9TH INDERCOS

International Dermatology and Cosmetology Congress

29 April-01 May 2024

İstanbul, Türkiye

Scientific Program
Lecture Summaries
Oral Presentations
Poster Presentations

SKIN APPENDAGE DISORDERS

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INVITATION

Dear Colleagues,

On behalf of the Scientific Committee, it is our great pleasure to invite you to join the 9th International Dermatology & Cosmetology Congress- INDERCOS, which will be held from April 29 to 01 May, in Istanbul, Türkiye.

For 8 consecutive years, INDERCOS has hosted an annual meeting attracting a growing number of national and international attendees from around the world that shared their knowledge, research, and best clinical practices, shaping the present and future of our specialty.

We hope that the 2024 meeting will be conducted in person, and preparations are already in progress to receive you in the beautiful city of Istanbul.

The program will highlight Skin Appendage Disorders, and the lectures and courses will be delivered by a team of world experts.

Topics will include the newest aspects in Skin Appendage Disorders In Dermatology.

We look forward to welcoming you to the 9th INDERCOS, and we hope you will have an unforgettable and joyful experience.

Sincerely,

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SCIENTIFIC PROGRAM

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29 April 2024, Monday

08:45-09:00	**OPENING SPEECH** ***İlknur Kıvanç Altunay***	
09:00-10:40	**Session: Investigative Dermatology** ***Chairs: Tamer İrfan Kaya, Mehmet Melikoğlu***	
	Microplastics and skin health	*Özgür Gündüz*
	Polysomnography analyses in skin diseases	*Özgür Timurkaynak*
	The infantile cutaneous microbiome: As dermatologic aspect	*Aslı Feride Kaptanoğlu*
	Melatonin levels in skin diseases (CTDs etc)	*Mehmet Melikoğlu*
	Resiprocal relationships in dermatology	*Simin Ada*
	Serendipity in dermatology	*Ahu Birol*
	Polypharmacy in dermatology	*Bachar Memet*
	Skin immunosenescence	*Demet Akpolat*
	GWAS data for psoriasis, skin cancer, allergy and CTDs	*Burhan Engin*
	PAMPs/DAMPs and dermatology	*Deniz Demirseren*
10:45-11:15	**COFFEE BREAK**	
11:15-12:25	**Session: Rational Drug Uses Session** ***Chairs: Emel Bülbül Başkan, Sanan Karimov***	
	Preventing psoriatic arthritis	*Emel Bülbül Başkan*
	High body-mass index associated dermatoses	*Aylin Türel Ermertcan*
	Coronary artery diseases associated dermatoses	*Rafle Fernandez*
	Hyperlipidemic drugs in dermatology	*Rafle Fernandez*
	Sparing phenomena in dermatology	*Şirin Yaşar*
	Kelloid - a modern approach	*Sanan Karimov*
12:30-13:30	**LUNCH**	

29 April 2024, Monday

13:30-15:20	**Session: What is New in Dermatologic Treatments** ***Chairs: Leon Kircik, Ayşenur Botsalı***	
	We will discuss evolving treatments targeting IL 13 pathway for Atopic dermatitis	*Leon Kircik*
	We will discuss evolving treatments targeting IL 36 pathway for generalized pustular psoriasis	*Leon Kircik*
	New topical combination formulas in dermatology	*Pelin Üstüner*
	Topical bexarotene: What is new?	*Ayşenur Botsalı*
	We will discuss the long term safety and efficacy of Apremilast for the treatment of psoriasis and psoriatic arthritis	*Leon Kircik*
	Laser for treatment of hyperpigmentation: What is new	*Tuğba Doruk*
	Selective Jak inhibitors in dermatology	*Salih Levent Çınar*
	We will discuss versatile uses of ivermectin in dermatology ; topical ivermectin for rosacea and oral ivermection for scabies	*Leon Kircik*
	Small molecules: Do they work vitiligo?	*Marta Kamalska*
	Biologics and small molecules for HS	*Monika Fida*
	Updates on the pathophysiology and treatment of melasma	*Firas Al-Niaimi*
	Senolytic drugs and herbs for skin aging	*Serap Öztürkcan*
15:20-15:40	**COFFEE BREAK**	

29 April 2024, Monday

15:45-18:15	**Prof. Dr. Meral Ekşioğlu Session: Hair and Sebaceous Gland Diseases** ***Chairs: Jelena Stojkovic Filipovic, Ayşe Serap Karadağ***	
	Female type of Adult Acne: What is new?	*Jelena Stojkovic Filipovic*
	Cosmetic procedures for Hair loss	*Ivana Binic*
	Epilation and Sex/STDs	*Bilal Doğan*
	Biologic and small-molecule treatments in Scalp and nail psoriasis	*Neslihan Demirel Öğüt*
	Biologic and small molecule treatments in alopecia areata	*Tea Rosovic*
	How I manage acne scars	*Firas Al-Niaimi*
	Pediatric acne: Treatment options	*Jelena Stojkovic Filipovic*
	Long Hair Transplantation: Is it better than convational hair transplantation?	*Assel Markabaeva*
	Enlarged pores - from lifestyle and diet to skincare and laser	*Victor Clatici*
	Non-inflammatory acne - 10 tricks from 25 years of experience	*Victor Clatici*
	Skin rejuvenation - the role of sebaceous glands	*Victor Clatici*
	Histopathological findings in common hair and sebaceous gland disorders	*Yasemin Yuyucu Karabulut*
	Rosacea: Treatment updates	*Marta Kamalska*
	Red scalp syndrome	*Natalia Kruk*

18:30-19:00	**ORAL PRESENTATION - 1** ***Chairs: Habibullah Aktaş, Erdinç Terzi*** OP-02, OP-03, OP-04, OP-06	
OP 02	Isotretinoin induced creatine phosphokinase elevations: clinical significance and comorbidities	*Gaye Güldiken Doğruel*
OP 03	Retrospective analysis of consultation flow of Psoriasis patients: The importance of holistic approach	*Isil Göğem Imren*
OP 04	Assessment of the Quality, Understandability, and Reliability of YouTube Videos as a Source of Information on Skin Self-Examination	*Işıl Göğem İmren*
OP 06	Effects of Isotretinoin Treatment on Menstrual Cycle in Acne Patients	*Banu Ismail Mendi*

30 April 2024, Tuesday

08:00-09:00 ORAL PRESENTATION - 2
Chairs: Ayşenur Botsalı, Özgür Gündüz
OP-09, OP-10, OP-11, OP-12, OP-13, OP-14, OP-15, OP-16, OP-17, OP-18

OP 09	A New HLA Susceptibility Haplotype Defined in Three Familial Cases of Frontal Fibrosing Alopecia	*Ahmet Kağan Özdemir*
OP 10	Dermatological Side Effects of Drugs Used in Oncological Treatment	*Nurgül Bayram Cantürk*
OP 11	Periorbital Purpuric Plaques: Immunoglobulin Light Chain Amyloidosis A Case Report	*Hülya Mürüvvet Güvendi*
OP 12	Erythema Multiforme Secondary to Orf	*Kadir Kaya*
OP 13	Psoriasis-Vitiligo Coexistence	*Kadir Kaya*
OP 14	A Patient with a Severe Rosacea-like Rash and Outline of Skin Toxicity of Epidermal Growth Factor Receptor Inhibitors	*Semahat ALP*
OP 15	Tofacitinib-induced paradoxical psoriasis	*Isikhan Ozkir*
OP 16	Evaluation Of Covid-19 Expression In Skin Biopsies After Covid-19 Vaccination And/Or Infection	*Nur Gizem BOLAT*
OP 17	Success of triple agent therapy in patients with Stevens-Johnson syndrome/Toxic epidermal necrolysis: Tertiary referral hospital experience	*Seyfettin Mahir Koçak*
OP 18	The Long Term Management of a Basal Cell Carcinoma Undergoing Reconstructive Procedures Before the Acquisition of Negative Margins	*Ismail Hakkı Ünal*

09:00-10:50 Session: Myths and facts in Dermatology
Chairs: Habibullah Aktaş, Natasha Teovska Mitrevska, Erdinç Terzi

Mass-drug administration in dermatology: Does it work?	*Habibullah Aktaş*
Cutaneous manifestations of orthostatic intolerance syndromes	*Özge Akbulak*
The use of sulfur in dermatology: Is it evidence-based treatment?	*Gökşen Ertuğrul*
Viral infections and drug hypersensitivity: Is there any real connection?	*Işıl Bulur*
Pregnancy test in dermatology: Should we screen before all systemic drugs?	*Semahat Alp*
Periocular involvement of pigmentation disorders: Do lasers work	*Natasha Teovska Mitrevska*
Treatment of molluscum contagiosum: Is it easy?	*Zoran Nedic*
Dermatological rehabilitation: Is it a problem for dermatologist?	*Zeynep Topkarcı*
Compression therapy in dermatology: Does it work?	*Vesna Karanikolic*
Evidence-Based Treatment of Vitiligo	*Marcel Bekkenk*
RF for skin appendage disorders	*Meltem Önder*
Lasers and scars	*Firas Al-Niaimi*

11:00-11:30 COFFEE BREAK

30 April 2024, Tuesday

11:30-13:00	**Session: Dermato-Allergy** ***Chairs: Ragıp Ertaş, Kemal Özyurt, Oktay Taşkapan***	
	Research progress in Atopic March	*M. Burak Yücel*
	Filaggrin and atopy: Barrier dysfunction	*Rafet Koca*
	Post-scabietic pruritus: What is new?	*Oktay Taşkapan*
	Atopic Phenotypes	*Andaç Salman*
	Microbial interactions in atopy	*Özge Karstarlı*
	Topical steroid induced-hypersensitivity reactions	*Ömer Kutlu*
	Triclosan contact hypersensitivity	*Yılmaz Ulaş*
	Moisturizers in the prevention of contact dermatitis	*Özlem Su Küçük*
	Connubial contact dermatitis and other dermatoses	*Esranur Ünal*
	New and emerging treatments in atopic dermatitis	*Suzana Ljubojevic*
13:00-14:00	**LUNCH**	
14:00-15:10	**Session: General Dermatology** ***Chairs: Habibullah Aktaş, Recep Dursun***	
	Gaita analyses in dermatology	*Semahat Alp*
	Hepatotoxic/Nephrotoxic/Pancytopenic drugs in dermatology	*Nagihan Sahillioğlu*
	Dermatologic drug-induced hair and nail problems	*Zeynep Altan Ferhatoğlu*
	Gentian violet in dermatology	*Habibullah Aktaş*
	Review and reappraisal of cupping in dermatology	*Amor Khachemoune*
	Recurrent superficial fungal diseases: challenges and solutions	*Nursel Dilek*
	Better IVIG choice for dermatologist in TEN	*Kenan Aydoğan*
	Dapson treatment for skin appendage disorders	*Melek Aslan Kayıran*
	Dermatoses pregnancy: Classification, diagnosis, and treatment	*Oleg Pankratov*
	Nail abnormalities as an indicator of general ora skin diseases	*Oleg Pankratov*
	Dermatologic emergencies in 2023	*Oleg Pankratov*
15:10-15:30	**COFFEE BREAK**	

30 April 2024, Tuesday

15:30-16:20 Session: Skin Cancers
Chairs: Amor Khachemoune, Marcel Bekkenk, Erdinç Terzi

Appendageal skin tumors management with Mohs Microscopic surgery	*Amor Khachemoune*
Periungual tumors	*Eckart Haneke*
Common skin appandages tumors	*Sümeyre Seda Ertekin*
Skin appendage involvement in melanoma	*Burcu Beksaç*
Skin appendage involvement in mycosis fungoides	*Burcu Beksaç*
Various uses of vascular lasers in nonvascular dermatological conditions	*Firas Al-Niaimi*
Diagnosis and treatment of lentigo melanoma	*Marcel Bekkenk*
Poikilodermatous mycosis fungoides: Clinical case	*Oleg Pankratov*

16:30-17:30 ORAL PRESENTATION - 3
Chairs: Özge Karstarlı, Gökşen Ertuğrul
OP-19, OP-20, OP-21, OP-22, OP-23, OP-24, OP-25, OP-26, OP-27, OP-28, OP-29, OP-30

OP 19	Dermoscopy of rosacea and comparison of dermoscopic features in subtypes of rosacea: Preliminary results of a prospective, descriptive study	*Pınar Özdemir Çetinkaya*
OP 20	Rapidly Presenting Bleeding Nodule on the Flexor Aspect of the Wrist	*Ipek Yılmaz*
OP 21	Rare Nail Apparatus Disorder/Disease	*Damla Melemezoğlu*
OP 22	Hydroxyurea Induced Multiple Actinic Keratoses A Case Report	*Hülya Mürüvvet Güvendi*
OP 23	Evaluation of Clinical Characteristics and Treatment Modalities in Patients Diagnosed with Sweet Syndrome	*Pelin Ertop Doğan*
OP 24	Retrospective evaluation of clinical characteristics, comorbidities and treatment responses of patients diagnosed with pyoderma gangrenosum	*Abdullah Kutay Masat*
OP 25	Analysis of Patch Test Results in Adult Patients in Adana Province; Single Center Experience	*Merve Erkoç*
OP 26	Clinical and dermoscopic findings of the basal cell carcinomas on the head and neck region	*Melisa Kural*
OP 27	Relation Between Demographic Status And Clinical Characteristics In Kaposi Sarcoma A Single Center Study	*Ayşe Türkmen*
OP 28	The improvement of a hard-to treat condition with nanofat injection: Facial papules related to frontal fibrosing alopecia	*Akın Tuna*
OP 29	Radiotherapy of Basal Cell Carcinoma: A Single-Centre Experience From The Eastern Black Sea Region of Turkey	*Yaren Kandaz*
OP 30	Investigation of Androgenetic Alopecia Risk Factors And HLA Alleles Relationship	*Tuğba Tehçi*

01 May 2024, Wednesday

07:50-08:30 ORAL PRESENTATION - 4

Chairs: Nazlı Caf, Mustafa Tümtürk

OP-08, OP-31, OP-32, OP-33, OP-34, OP-35, OP-36, OP-37

OP 08	Merkel cell carcinoma on the nose in a psoriasis patient using cyclosporine for a long time	*Selami Aykut Temiz*
OP 31	Comorbidities in Patients with Pemphigus: A Retrospective Case-Control Study	*Elif Nur MERAL*
OP 32	Crusted Scabies Cases in Immunosuppressed Patients: Case Series	*Beste Pakırdaşı*
OP 33	Benign Hair Follicle Tumors in a Tertiary Center Dermatology Clinic: A Retrospective Analysis	*Burcu Beksaç*
OP 34	The relationship between psychological distress and neurotrophins in patients with alopecia areata: a cross-sectional study	*Hilal Kaya Erdoğan*
OP 35	Radıotherapy of Malign Melanoma: A Sıngle Instıtutıon Experıence From North East Turkey	*Ayşenur Kadı Gedikli*
OP 36	Female Pattern Hair Loss and Hirsutism: Is there a relationship with disease subtype?	*Nazlı Caf*
OP 37	Can iris freckles be a predictor for basal cell carcinoma? A case-control study	*Metin Özaslan*

01 May 2024, Wednesday

08:30-11:10	**IJAC (International Jordanian Aesthetic Conference) Session** ***Chairs: Mithad Abdelmalek, Zahide Eriş, Belma Türsen***	
	Laser treatments of filler complications in aesthetic dermatology	*Zahide Eriş*
	Aesthetic Dermatology in Psoriasis	*Banu Ertekin Taşkın*
	Cosmetic Procedures in Connective Tissue Disorders	*Laura Atzori*
	Aesthetic Dermatology Procedures in Inflammatory Hair Disorders	*Bobur Toirov*
	Steroid atrophy and aesthetic dermatology procedures	*Emre Tayfun*
	Male and female androgenetic alopecia treatments according to evidence based efficacy	*Nazlı Caf*
	Self-injections in aesthetic dermatology	*Aslı Tatlıparmak*
	Drug/Food/Supplement interactions with Botulinum toxin	*Filiz Kuşak*
	Cosmetic procedures in nail diseases	*Şule Güngör*
	Scarless fetal healing: How can we obtain for aesthetic	*Şükran Sarıgül*
	Tips to open new dermatology clinic	*Victor Clatici*
	Botulism and resistance risks in cosmetic botulinum toxin treatment	*Zekai Kutlubay*
	Tricks for nose and lip elevations	*Hüray Hügül*
	How to open a laser clinic	*Victor Clatici*
	Embracing the passage of time exploring pro-ageing and anti-ageing non-invasive techniques	*Mithad Abdelmalek*
	The path to a beautiful chin; Non-invasive double chin removal	*Mithad Abdelmalek*
	Step by step Hair transplantation	*Mustafa Tümtürk*
	Delayed edema after dermatologic laser treatments	*Natalia Kruk*
	Botulinum toxin injections for hyperhidrosis	*Tamer İrfan Kaya*
	The New Frontier in Aesthetic Medicine: Balancing Bio-Stimulators with Traditional Dermal Fillers	*Mauhannad Adas*
	Periocular rejuvenation: A holistic approach from bone to skin	*Ammar Batayneh*

01 May 2024, Wednesday

11:15-11:45	**COFFEE BREAK**	
11:45-13:35	**Session: Psycho-Dermatology** ***Chairs: İlknur Kıvanç Altunay, Mohammad Jafferany, Belma Türsen***	
	Insomnia related skin diseases	*Ayberk Aktaran*
	Psycho-Dermatology in Hair Diseases	*Melek Aslan Kayıran*
	Psycho-Dermatology and Acneiform Diseases	*İlayda Gülsunay*
	Chronic pain management in psycho-dermatology	*Hilal Kaya Erdoğan*
	Chemsex and STDs	*Mihael Skerlev*
	Dupilumab and DLQI	*Katlein Franca*
	Somatization, conversion and dissociation related skin disorders	*Mohammad Jafferany*
	Facticious diseases in dermatology	*İlknur Kıvanç Altunay*
13:35-14:30	**LUNCH**	
14:30-16:00	**Session: Dermoscopy** ***Chairs: Ömer Faruk Elmas, Verce Todorovska***	
	Many faces of BCC, dermoscopy and histology correlations	*Verce Todorovska*
	Dermoscopy for nail: Tips and tricks	*Abdullah Demirbaş*
	Dermoscopic analyeses for scalp	*Asmahane Souissi*
	Vascular patterns for periungual area	*Selami Aykut Temiz*
	Trichoscopy for telogen effluvium and its diagnostic criteria: Significance for dermatologist	*Natalia Kruk*
	Mycosis fungoides: Dermoscopic experiences	*Natalia Salwowska*
	Eccrine Clues In Melanoma	*Pawel Pietkiewicz*
	Pearls and pitfalls in the management of spitzoid-looking lesions	*Ömer Faruk Elmas*
16:00-16:20	**CLOSING LECTURES**	
	WHA Publishing	*Torello Lotti*
	Scarring Alopecia Transplantation	*Roxanna Sadoughifar*

LECTURE SUMMARIES

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MICROPLASTICS AND SKIN HEALTH

Özgür Gündüz

The Word “Plastics” Describes A Vast Array Of Materials Composed Of Polymeric Compounds (E.g., Ethylene, Propylene, Styrene, Vinyl Chloride, Etc.) With Properties Such As Plasticity (The Capability To Be Shaped By Application Of Heat Or Pressure Usually), Low Density, Durability, Toughness, And Low Electrical Conductivity. Microplastics (Mps) Are Plastic Particles Or Fragments With A Diameter Of Less Than 5mm. Nanoplastics (Nps) Are Similar Particles With Size < 1 Mm.

Plastic Materials Can Be Mass-Produced At Meager Costs. Because Of That, Plastic Materials Are Produced And Used Extensively On A Global Scale, Which, In Turn, Causes The Accumulation Of Plastic Waste Materials In The Environment. The Nonbiodegradability Of Most Plastic Wastes Makes Them Persistent Pollutants.1 The Breakdown Of Plastic Materials Through Solar Ultraviolet Radiation, Abrasive Effects Of Winds, Waves, Etc., Leads To The Formation Of Smaller Plastic Particles, Such As Micro- And Nanoplastics (Secondary Mps).

The Dimensions Of Mps And Nps Allow Them To Diffuse Into Various Organic Tissues And Through The Cell Membranes, Enter The Marine Food Chain On The Plankton Level, And Enter The Human Body.

Mps Are Also Intentionally Produced And Used For Various Industrial Or Medical Applications (Primary Mps). Many Skincare Or Biomedical Products Contain Microplastic Particles, Including Soaps, Cosmetics, Facial Scrubs, Toothpaste, And Drugs With Np-Based Delivery Systems.

Current Data On The Effects Of Microplastic Exposure Via Skin On The Human Body Is Minimal. Current Studies Point Out The Potential Detrimental Impact Of Mps, Such As The Induction Of An Immune Reaction Capable Of Damaging The Skin Barrier, The Induction Of Mitochondrial Apoptotic Pathways, The Induction Of Cellular Oxidative Stress, And The Production Of Dysfunctional Proteins.2,3

The Extensive Utilization Of Plastics Worldwide And The Resulting Massive Plastic Pollution Pose An Impending Threat To Wildlife And Public Health. Diseases Caused By The Direct And Indirect Effects Of Plastics Will Probably Be More Frequently Seen In The Near Future. New Public Health Policies And Policies For Recycling And Disposal Of Plastic Waste Must Be Developed And Prioritized.

1. Ziani K, Ioniță-Mîndrican C-B, Mititelu M, Neacșu Sm, Negrei C, Moroșan E, Drăgănescu D, Preda O-T. Microplastics: A Real Global Threat For Environment And Food Safety: A State Of The Art Review. Nutrients. 2023; 15(3):617.
2. Saha S, Laforsch C, Ramsperger A, Niebel D. Mikroplastik Und Dermatologische Versorgung [Microplastic And Dermatological Care]. Dermatologie (Heidelb). 2023 Jan;74(1):27-33. German. Doi: 10.1007/S00105-022-05035-Z. Epub 2022 Aug 22. Pmid: 35994101; Pmcid: Pmc9395856.
3. Aristizabal M, Jiménez-Orrego Kv, Caicedo-León Md, Et Al. Microplastics In Dermatology: Potential Effects On Skin Homeostasis. J Cosmet Dermatol. 2024; 23: 766-772.

POLYSOMNOGRAPHY ANALYSES IN SKIN DISEASES

Özgür Timurkaynak

Polysomnography (PSG) is defined as the continuous monitoring and simultaneous recording of physiologic activity during sleep.

Sleep is a physiological, fundamental, active process that takes around one-third of humans' lives. It is regulated by two major processes homeostatic sleep drive and circadian system Skin plays an important role in proper sleep activity, which includes control of thermoregulation, core body temperature, sleep onset, and awakenings during sleep

The relationship between sleep disorders and chronic skin diseases can indeed resemble a "chicken and egg" situation, where it's challenging to determine which condition precedes or causes the other. This bidirectional relationship is characterized by complex interactions.

Poor sleep can impair skin barrier function and can cause impaired wound healing. Lack of sleep can lead to systemic inflammation, potentially exacerbating skin conditions like psoriasis or eczema also disrupted sleep can affect hormonal balances, which in turn can influence skin conditions and poor sleep can increase stress levels, leading to flare-ups in conditions like acne, psoriasis, or eczema.

On the other hand chronic skin diseases can also affect sleep quality by causing physical discomfort due to itching, pain, or discomfort from the skin conditions itself and can lead to difficulty falling asleep or frequent awakenings. Also, the stress and anxiety associated with managing a chronic skin condition can negatively impact sleep quality. Lastly some treatments for skin conditions can interfere with sleep like systemic corticosteroids that can readily cause insomnia.

It's important for healthcare providers to consider both aspects of this relationship.

Studies on PSG have been mainly focused on chronic dermatoses that are commonly pruritic and/or painful, including atopic dermatitis, psoriasis, chronic spontaneous urticaria, prurigo nodularis, hidradenitis suppurativa, acne vulgaris and lichen planus,

Nocturnal itch itself is undoubtedly associated with chronic skin diseases mentioned above but also with lichen simplex chronicus and bullous pemphigoid, conditions with erythroderma or skin infestations (e.g. bed bugs, scabies, pediculosis, pinworms)

Moreover, non-dermatological conditions associated with nocturnal pruritus, including chronic kidney and liver disease, hematopoietic disorders, substance abuse, neurological (e.g. Brachioradial pruritus) and psychological disorders (e.g. depression, schizophrenia, stress, delusional ideation), and restless legs syndrome.can disrupt sleep

Further investigation into objective measurements of the quality of sleep, such as long-term questionnaire-based epidemiological studies, is necessary to understand the nature and exact mechanism of poor sleep among sufferers with chronic skin diseases.

Therefore, reliable guidelines concerning the evaluation and management of sleep disorders in chronic dermatological patients should be provided. Furthermore, the management of sleep disturbance in patients with chronic dermatoses should focus on effective disease control with strategies for itch and pain relief as well as on possible medical interventions to help improve sleep.

Dermatologist should also focus on taking a specific history when evaluating a patient with chronic skin conditions, and therapy should be directed toward managing nighttime sleep quality.

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SERENDIPITY IN DERMATOLOGY

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In human history; Serendipity is a pleasant surprise of finding a particularly useful information while not looking for it. According to the Oxford English dictionary Serendipity is "the occurrence and development of events by chance in a happy or beneficial way."

Significant historic events occurring as a result of serendipity include the discovery of the law of buoyancy (Archimedes principle) by the Greek mathematician Archimedes, of the Americas by Christopher Columbus and of gravity by Sir Isaac Newton.

The role of serendipity in science has been immensely beneficial to mankind.

In the field of dermatology, serendipity has been responsible for major developments in the therapy of psoriasis, hair disorders, aesthetic dermatology and dermatosurgery. Besides these many other therapeutic modalities in dermatology were born as a result of such happy accidents.

1. The history of dermatologic topical hair-growth agent, minoxidil, which was found to affect scalp hair growth in androgenetic alopecia. Its initial use as a blood pressure medication (1,2).
2. Finasteride is a 5-α-reductase type 2 isoenzyme inhibitor. The drug (5 mg per day) had FDA approval for benign hypertrophy of prostate since1992. It was accidentally discovered to grow hair on the bald scalp of men using this drug (3).
3. Long-term use of cyclosporine was found to produce hirsutism in renal transplant patients (4).
4. Spironolactone is a potassium sparing diuretic that was used as an antihypertensive drug. It was seen to improve hirsutism in a woman with concomitant polycystic ovarian disease. It was found to interfere with androgen-related hair growth. Hence, it has been subsequently used as an off-label drug for hirsutism. (5).
5. Dithranol, vitd3 analogs, methotrexate, cyclosporine usage in psoriasis is serendipity (6,7,8)
6. Propranolol a β blocker, is generally used for hypertension. It was serendipitously found to improve the nasal hemangioma in an infant when administered for hypertrophic cardiomyopathy. Recently, it has replaced corticosteroids as a therapy for this condition. (9)
7. In 2001, the Food and Drug Administration (FDA) approved bimatoprost (Lumigan, Allergan, Irvine,CA) a prostaglandin-analog for the reduction of high intraocular pressure in open-angle glaucoma or ocular hypertension. The most common treatment-related adverse events were conjunctival hyperemia, eye pruritus, dry eye, skin hyperpigmentation, and growth of lashes. The ''side effect'' of eyelash growth was thought to be interesting and was seen with many patients using this prostaglandin eyedrop. This was the serendipity in the eyelash growth discovery that eventually lead to FDA approval of Latisse (Allergan) for eyelash hypotrichosis in December 2008.(10).
8. Botulinum toxin; In 1987, a patient suffering from blepharospasm was being treated with botulinum toxin by Dr. Jean Carruthers, a Canadian ophthalmologist. The patient noted that with every injection of Botox, the wrinkles on the forehead between her eyebrows seemed to be disappearing (11)
9. Serendipity due omalizumab: also useful for treating pemphigus? It needs more studies (12).

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IMMUNOSENESENCE

N. Demet Akpolat

The role of skin

- The skin is the largest active immune organ that covers the body and maintains skin homeostasis.
- Skin immunosenescence is a term to decline in function or number of all skin cells responsible for immune surveillance.

What is ''*Immunoseneces*" ?

- Immunosenescence is a complex multifactorial phenomenon
- It consists of remodeling of the immune system during the life span, resulting in an age-related qualitative–quantitative decline of immune cells and cytokines.
- Senescent cells, promoted by telomere shortening and genome instability, remain SASP secreting low level of pro-inflammatory cytokines including IL-1β, IL-6, and CRP, thus altering the skin's microenvironment.

Why it is so important?

- In the recent international literature is highlighting the etiopathogenetic role of skin immunosenescence in the onset of various dermatologic conditions.
- In particular, immunosenescence contributes to the increased susceptibility to skin disorders with malignancies, infections, and autoimmunity in the elderly.
- The clinical implications of this phenomenon are the onset of a wide range of age-related diseases, including metabolic, cardiovascular, and neurodegenerative disorders, cancer or COVID 19.
- This would help us to explain the occurrence of apparently unconnected comorbidities.

Structural and Functional Hallmarks of Immunosenecens

- The pathophysiological structure of skin immunosenescence is characterized by the interaction of processes at both molecular and cellular levels:
- The first process is the direct impact of immune cell aging and its related events, including
    - pro- inflammatory cytokine habitus, genomic instability, changes in cellular metabolic pathways, phagocytic hypo/a-responsiveness, and impaired vaccine response.
- The second process is the indirect influence of cellular aging in the tissue, resulting in
    - non-specific and specific immunological patterns of molecular signaling, ıt causes weakining of various anatomical barriers.
- The three domains of the immune system are affected with this scenario.
    - The first domain is the protective epithelial skin and mucous membrane barrier, which acts as the body's first line of defense.
    - The second domain is the innate immunity. It also has an age-related low rate of chronic inflammation and a poor response to pathogens.
    - The third domain is the barrier of acquired immunity, which has age-related reduced hematopoiesis of naïve lymphocytes.
- Furthermore, functional changes related to skin immunosenescence reduce delayed skin hypersensitivity.
    - This reduction is linked to an aging-related maturative inhibition of dendritic cells and a functional decline in Th1 immunity.

Conclusions

- Cellular senescence and its biomolecular mechanisms have close correlation with the onset of several age-related diseases.
- The ultimate goal is the lengthening of health span.

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GWAS DATA FOR PSORIASIS, SKIN CANCERS, ATOPIC DERMATITIS AND SLE

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GWAS Data For Psoriasis

Psoriasis is a common chronic inflammatory skin disease. There are many identified risk factors for psoriasis. Genetic factors play an important role in the development of the disease. Genome-wide association studies have identified multiple susceptibility loci for psoriasis.

Nine loci (PSORS1 to PSORS9) have been associated with psoriasis. Of these loci, PSORS1, which is in the MHC region and has HLA-Cw6 as the susceptibility allele, is recognized as the primary factor influencing susceptibility to Psoriasis. In addition, PSOR1 accounts for approximately 35% to 50% of the genetic contribution to Psoriasis susceptibility and the occurrence of early-onset Psoriasis is correlated with PSOR1. PSORS2 and PSORS4 are examples of other associated loci for Psoriasis.(1)

CARD14 is the most likely susceptibility gene in PSORS2 which expresses nuclear factor-κB (NF-κB) activator.
CARD14 contains variations linked to both rare and common manifestations of Psoriasis.(1).

The loci that contains the late cornified envelope (LCE) genes and responsible for encoding stratum corneum proteins is PSORS4.

Many GWAS studies have been carried out up to now, the first of which took place in 2007.
The first study collected 1446 cases and 1432 controls in Europeans and genotyped 25,215 SNPs genome-wide.
The findings indicated a significant association between psoriasis susceptibility and variants located at IL12B and IL23R.(2)

Moreover, IL12B, LCE3A, and LCE3D were found to be significantly associated with PV susceptibility according to a study carried out in 2009. (2) Within the LCE3, the genetic variant(s) can disrupt the terminal keratinocytotic differentiation which in return may impact the development of Psoriasis (Ps) and Psoriatic Arthritis (PsA). (2)

In a large-scale GWAS, involving 8312 psoriasis cases and 12,919 controls from China, six genes have been identified to be (ERAP1, PTTG1, CSMD1, GJB2, SERPINB8, and ZNF816A) associated with Psoriasis susceptibility.

The study also included a replication analysis of a GWAS conducted among individuals of European ancestry, involving 3293 cases and 4188 controls from Germany, as well as 254 nuclear families from the USA.
Results from the European cohort showed that, similar to the findings in China, ZNF816A and GJB2 were associated with psoriasis vulnerability. However, ERAP1, PTTG1, CSMD1, and SERPINB8 did not exhibit associations in the European population. The heterogeneity of psoriasis susceptibility between Chinese and European populations has been demonstrated by this study. (2)

Another GWAS study which focused on Psoriatic Arthritis (PsA) in Germany, included 609 PsA patients and 990 controls and its results were subsequently validated in six other European studies. This study identified an association between PsA and TRAF3IP2 in European populations. Notably, this association had not been previously reported in familial linkage studies. The utility of GWAS in uncovering previously unknown variants linked to Psoriasis-related conditions has been highlighted by this study. (2) TRAF3IP2 encodes a protein involved in IL-17 signaling which is thought to be important in the pathogenesis of Psoriasis. (2)

After the identification of 15 new susceptibility loci by a large-scale GWAS meta-analysis, the number of psoriasis-associated loci in Europeans increased to 36. (2)

Significant associations in 10 regions with PsA and 11 with PsC at a genome-wide significance level were revealed after the combination of findings from previous studies of a large GWAS in 2015. (2)

An extensive GWAS for Psoriasis, involving over 39,000 effective samples, has identified 16 new loci associated with Psoriasis vulgaris (PV), bringing the total number of associated loci to 63, with these loci contributing up to 28% of the genetic heritability in PV.

Analysis using data from GWAS and drug databases identified seven genes and six new loci as potential targets for drug repositioning. Significant correlations with TNFAIP3- interacting protein 1 (TNIP1) and the MHC region were identified by a large-scale Japanese GWAS for PV. (2) In Europeans, TNIP1 has also found to be associated with PV according to GWAS. These findings imply that the modulation of Toll-like receptor signaling plays a significant role in the development of Psoriasis

vulgaris (PV) across diverse global populations. (2)

To sum up, GWAS studies enhances our understanding about both the pathogenesis and treatment methods of PV.

GWAS Data For Cutaneous Melanoma

Cutaneous Melanoma represents the most severe type of skin cancer. There are several risk factors associated with Cutaneous Melanoma, including genetic factors. The data from GWAS is helpful in determining the genetic predisposition for Melanoma.

The initial GWAS of Melanoma risk identified susceptibility loci at 20q1122 including MTH7B, PIGU and 9p21, a region adjacent to the CDKN2A(familial melanoma susceptibility locus).

More than 20 additional loci have also been identified including skin pigmentation genes (MC1R, OCA2, ASIP/RALY, TYR, IRF/EXOC2 and SLC45A2), repairing of DNA (PARP1), epidermal development (CASP8), telomere maintenance (TERT/ CLMPT1L and OFBC1) and cell-cycle progression (CCND1, CDK10 and ATM).(3)

GWAS Data For cSCC

Three GWAS, focusing on cutaneous squamous cell carcinoma (cSCC), have identified numerous skin pigmentation genes including 5p13 (SLC45A2), 6p25 (IRF4), 9p22 (BNC2/CNTLN), 11q14 (TYR), 15q13 (HERC2/OCA2), 16q24 (DEF8/ MC1R) and 20q11 (ASIP/ RALY).
Additional significant loci include variants containing the metastasis suppressor gene CADM1.(3)

Eight previously undiscovered loci (linked to SCC) were identified after a meta-analysis involving 19,149 cases of squamous cell carcinoma (SCC) and 680,049 control subjects. This analysis also validated all previously established loci and conducted detailed mapping of causal variants. These loci include rs10399947 (1q21.3), rs10200279 (2q33.1), rs10944479 (6q15), rs7834300 (8q23.3), rs1325118 (9p23), rs7939541 (11p15.4), rs657187 and rs11170164 (12q13.13), rs721199 (12q23.1) (4)

These loci contain genes which play a role in cancer progression (SETDB1: rs10399947, CASP8/ ALS2CR12: rs10200279, WEE1: rs7939541), regulation of immunity (BACH2: rs10944479), differentiation of keratinocytes (TRPS1: rs7834300, KRT5: rs11170164 and rs657187), and pigmentation (TYRP1: rs1325118). (4)

GWAS Data For BCC

BCC is the most common type of cancer in White population. There are various risk factors for its development, especially UV exposure. Genetic variants that may influence BCC have been identified by Genome-wide association studies (GWAS).

The initial GWAS (2008) identified signals at 1p36 (including PADI4, PADI6, RCC2 and ARHGEF10L) and 1q42. Later, other studies have identified several susceptibility loci which play a role in the pigmentation of skin, immunity (HLA-DQA2, HLA-B, LPP, NEU1, ZBTB10 and TICAM/PLIN3) and maintenance (TERT/ CLPTM1L and OBFC1). (3)

Tumour progression loci include TP53(tumour suppressor gene), MYCN oncogene, p13 (transcription factor FOXP1), 7q221 (CUX1), 7q123 (TNS3) and 6q27 (MIR3939).

Epidermal development genes, including type 3 transglutaminase (TGM3), keratin 5 (KRT5), 10p14 (GATA3), and 2q33 (CASP8/ALSCR12), harbor susceptibility loci associated with certain conditions. (3)

In a GWAS study which includes 17,416 cases and 375,455 controls, a total of 71 GWAS loci and 46 functional candidate BCC susceptibility genes were identified. Decreasing the expression of 26 susceptibility genes and increasing the expression of 20 susceptibility genes leads to increased risk of BCC. A better understanding of genes and proteins associated with the biology TReg cell gained via the pathway analysis of the functional candidate gene regulatory network. (5)

GWAS Data For Atopic Dermatitis

Atopic Dermatitis is a chronic inflammatory skin disease which can be influenced by both environmental and genetic factors.

Loci associated with abnormalities of the skin barrier, especially on chromosome 1q21, including FLG, have been identified by several genome-wide association studies (GWAS) and linkage studies.
Moreover, new loci, including candidate genes involved in the regulation of first line of defense and functioning of T cells have been implicated via these studies.

Loss-of-function variants in FLG found to be associated with a three- to fourfold increased risk of Atopic Dermatitis. Nevertheless, these genetic susceptibility regions only explain less than 20 percent of the overall hereditary influence on Atopic Dermatitis. (6)

Genes associated with Atopic Dermatitis, except from FLG, have also been identified by other GWAS studies.

31 loci associated with Atopic Dermatitis were found which were mostly replicated loci. These include:
complex of epidermal differentiation on 1q21.3 (including FLG); the cytokine cluster on 5q31.1 (including genes encoding IL-13 and IL-4); the locus on chromosome 11q13.5, between two candidate genes, EMSY and LRRC32.(7)

81 genome-wide significant independent associated loci identified by another meta-analysis of 60,653 AD cases and 804,329 controls. Of these loci, 52 of them were at previously reported loci and 29 were novel.(8)

GWAS Data For SLE

The etiology of systemic lupus erythematosus (SLE) remains unknown and is clearly multifactorial and complex.

Over 100 gene loci that predispose to polygenic SLE have been identified by Genome-wide association studies (GWAS). In addition, more than 30 genes which cause monogenic forms of SLE or SLE-like phenotypes have also been identified via GWAS. Nevertheless, this genetic information contributes to only 30 to 40 percent of susceptibility to SLE. The genetic factors that contributes to the highest hazard ratios (HR) of 5 to 25 include deficiencies of the complement components C1q, C4A and B, C2, or the existence of a mutated TREX1 gene. Major histocompatibility (MHC) locus is the site of most common genetic predisposition.

5 new loci associated with SLE were identified after a meta-analysis including 907 SLE patients and 1524 controls: GRB2, SMYD3, ST8SIA4, LAT2 and ARHGAP27.

According to pathway analysis, SLE risk is significantly correlated with a number of biologica processes like CTLA4 co-stimulation during activation of T-cells, B cell receptor signaling, signaling of interleukin-4 and cell surface interactions at the vascular wall .(9)

113 risky loci were identified, 46 of which were new in another meta-analysis including 13377 SLE patients and 194993 controls. In that study, 11 exonic variants were identified including two missense variants within novel loci CHD23 and LRRK1, four novel missense variants within known SLE loci IKBKB,9 TYK2,9 WDFY437 and OAS1,33 and three known missense variants within known AHNAK2,33 IRAK134 and NCF2.

In cell migration, CHD23 plays a role and LRRK1 expresses a multiple-domain leucine-rich repeat kinase. (10)

According to a study, LRRK1-deficient mice has shown a defective proliferation and survival of B-cells and impaired activation of B-cell receptor-mediated NF-κB. An association within this genomic area might contribute to the risk of SLE by regulating both the NF-κB pathway and B cell activities. (10)

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NEW TOPICAL COMBINATION FORMULAS IN DERMATOLOGY

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Compounding is a way of personalizing prescriptions to best suit the individual needs of each patient while being able to avoid side effects of systemic medications. Multiple ingredients with different mechanisms of action can be combined in a single medication for patients to use, which ultimately can simplify their treatment regimen. Although most active drugs have been tested independently, there is little data on the safety of compounding 2 or more active drugs. Nanotransporters are 1-1000mm sized drug transporters including inorganic substances; silica, calcium phosphate, metalic nanoparticules or organic molecules polimers and lipid based nanoparticules. They aim continuous secretion of theraupetic substance, enhancement of cutaneous penetration, preventing spoilage and targeting the follicular structure, Nanostransporters are available for combination treatment protocols and they are easly designed as a smart drug delivery system for especially acne treatments.

In a clinical study including 60 patients with mild-moderate facial acne the efficacy and safety of Tazarotene 0.1% Plus Clindamycin 1% Gel Versus Adapalene 0.1% Plus Clindamycin 1% Gel was examined. Both treatment regimens were efficacious, but tazarotene plus clindamycin was found to be superior to adapalene plus clindamycin. In markets, Epiduo fort gel including 0.3% adapalene and 2.5% BPO is also available for mild-moderate acne vulgaris. In a recent study once-daily treatment with the novel fixed-dose triple-combination clindamycin phosphate 1.2%/BPO 3.1%/ adapalene 0.15% gel demonstrated superior efficacy to all other double combination products. Besides, Twyneo (a fixed dose comb. of tretinoin 0.1% and BPO 3%) uses microencapsulation to keep the formula away from becoming unstable. Microencapsulation is the secret behind 'slow release' technology and helps minimize irritation. The combination of clindamycin, BPO, superoxide dismutase and Vitamin D3 form a powerful prescription-grade acne-fighting solution. For the use of accompanying disorders with acne vulgaris such as acne and melasma the triple combination including Retinoic acid 0.025, Clindamycin 2%, Hydroquinone 4%; for acne and hirsutism double combination of Clindamycin 2% and Eflornithine 11.5%; for acne and seborrheic dermatitis Clotrimazole 1% and Erythromycin 2% are all available.

For the treatment of Erythematotelangiectatic (ET) Rosacea; Substances to strengthen blood vessels (e.g., extracts of Indian horse chestnut, Ruscus aculeatus, Melilotus officinalis, or lemon myrtle) that tend to attenuate the persistent erythema and flushing are most commonly compounded in topicals. Numerous products such as thermal waters and a variety of creams pharmaceutical compounding offers the advantage of combining with metronidazole or topical anti-irritants (e.g., enoxolone, alpha bisabolol) and venotonic agents to prevent disease progression.For sensitive skin and flushing complaints Enoxolone 0.5%-1%, Alpha bisabolol 1%, Hyaluronic acid 5% and Aloe vera 10% combination is very useful. Moreover, Azelaic acid offers an advantage of compatibility with many different vehicles as well as it can be combined with metronidazole for the treatment of papulopustular rosacea. Sodium sulfacetamide 10% is often combined with organic sulphur 5%.

In a comparative clinical study about two different topical combination formulas for the treatment of melasma patients were either received New Trio (NT) cream or Kligman's Trio (KT) cream randomly once daily for 12 weeks. Both included 0.1% retinoic acid and 0.1% dexamethasone; however, NT cream contained 0.1% isobutylamido-thiazolyl-resorcinol, while KT cream contained 5% HQ. NT combination demonstrated efficacy and significant improvement in the quality of life in treating melasma patients, making the approach a significant potential alternative to Kligman's TriO. In addition to this, Tam's formula 12% hydroquinone (HQ), 6% Kojic acid, 5% vitamin C resulted with a MASI score reduction in an average of 63.77+-22.10 percent in 6 women having melasma. As a result, topical HQ 4% in monotherapy or combined with corticosteroids (dexamathasone and fluocinolone acetonide) and retinoids (tretinoin); arbutin (1%), methimazole (5%); kojic acid (2%), azelaic acid (20%) and tranexamic acids (TA) (5%) have been shown to achieve variable improvements in melasma. Triple combination (TC) therapy still remains the gold standard of care based on efficacy and patient tolerability. Evidence has shown ascorbic acid, azelaic acid, glycolic acid, kojic acid, salicylic acid, and niacinamide to be effective as adjuvant therapies with minimal side effects. Tranexamic acid (TA) and cysteamine have become recent agents of interest due to their good tolerability, however more trials and studies are warranted

Polyaphron Dispersion (PAD) technology presents a new, more cosmetically appealing vehicle that allows for both topical steroids and vitamin D analogs to coexist in an aqueous environment, such as a cream formulation. The calcipotriene/

betamethasone dipropionate (CAL/BDP) cream enhances drug delivery by reducing the greasy and oily side effects of anhydrous formulations. A significantly improved patient satisfaction were reported with the cream formulation. One of the newest topical combinations for mild-moderate psoriasis is the formula including Clobetasol propionate, salicyclic acid, tretinoin and urea GN-037; that will be marketed by Gen Medicine is likely to get approval. As Vitamin D derivatives (calcipotriol and tacalcitol in particular) seem to be more effective when the nail bed is affected, tacalcitol can be compounded in a clobetasol propionate 8% lacquer. Similarly, there is evidence in favor of treating onychomycosis with topical corticosteroids in high concentrations (e.g. clobetasol propionate 8%) in nail lacquers, as this vehicle facilitates optimal penetration through the nail.

Although suppression of the 5α-reductase-driven conversion of testosterone to dihydrotestosterone (DHT) is essential in controlling the stimulation of the hair loss, topical finasteride 0.05% does not seem to promote hair growth. Additional molecules used in combination with minoxidil in compounded formulas include finasteride, dutasteride, azelaic acid, progesterone (as a 5α-reductase inhibitor), tretinoin, latanoprost, clobetasol propionate, melatonin and others. Finasteride has shown synergism with minoxidil, resulting in significant increase in hair counts when combined with topical minoxidil, with maintenance of good hair density in combination with topical 5% minoxidil. Tretinoin is another valuable ingridient for these formulations because it enhances sulfotransferase activity. It is also known as a keratolytic and is believed to enhance minoxidil penetration.

For the treatment of ulcerated hemangiomas topical brimonidine 0.2%-timolol 0.5% cream (a combination of selective α-2-adrenergic agonist and non-selective β-blocker).has been shown to be a promising alternative reported in previous two cases having infantil hemangiomas.

A fixed dose of 980 mg topical gel containing 0.125% (w/w) digoxin and 0.125% (w/w) furosemide was applied to 12 healthy subjects with at least four common warts on their hands for 7 consecutive days as s new approach called Ionic Contra-Viral Therapy (ICVT). A rapid and statistically significant reduction in diameter, height and volume of the warts was already observed at day 14.

A new barrier spray containing zinc gluconate-taurine complex and zinc oxide combined with panthenol, glycerin and shea (Butyrospermun parkii) butter for the treatment of intertrigo in athletes and overweight subjects has shown perfect anti-irritan, anti-septic and anti-inflammatory effects which may represent a valid therapeutic option.

As a result. compounding topical medications in dermatology provides dermatologists with the ability to provide unique formulations to best suit their patients' individual needs. However, dermatologists must keep in mind the limitations of compounding topicals, including a lack of data on efficacy and safety.

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BIOLOGICS AND SMALL MOLECULES FOR HIDRADENITIS SUPPURATIVA

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Abstract:

Hidradenitis suppurativa (HS), also known as acne inversa, is a chronic inflammatory skin disorder characterised by the development of persistent or recurrent double-headed comedones, painful, firm papules and nodules, draining sinuses linking inflammatory lesions, and residual hypertrophic and atrophic scarring. (1)

In the early uncomplicated diseases, the first-line therapy are antibiotics. (2) Nowadays, the most effective pharmacological treatment in patients with a moderate-to-severe course of the disease is the biologic therapy. (3)

Aim of Presentation: To give an update presentation referring new biologics and small molecules treatment options for HS.

Results: Currently, the only FDA and EMA-approved biologic therapy for moderate to severe HS is Adalimumab.

There are also promising biologics in phase III trials such as: anti-IL-17 antibodies, secukinumab, and bimekizumab. Bermekimab, an anti-IL-1 biologic, is currently in phase II trials, and shows encouraging results. (4)

Conclusion: New area of treating HS is present. New biologics and small molecules are the future trends during these last years.

Keywords: Hidradenitis suppurativa, biologics, TNF-α inhibitors, IL-17 inhibitors, IL-1 inhibitor.

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COSMETIC PROCEDURES FOR HAIR LOSS

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Hair, as a remarkable indicator, illustrates the interdisciplinary nature of dermatology. It can mirror metabolic disorders, substance abuse, internal diseases, and environmental damage and can even serve as a marker for genetic conditions. Furthermore, as a symbol of beauty, its loss can lead to various medical, social, and psychological challenges.

Alopecia, or hair loss, is a prevalent issue that both men and women deal with in therapeutic settings and is frequently a significant cause of distress. Many causes of alopecia have been identified, including congenital, telogen effluvium (TE), patterned hair loss, drug-induced hair loss, hair shaft abnormalities, and nonscarring alopecia. As such, the doctor must diagnose alopecia using a systematic strategy that includes a history taking, clinical examination, laboratory evaluation, and specialized tests. Hair loss is not life-threatening but distressing and significantly affects the patient's quality of life.

A successful regimen for treating hair loss focuses on the condition's underlying cause. This means that depending on the type of hair loss a person suffers and the internal and environmental reasons causing the issue, procedures and treatment options will differ significantly from person to person.

In addition to adequate hair care products and drugs used in therapy, depending on the type of alopecia, a significant place in therapeutic algorithms is also occupied by cosmetic procedures that promote its growth.

Cosmetic procedures for hair loss typically fall into two categories: surgical and non-surgical.

Surgical options include hair transplant procedures, such as follicular unit transplantation (FUT) and follicular unit extraction (FUE). These procedures involve moving hair follicles from a donor area to the balding or thinning areas.

Non-surgical options include platelet-rich plasma (PRP) therapy, which involves injecting a concentration of a patient's platelets to stimulate hair growth, as well as low-level laser therapy (LLLT) and mesotherapy/microneedling. These non-surgical treatments are designed to promote hair growth and improve the quality of existing hair.

Using the platelet-rich plasma (PRP) procedure, an autologous platelet preparation is injected intradermally into the scalp, and concentrated plasma containing growth factors, such as platelet-derived growth. insulin-like growth factor-1 (IGF-1), vascular endothelial growth factor (VEGF), transforming growth factor-beta (TGF-β), epidermal growth factor (EGF), and platelet-derived growth factor (PDGF). (1)This procedure offers anti-inflammatory and regenerative properties through angiogenesis, cell differentiation, and proliferation. Lack of uniformity in PRP preparation techniques, non-uniform clinical endpoints, and frequent combination treatments are significant obstacles to understanding PRP research. The dosage, number of sessions and their intervals, and injection techniques directly affect how well the method works. However, PRP is relatively noninvasive, has a good safety record, and frequently results in high patient satisfaction. (2). PRP not only reduces hair loss but also has a positive effect on hair regrowth (3).

Mesotherapy, or local intradermal therapy, is a minimally invasive method that involves the injection of therapeutic agents, such as drugs and bioactive substances, into the skin at a depth of 2–4 mm (4). One of the main benefits of mesotherapy is that it allows for a tailored approach to treatment because the therapeutic material is injected directly into the skin, avoiding the obstacles that topical medications encounter (5). Therefore, in addition to the agent's direct presence in the targeted area, the agent's bioavailability can be enhanced by a prolonged residence at the injected site. Research indicates that mesotherapy, which involves applying lower doses of approved and newly developed medicines directly to the scalp, could be an efficient treatment for hair loss (6).

Low-level laser therapy (LLLT) induces proliferation, migration, oxygenation, and adhesion and the transition from telogen to anagen. There are several hypotheses about the effect of low-level lasers, and several devices on the market emitting specific wavelengths. This type of therapy is a good choice for patients who want to avoid pharmacological treatment (7).

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EPILATION&STD

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What does epilation mean? Epilation means removing the unwanted hair from the skin. And some instruments are used for this purpose. Here are some of them mostly used:

- Nonelectric blade
- Electric razor
- Wax
- Scissors
- Electrolysis and/or laser removal

In a cross-sectional study; 5674 adults who reported pubic hair grooming were included. Grooming-related injury was reported by 1430 adults (25.6%)[1]. The degree of grooming was an independent risk factor for injury in this study.

Any injury in genital region would cause to be caught a sexually transmitted infection (STI). And any epilation method could cause some injury, mentioned just above. So epilation may cause to be caught STI. For this reason, some studies have been performed whether epilation in genital area increase the risk of catching any STI, or not.

In another survey conducted in US (2017), 7580 adults were included (18-65yo)[2]. They defined 'extreme grooming' as removal of all pubic hair more than 11 times per year and 'high-frequency grooming' as daily/weekly trimming. Cutaneous (herpes, human papillomavirus, syphilis and molluscum) and secretoy (gonorrhoea, chlamydia and HIV) STIs were investigated. They analysed 'lice' separately. 66% of men and 84% of women were reported that they are grooming their pubic hair. (average,74%). Ever having groomed was positively associated with a history of self-reported STIs (including cutaneous STIs, secretory STIs and lice). While these positive associations were stronger for extreme groomers *(removing all pubic hair more than 11 times per year*) and high-frequency groomers (*daily/weekly trimmers*) with cutaneous STIs, it was stronger for non-extreme groomers and low-frequency groomers with lice.

In another study conducted in US again (2020), 314 adults (27-39yo, men 79%, women 19%, transgender 2%) were included.[3]The median number of sexual partners within the past 3 months was 4 (2–7). Seventy-eight (25%) patients were diagnosed with a new STI during their visit. In summary for this study, they found no association between recent grooming and genital STIs. Anal grooming was associated with rectal STIs in gay and bisexual men. But there were some notable limitations of this study: The study group is a convenience sample of one public health clinic, and the results may not be generalizable. And, participants who refused to participate may be different from patients included in this study.

In some other studies conducted between 2007-2014, the authors concluded that pubic hair removal (shaving or waxing) may cause abnormalities of the epidermis that allows the penetration and dissemination of the agents that leads to STIs such as molluscum contagiosum or HPV[4-10]. Therefore epilation could be a risk factor for STIs.

In conclusion, it is possible that any epilation procedure on the pubis causes abnormalities of the epidermis that allows the penetration and dissemination of the infections. Therefore, on the basis of the studies, female/male pubic hair removal, especially by waxing or shaving, is a practice that could facilitate the local dissemination of STIs.

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BIOLOGICS AND SMALL MOLECULE TREATMENTS IN SCALP AND NAIL PSORIASIS

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In this lecture summary, the short- and long-term efficacy of biologics and small molecules in scalp and nail psoriasis were discussed through the results of meta-analyses, randomized controlled trials (RCTs), and observational studies.

Scalp psoriasis (SP) occurs in 80% of patients with psoriasis and causes negative effects on quality of life. Visibility of the lesions as well as physical symptoms such as itching and bothersome scaling cause psychosocial impacts and feelings of stigmatization. Scalp psoriasis is one of the "difficult-to-treat" areas of psoriasis. Treatment is challenging particularly due to low patient adherence and acceptance of topical agents. More effective and well-tolerated treatments are warranted in patients who cannot achieve adequate control with topical agents.

Biologics and small molecules have revolutionized the treatment of psoriasis. Treatment of SP with biologics and small molecules does not differ from treating cutaneous psoriasis. Efficacy and safety data for these agents usually come from subset analyses of RCTs and real-world studies. 1

The pathogenesis of scalp psoriasis includes more active interleukin (IL)-17-associated genes, elevated IL-23 gene transcription levels, increased expression of Janus kinase (JAK) signal transducer and activation of transcription (STAT) pathway, increased levels of TNF-a, and upregulated cyclic adenosine monophosphate (cAMP) via (phosphodiesterase-4) PDE-4. Therefore biologics and small molecules inhibiting these pathways show effectiveness.

TNF-a inhibitors are successfully used in the treatment of scalp psoriasis. Etanercept is a fusion protein that inhibits TNF-a. In an RCT that included 124 adult patients with plaque psoriasis and significant scalp symptoms, the mean PSSI improvement was 86.8% ± 18% in the etanercept group and 20.4% ± 39.3% in the placebo group at week 12 ($p < 0.0001$). At week 24, 90.6% ± 13.1% mean PSSI improvement was achieved in the etanercept group. Infliximab is a mouse/human chimeric antibody that specifically binds TNF-a. A retrospective and comparative study evaluated the treatment outcomes of 35 patients on infliximab therapy. At week 4, 74% of the patients achieved PSSI75 and 70% of them maintained the same response at week 48. 1 Adalimumab is the first fully human monoclonal antibody that inhibits TNF-a. Post-hoc analysis of the BELIEVE study enrolled 730 patients and 663 (91.3%) of them had SP. Patients with SP exhibited a median 77.2 ± 96.9% decrease from baseline PSSI at week 16. 2

Ustekinumab is a fully human monoclonal antibody that directly inhibits IL-12 and IL-23 by binding their shared p40 subunit. A retrospective, comparative study of 145 patients has compared 4 biologics (infliximab, etanercept, adalimumab, and ustekinumab) in the treatment of scalp psoriasis symptoms. At week 4, the 41-ustekinumab patients achieved a 62% mean decrease in the PSSI, whereas the decrease in the PSSI score at week 48 was 94.9%. 1

Tildrakizumab, guselkumab, and risankizumab inhibits the p19 subunit of IL-23. Very recent phase 3b RCT evaluated the efficacy and safety of tildrakizumab for the treatment of moderate-to-severe SP. 60.7% of patients achieved PSSI 90 response at week 16. In the post-hoc analysis of the VOYAGE 2 Phase III RCT, scalp response to guselkumab over 5 years has been evaluated. Guselkumab showed marked improvements in SP and these improvements were maintained through week 252.1 The long-term efficacy of risankizumab on scalp involvement was evaluated through 256 weeks of continuous treatment in the phase 3 LIMMitless study. Among patients with scalp PsO at baseline (N = 477), mean improvement from baseline in PSSI was >94% at week 256, and >73% of patients achieved complete clearance. 4

Ixekizumab and secukinumab neutralize interleukin (IL)-17A, while bimekizumab selectively inhibits IL-17F in addition to IL-17A. In the pooled analysis of UNCOVER-1,2 and 3, 89.9%, 81.7%, and 74.6% of patients on ixekizumab achieved PSSI 75, 90, or 100, respectively at 12 weeks. In a double-blind, phase 3b study, the efficacy of secukinumab in moderate to severe SP was evaluated. 52.9% and 35.3% of the patients using secukinumab achieved PSSI 90 and 100 at week 12. At week 24, PSSI 90 and 100 responses increased to 58.8% and 47.1% of secukinumab-treated patients, respectively.1 In a post-hoc analysis from the BE VIVID phase 3 trial among patients with baseline scalp investigator global assessment (IGA) ≥3 treated with bimekizumab, scalp response was rapid, with a higher proportion of patients achieving scalp IGA 0 at Week 16, compared with ustekinumab or placebo (75.7% vs. 58.8% vs. 8.1%, respectively). Brodalumab is a human anti-interleukin-17 receptor monoclonal antibody.5 In the AMAGINE-1 study, patients 64.8%, and 89.0% of patients who received either brodalumab (140 or 210 mg Q2W) showed PSSI 75 response; 52.4% and 76.8% showed PSSI 90 response; and 3.2%, 41.0%, and 63.4% showed PSSI 100 response at week 12, respectively.1

Apremilast and deucravacitinib are small molecules that are effective for scalp psoriasis. Apremilast is an oral small molecule that targets phosphodiesterase 4 (PDE4). Roflumilast is a selective PDE-4 inhibitor being investigated in cream and foam formulations. Deucravacitinib is an oral TYK2 inhibitor that inhibits the JAK/STAT pathway. In a subset analysis of two phase 3 randomized trials, at week 16, response rates were found greater with deucravacitinib versus placebo or apremilast for 90% improvement from baseline in PSSI (50.6% vs 10.5% vs 26.1%; P <0.0001). In a very recent meta-analysis, their efficacy for scalp psoriasis utilizing data from randomized controlled trials was assessed. Both apremilast and deucravacitinib were more effective in inducing scalp PGA of 0/1 at 16 weeks compared to placebo. Furthermore, deucravacitinib was more effective than apremilast. 6 Roflumilast foam 0.3% was evaluated in a phase II trial in patients with scalp and body psoriasis. At week 8, a greater percentage of roflumilast-treated patients (59.1%) than vehicle-treated patients (11.4%) achieved IGA success.

In a recent meta-analysis including 16 studies with 6734 patients, all treatments showed a superior response rate compared with placebo. Guselkumab was ranked highest among all included treatments, followed by bimekizumab and secukinumab in the ranking analysis on week 12/16. 7

Nail psoriasis (NP) affects up to half of patients with psoriasis and can be seen in 5–10% of cases without cutaneous symptoms. The structure of the nail structure makes the treatment challenging due to poor penetration of topical treatments to the nail matrix and the nail bed. Furthermore, the presence of NP is highly associated with psoriatic arthritis (PsA). Therefore systemic therapies should be considered for NP when more than three nails are involved, there is severe skin involvement, associated PSA, and/or low quality of life. 8

All biologics and small molecules explained above show effectiveness in the treatment of NP with variable outcomes. As in SP, there are very few RCTs evaluating the efficacy of these agents on NP.

An updated systematic review has assessed the efficacy and safety of targeted therapies for NP. A total of 68 studies on 15 nail psoriasis targeted therapeutic agents which are TNF-alpha inhibitors (adalimumab, infliximab, etanercept, certolizumab, golimumab), IL-17 inhibitors (ixekizumab, brodalumab, secukinumab), IL-12/23 inhibitors (ustekinumab), IL-23 inhibitors (guselkumab, risankizumab, tildrakizumab), PDE-4 inhibitors (apremilast), and JAK inhibitors (tofacitinib). These agents all demonstrated statistically significant improvements in nail treatment response outcomes. Brodalumab, risankizumab, and tildrakizumab were highlighted in this systematic review as promising agents. 8

Another meta-analysis comparing the efficacy of eight biologic treatments showed that ixekizumab had the highest probability of achieving complete resolution of NP at weeks 24–28 and at weeks 48–52. Another important result of this meta-analysis was that the probability of achieving complete resolution of NP was higher overall in long-term therapies. 9

The therapy choices in NP have increased with the approval of new biologics and small molecules such as brodalumab, risankizumab, tildrakizumab, bimekizumab, and deucravacitinib. In BE RADIANT and BE SURE trials of bimekizumab, complete nail clearance was achieved in 54.0% to 71.2% of patients at 1 year. In POETYK PSO-1 and PSO-2 RCTs of deucravacitinib, a higher percentage of patients achieved PGA-F scores of 0-1 (PGA-F0/1) at week 16 (20.5%), versus placebo (8.3%, P = .0272). At week 52, the response rate of PGA-F0/1 increased to 51.7% of continuous deucravacitinib-treated patients. 10

In conclusion, biologics and small molecules have proven efficacy in the treatment of SP and NP. However, most RCTs assessing SP and NP outcomes are subgroup or post-hoc analyses of patients with scalp and nail involvement among larger PsO/PsA populations. RCTs particularly focusing on SP and NP are needed for better evaluation of efficacy and safety results of biologic and small molecule inhibitors.

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NEW TREATMENT OPTIONS FOR ALOPECIA AREATA

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Alopecia areata is autoimmune disease characterised by nonscarring hair loss in patches. Although the main cause still remains unknown, it is hypothesized that the loss of immune privilege of the hair follicle is the major pathological event. The whole process is driven by cytotoxic T lymphocytes directed against the hair follicle in anagen phase of hair growth. After accidental discovery of treatment outcome of janus kinase inhibitor(JAK) in alopecia areata, the new wide research and treatment options where available. It is one of the most investigated dermatological diseases in the last 10 years. At the moment, two EMA-approved medications for alopecia areata are baricitinib (JAK 1/2 inhibitor) for adults and ritlecitinib (JAK 3/TEC inhibitor) for children aged 12 and older. Both are EMA-approved for patients with severe alopecia areata. There are still ongoing trials for other treatment options. Recently published paper finally defined all the treatment available with recommendations in prescribing.

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HISTOPATHOLOGICAL FINDINGS IN COMMON HAIR AND SEBACEOUS GLAND DISORDERS

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Histopathological examination plays a crucial role in diagnosing various hair and sebaceous gland disorders. Diagnosis often requires a combination of clinical examination, histopathological analysis, and sometimes additional tests such as microbial cultures or immunofluorescence studies.Here are some common findings associated with certain conditions:

1. Alopecia Areata:
- Histopathological findings typically include peribulbar lymphocytic infiltrate around anagen hair follicles.
- Catagen or telogen hair follicles may be present.
- Hair follicle miniaturization may occur in chronic cases.

2. Androgenetic Alopecia (Male and Female Pattern Baldness):
- Miniaturization of hair follicles, evidenced by decreased terminal hairs and increased vellus hairs.
- Presence of perifollicular fibrosis.
- Increased numbers of telogen hairs.

3. Seborrheic Dermatitis:
- Epidermal hyperplasia with parakeratosis.
- Presence of spongiform pustules in the epidermis.
- Superficial perivascular lymphocytic infiltrate.
- Increased number of Malassezia yeast organisms.

4. Acne Vulgaris:
- Comedones (open and closed) with or without inflammation.
- Presence of inflammatory cells, such as neutrophils and mononuclear cells, in the dermis around the pilosebaceous unit.
- Dilation of sebaceous glands.

5. Rosacea:
- Dilated blood vessels in the dermis.
- Perifollicular and perivascular lymphocytic infiltrate.
- Presence of Demodex mites.
- Sebaceous gland hyperplasia.

6. Hidradenitis Suppurativa:
- Abscess formation in the dermis.
- Sinus tracts lined by squamous epithelium.
- Mixed inflammatory infiltrate containing neutrophils and lymphocytes.

7. Sebaceous Hyperplasia:
- Enlarged sebaceous glands with central ductal dilation.
- Presence of sebaceous lobules with a central duct.

8. Folliculitis:
- Inflammation of hair follicles.
- Presence of pustules or papules around hair follicles.
- May involve bacterial or fungal organisms depending on the cause.

9. Trichotillomania:
- Fractured or broken hairs at variable lengths.
- Absence of inflammatory infiltrate if the pulling is chronic.
- Presence of perifollicular hemorrhage.

10. Tinea Capitis (Fungal Infection of the Scalp):
- Hyphae invasion into the hair shaft (endothrix or ectothrix pattern).
- Perifollicular inflammation.
- Hair shaft destruction.

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MASS DRUG ADMINISTRATION IN DERMATOLOGY : DOES IT WORK ?

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Mass drug administration (MDA) involves giving treatment to the entire population or every person in a specific area. This means that all eligible people will receive the treatment, whether they are sick or not. Actually , targeted diseases are almost always infections.

Mass drug administration is vital to help control and eliminate a number of infectious diseases.

They ensure that those who are infected are treated and those who are not are protected from future infections.

World Health Organisation has been recommending mass drug administrations to control or eliminate several infectious diseases, mostly neglected tropical ones. More than 700 million people now receive these essential medicines annually for this purpose (1).

Variations of MDA includes targeted mass drug administration or intermittent preventive treatment .

In targeted MDA , a smaller high-risk area, such as a house, village, or hot spot is aimed to treat, however intermittent preventive treatment involves specific populations such as pregnants or school children (2).

Scabies, pediculosis, helminthiasis, filariasis, strongyloidosis,malaria, tuberculosis, ,trachoma and HIV infections and infestations are main diseases for which mass drug administrations are made (3).

Scabies is one of the infectious diseases for which MDA is most necessary..

Moreover, considering cutaneous findings of other infectious diseases that require MDA, listed above, MDA is of great importance in dermatology.

MDA with oral ivermectin and topical permethrin has been shown to significantly reduce scabies and related secondary bacterial infections in a population of more than 26 000 people (4).

A meta-analysis study published in September 2022 showed that MDA with oral ivermectin and topical permethrin reduced the prevalence of scabies by 79% and the prevalence of secondary impetigo by 66%.(5).

In communities where scabies prevalence is greater than 10%, mass drug administrations (MDAs) are recommended (6). According to the verbal statement of the Ministry of Health in Turkey (there is no prevalence study yet), the prevalence of scabies is around 2%.

MDA with ivermectin was an effective and safe means of reducing the prevalence of most of the parasitic diseases including scabies, pediculosis, cutaneous larva migrans and tungiasis. (7).

Helminthiasis, filariasis, strongyloidosis, malaria, tuberculosis, trachoma and HIV infections are diseases that show serious skin symptoms during their course. Treatment of all susceptible individuals with MDA will also treat the potential skin problems of these infectious diseases.

Nowadays, the whole world is facing almost a scabies pandemic .

Scabies has become a global public health problem affecting the whole world with immigrant movements and several other factors in the last decade (8, 9)

In some communities, the scale of the epidemic is much more serious.

Since there has been no acquired immunity to prevent re-infection against scabies, mass drug administration is much more important.

Individuals should be alerted to the symptoms of scabies through the media and health authorities, and suspected cases and all individuals in contact should be subject to the mass drug administration.

For this purpose, committees should be formed and appropriate treatment options should be determined for every individual, necessary quarantine measures should be taken and the results should be monitored.

Thus, we can answer the question in the title of this presentation.

Mass drug administration in dermatology: Does it work? Yes. It works .

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VIRAL INFECTIONS AND DRUG HYPERSENSITIVITY: IS THERE ANY REAL CONNECTION?

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The clinical manifestation of the interaction between viral infections and drug reactions has been known for many years, however an increase in its incidence is observed today. The pathogenesis of this interaction is not yet clear due to the diversity of viruses, the number of causative drugs, and the diversity of clinical findings.

Viral infections and T-cell-mediated drug hypersensitivity reactions (DHR) may affect each other. In most cases, systemic virus infections occur first. Adaptive immune system (IgE, T cells), drug-reactive T cells and antibodies have been identified in a significant portion of drug hypersensitivity reactions. Regarding T cell stimulations, two dominant mechanisms have been detailed: hapten and p-i concepts.

Viruses can initiate reactions to drugs in two ways. First, with the second signals caused by the virus: some drugs, such as β-lactam antibiotics, are haptens and covalently bind to various soluble and tissue proteins, thereby forming new antigens. Under homeostatic conditions these neo-antigens do not cause an immune reaction, probably due to lack of co-stimulation. During a virus infection, hapten-modified peptides are presented in an immunostimulatory environment with co-stimulation. A drug-specific immune reaction may develop and present as exanthema. Secondly, through increased pharmacological interactions with immune receptors (p-i): drugs tend to bind to proteins. Without viral infections, this low affine binding may be insufficient to elicit T cell activation. During a viral infection, immune receptors are more expressed, allowing more interactions to occur.

Many factors influence the clinical manifestation of DH in the context of viral infections. These can be virus-, drug-, and/or patient-related. Among the virus-related factors are the type and strain of the virus and the length of infection.The drug itself, the dose, its ability to act as a hapten, the patient's underlying condition, antiviral/antidrug immune response, genetic predisposition, and potential state of immunosuppression also contribute in this setting. It is challenging but important for a better understanding of DHR in viral infections to dissect the respective contribution of these virus-, drug- and/or patient-related factors.

In summary; DHRs during viral infections are driven by co-stimulation of T cells or simply by increased expression of TCR/HLA on T cells. This pathogenesis explains the transient nature and low reproducibility of most drug-induced rashes that initially occur in the context of (transient) virus infections.

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TREATMENT OF MOLLUSCUM CONTAGIOSUM: IS IT EASY?

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Molluscum contagiosum is a benign, viral dermatosis, caused by a DNA virus of the molluscipoxvirus genus and poxviridae family, and accounts for about 1% of all skin diseases in the world.

It is characterized by small, discrete, waxy, hemispherical skin-colored papules, averaging 3–5 mm in diameter, with a central umbilicus from which gray-white contents can be squeezed out by pressure. The disease can develop at any age, but it mostly occurs in sexually active teenagers and adults, children aged 1 to 10 years, and immunocompromised patients.

Lesions can appear anywhere on the body. In children, lesions are often present on the face, trunk, extremities, and axillary area. Adults often have lesions in the anogenital area, abdomen, and inner thighs. Rarely, molluscum contagiosum causes lesions on the palms, soles, or mucous membranes. Lesions may be accompanied by pain, itching, erythema and secondary bacterial infection.

They are transmitted directly through skin-to-skin contact, shaving and combing, or indirectly through the use of infected personal care items, clothing, bath sponges and towels. There are other routes of transmission including swimming pools and pregnancy. It is one of the most common skin diseases worldwide, and in children aged 0-16 years it is the third most common viral skin infection.

Molluscum contagiosum is usually diagnosed by taking a medical history from the patient, clinical examination and more recently dermatoscopy. Molluscum contagiosum usually resolves spontaneously within 6 to 9 months, so treatment is not always necessary. Treatment is often considered to prevent autoinoculation, secondary bacterial infection, social discomfort, for cosmetic reasons, or to accelerate resolution of persistent lesions.

Currently, available therapeutic options include invasive methods such as: cryotherapy, curettage and laser therapy, oral medications such as cimetidine, as well as various, specific, topical skin treatments such as: Cantharidin, podophyllotoxin cream, salicylic acid, trichloroacetic acid, potassium hydroxide, silver nitrate, nitric oxide, tretinoin and imiquimod cream 5% and others.

Each alternative represents its own set of limitations, so when making a decision on the right choice of therapy, one should take into account the age of the patients, the number and place of occurrence of changes, their spread of adverse reactions, as well as the possibility of application by patients, parents, non-medical or medical workers.

Treatment of Molluscum contagiosum is neither easy nor quick, it requires time and a lot of patience. We hope that new scientific research studies will contribute to finding an adequate, fast and effective therapy with as few side effects as possible.

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EVIDENCE BASED TREATMENT OF (NON-SEGMENTAL) VITILIGO

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Introduction:

The treatment of vitiligo can be challenging and depends on several factors such as the subtype, disease activity, vitiligo extent, and treatment goals. Vitiligo usually requires a long-term approach and benefit must be weighed against (potential) side-effects.

A broad worldwide group of expert made an effort to give guidance on the diagnosis and treatment of vitiligo(1,2). There have been many interventional studies published, but unfortunately relatively few of them are done in a way now considered as having highest standard of evidence based medicine. Moreover there has been much debate on several therapies more used in specific countries. Up-to-date agreed consensus recommendations on the use of topical and systemic therapies to facilitate the clinical management of vitiligo are currently lacking. New therapies are being developed as (systemic and topical) Jakkinase inhibitors, but their role in future management of vitiligo patients is still unclear.

Objectives:

To reach an international consensus on the nomenclature and to develop a management algorithm for the diagnosis, assessment, and treatment of vitiligo.

Methods:

In this consensus statement, a consortium of 42 international vitiligo experts and four patient representatives participated in online and live meetings to develop a consensus management strategy for vitiligo.

Results:

Treatment algorithms will be presented that highlight the importance of shared decision-making. Dermatologists are encouraged to provide patients with detailed explanations of the prognosis and expected therapeutic outcomes based on clinical examination the treatment goal should be discussed and clearly emphasized to patients given the different approaches for disease stabilization and repigmentation. The evaluation of disease activity remains a cornerstone in the tailor-made approach to vitiligo patients.

Conclusions:

These new treatment algorithms are intended to guide clinical decision- making in clinical practice. Promising novel therapies for vitiligo are on the horizon, further highlighting the need for reliable outcome measurement instruments and greater emphasis on shared decision-making. Vitiligo is still a disease with many unmet needs despite the recent developments.

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RESEARCH PROGRESS IN ATOPIC MARCH

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The incidence of allergic diseases continues to rise day by day. Cross-sectional and longitudinal studies have indicated that allergic diseases occur in a time-based order: from atopic dermatitis and food allergy in infancy to gradual development into allergic asthma and allergic rhinitis in childhood. This phenomenon is defined as the “atopic march”. Some scholars have suggested that the atopic march does not progress completely in a temporal pattern with genetic and environmental factors. Also, the mechanisms underlying the atopic march are incompletely understood. By the way, some studies have shown that the atopic march does not progress completely in a temporal pattern with genes and the environment . Therefore, the concept of the atopic march provides a new perspective for the mechanistic research, prediction, prevention, and treatment of allergic diseases (1).

In recent decades, the incidence of allergic diseases has continued to increase, affecting ~20% of the worldwide population, especially children (3). Cross-sectional and longitudinal studies have suggested that allergic diseases occur following a time-based order: from atopic dermatitis (AD) and food allergy in infancy to gradual development into allergic asthma (AA) and allergic rhinitis (AR) in childhood. In terms of anatomic structure, it follows the spatial evolution of skin–gastrointestinal tract–respiratory tract, and this phenomenon is defined as the “atopic march” (2).

AD is the initial manifestation of the atopic march and a chronic recurrent skin disease. Its clinical manifestations are chronic inflammation of the skin, itching, and an impaired skin barrier. AD affects 3% of adults and ~30% of children, and its prevalence tends to increase with age. AD occurs in the early years of life. Some epidemiology studies have shown that 45% of affected children had the condition before 6 months of age, 60% before 1 year of age, and up to 85% before 5 years of age. AD etiology is a combination of various factors involving genes and the environment. Once external allergens contact a damaged skin barrier, keratinocytes are stimulated to secrete thymic stromal lymphopoietin (TSLP) and other factors in conjunction with langerhans cells (LCs) to stimulate T-helper type 2 (Th2) immune responses. Then, the body is stimulated to produce non-specific immunoglobulin IgE (if children are exposed to allergens such as mites for a long time, specific IgE may appear). Subsequently, T cells, eosinophils, macrophages, mast cells, and type 2 innate lymphoid cells (ILC2s) infiltrate to secrete cytokines, resulting in local inflammation of the skin. AD patients can be classified into two types based on whether the IgE level is increased: intrinsic (normal IgE and non-allergic) and extrinsic (high IgE level associated with increased disease severity). Studies have shown that extrinsic AD increases the risk of developing the atopic march (3).

AA, one of the members of the end of the atopic march is a common chronic airway disease characterized by the inflammation, hyperresponsiveness, and remodeling of airways. With modernization and industrialization, AA incidence has increased year by year. This may be because of lifestyle alterations, changes in environmental factors (e.g., increase in indoor dust mites and outdoor pollution), changes in dietary habits, and many other factors. AR involves inflammation of the nasal mucosa and diminishes the quality of life of sufferers. Epidemiologic evidence has revealed a link between AA and AR. Accordingly, while the incidence of AR is higher in patients suffered AA than in those without AA, the incidence of AR is also increased in AA patients (4).

As for the relationship between AD and AA or AR, when retrospective and prospective cohort studies in the literature are examined, it has been identified that the incidence of AA and AR increases significantly in babies with AD, especially in the first 2 years of age. In this respect, it has caused a higher risk of developing AD, AA and AR, especially early-onset, persistent and IgE-positive AD. Also, IgE-positive food allergy commonly coexists with AD in early childhood as the earliest manifestation of the atopic march. Moreover, particularly severe and multiple food allergies are associated with AA in children ≥6. Children sensitized to milk in infancy exhibited increased airway responsiveness to histamine later in life. In conclusion, food allergy in infants is frequently associated with AD. Therefore, it is worth exploring whether the link between food allergy and AA or AR is related to AD or is a direct consequence of the food allergy itself (5).

In addition, recent studies suggest that Eosinophilic Esophagitis (EoE), which has been suggested to share the same pathogenetic mechanisms with AD (such as STAT6 and TSLP polymorphism) and whose incidence is increasing in AR, AA and AD, has the potential to be the fifth member of the atopic march (6).

Dysfunction of the skin barrier, filaggrin gene mutation, Thymic Stromal Lymphopoietin (TSLP) polymorphism, high expression of IL-33 and IL-25, increase allergen sensitization through "transcutaneous sensitization" and various mechanisms and are involved in the pathogenesis of atopic march members, primarily AD, food allergy, AA and AR.

Another important theory in the pathogenesis of the disease is dysbiosis and microbiome alteration. An example of dysbiosis of the skin microbiome is the colonisation of commensal staphylococci in the first 2 months of life, which is associated with a lower risk of AD at 1 year of age, whereas reduced diversity of the gut microbiome is associated with a higher risk of developing AD and AA. Metabolites of microbes also play a role in disease. Related to this, short-chain fatty acids produced by various gut microorganisms have been reported to improve colitis and allergic responses by triggering the proliferation of colonic regulatory T cells (Tregs). It is likely that microbiome alteration may be involved in atopic gait, but further studies are needed to determine whether changes in the microbiome are the cause or consequence of atopic progression (7).

When epigenetic studies are analysed, DNA methylation is associated with food allergy and AA. Especially in childhood, differential methylation profiles in peripheral blood are associated with food allergens, environmental/respiratory allergens and atopic sensitisation. In addition, some methylated regions of cord blood, which have been identified in relation to allergic diseases, have also been detected in middle childhood. There is a correlation between epigenetics and atopic gait, but whether epigenetic change is a cause or consequence of atopic gait requires large and detailed longitudinal studies (8).

Allergic reactions occur not only in areas of direct contact with allergens, but also in remote, non-contact areas. This may be a systemic reaction of the body and the mechanisms are not fully understood. In this regard, it has been suggested that the main factor triggering allergy is atopic factors produced locally from epidermal keratinocytes, and that some allergens are irritants that trigger the release of atopic factors at different sites, suggesting a model of "social events" of cells and molecules.

Additionally, seven susceptible sites associated with atopic march are FLG [1q21.3], AP5B1/OVOL1 [11q13.1], IL4/KIF3A [5q31.1], IKZF3 [17q21], C11orf30/LRRC329, EFHC1 [6p12.3], rs99322 [12q21.3] and revealed that it contains 16 common pathogenic genes: IL4, IL5, TSLP, RNASE3, IL13, IL10, IGHG4, IFNG, CCL11, FCER2, RNASE2, FOXP3, KCNE4, CD4, IL4R, and CCL26.

In summary, there is a multifactorial etiology of the atopic course, including skin barrier damage, microbiome alteration, and epigenetic factors. Additionally, "social" dysfunction of cells and molecules and interference of other genes may also contribute to atopy. However, further studies are needed to detail the relevant mechanisms.

In experimental animal models, mice treated with Calcipotriol and OVA and epicutaneous sensitization subsequently exhibited AA-like symptoms when intranasally challenged with OVA. This indicates that the skin is the initial site of sensitivity, consistent with AD being the first sign of atopic march.

On the other hand, the fact that "yes" or "no" question-based questionnaires are often used to diagnose members of the atopic march, that disease heterogeneity is not taken into account, that atopic march differs according to some countries, and that, in a sense, "atopic march" concept, future goals should be to improve data collection and survey systems, and to reconsider studies on an individual patient basis.

Preventive strategies for Atopic March include breastfeeding for the first 6 months, use of partial whey hydrolysate (pHF-W) when breastfeeding is not possible, and use of probiotics such as Lactobacillus rhamnosus during the first 2 years of life. These preventions help to reduce the prevalence of AD, AA and AR. In addition, should stop tobacco by all parents is effective in reducing allergic sensitization of patients. It is still controversial whether having pets (cats and dogs) at home in the first year after birth reduces the risk of multiple allergies (9).

On the medical treatment side, antihistamines and glucocorticoids seem to be effective in decreasing pruritus and symptoms in patients with AD, AA, but relapse may occur in patients, especially when glucocorticoids are withdrawn. In addition, Allergen-Specific Immunotherapy (ASIT), also known as desensitization therapy, can alleviate allergic symptoms for a long time with well known mechanisms such as increasing IL-10 levels, stimulating the conversion of growth factor-β from Tregs, supporting the balance of Th1 cells/Th2 cells, blocking the IgE-mediated immune pathway by converting IgE to IgG. But lack of safety and potential side effects seem to limit ASIT applications today. Further research is needed for improvements related to ASIT.

Among targeted therapies, anti IgE Omalizumab in AA and anti IL-4 and IL-13 Dupilumab in AD have been approved by the FDA to be preferred in patients who do not respond to conventional therapies. Tezepelumab, a monoclonal antibody against TSLP, is also effective in inhaler-induced AA attacks. Although off-label use and adjunctive therapies are encouraging in many allergic diseases, long-term clinical trials are still needed for biologic agents (10).

Although there are no reliable biomarkers identified for the risk of developing Atopic March, in recent years, it has become increasingly important to look at protein, RNA and lipid signatures of infants before and after AD with multi-omic approaches, sequentially analyzing transcriptomics, proteomics, metabolomics and cell types of infant blood, to perform sequential immune profiling of the blood, including serology, cytokine profiles and the evolution of specific B and T cells, and investigating the microbiome in the skin and gut from birth.

As a result, the global increase in atopic diseases has significantly reduced quality of life. "Atopic March" theory facilitates our understanding of the pathophysiology of atopic diseases and also supports early detection, prevention and treatment of children at risk of allergic diseases. Improving data collection methods, taking into account the heterogeneity or variation of diseases when conducting epidemiologic studies, and investigating genetic and environmental factors in more depth will form the basis for future research on atopic march. This researches will pave the way for new approaches for the prevention and timely early treatment of clinical manifestations and ultimately reduce the burden of allergy.

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POST-SCABIETIC PRURITUS

Oktay Taşkapan

Why does a scabies patient still have itching after treatment ? Cutaneous irritation /irritant contact dermatitis mostly resulting from overtreatment is frequently seen. Allergic contact dermatitis against topical scabicides is very rare. Treatment failure including low compliance, resistance, relapse, delusions of parasitosis are other reasons. And finally, "post-scabietic" or "postscabetic" pruritus (PP) should be regarded.

"Post-scabetic pruritus" or "postscabetic syndrome" which continues for several weeks (or even months) is a common phenomenon possibly resulting from a prolonged antigenic hypersensitivity reaction after the proper and successful scabies treatment. Even if PP is frequently seen in scabies patients, there are very limited data in the literature on its exact nature. In the first study on PP in 2021, the authors showed that postscabetic itch can persist for several months (median of 52.5 days) longer than previosly reported regardless of scabies treatment regimen. It was hypothesized that age-related physiologic changes, such as immunosenescence and impaired epidermal barrier repair may contribute to postscabetic itch. However, the relationship between aging and postscabetic itch is not clear.

"S1 guidelines on the diagnosis and treatment of scabies" (JDDG-2016) proposes the term of "postscabetic eczema" resulting from irritant dermatitis caused by topical therapy or by xerosis (asteatotic eczema) for the persistence of pruritic lesions following proper and successful scabicidal treatment. In this position paper, it was suggested that perssistence of itching may be due to remaining immunogenic mite particles and feces – even after eradication of Sarcoptes in the skin.

Sarcoptes scabiei (SS), which is also an 'astigmatid' mite like house dust mites [HDM: Dermatophagoides pteronyssinus (Dp) and Dermatophagoides farinae (Df)], is a true human parasite, classified in the family of sarcoptoidea. HDMs and SS are related phylogenetically. They show striking physical and antigenic similarities. Cutaneous contact with scabies mite proteins (allergens) induces a systemic inflammatory reaction. The fact that 32–75% of patients with scabies without atopic dermatitis (AD) showed skin prick test (SPT) and/ or specific IgE positivity to Dp and Df antigens, clearly reveals the cross-reactivity between SS and HDM antigens. Similarly, it was suggested that specific T cells developed against SS antigens (during the incubation period and/or clinical course of scabies) might be cross-reactive with HDM antigens. A research letter on analysis of IgE binding patterns to HDM allergens in scabies endemic communities from Australia strongly suggest that the high rates of atopy documented in the remote Australian Aboriginal populations may actually reflect IgE antibodies to Der p 4 and 20 produced by sensitisation to scabies mites and not HDMs. In scabies patients, changes in immunological parameters including skin prick test (SPT), specific IgE and/or intradermal test (IDT), and atopy patch test (APT) reactivity to HDM, and an increase in total IgE and blood eosinophil count suggest that scabies might cause transient "atopy", or an 'AD-like' state. However, there is no study and/or data on relationship between HDM exposure and persistence of itching (postscabetic pruritus) in scabies patients after successful therapy.

Avoidance of scratching, wearing loose-fitting clothing, moisturizers, topical steroids, oral antihistamines and phototherapy will be effective in most cases of post-scabetic pruritus. The importance of atopy and/or atopic dermatitis, and the effectiveness of HDM elimination measures to alleviate itching remain unclear.

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TOPICAL STEROID ALLERGY

Ömer Kutlu

Corticosteroids, a class of anti-inflammatory and immunomodulatory drugs widely utilized in dermatological practices. Despite their therapeutic benefits, these drugs can act as allergens, causing both immediate and delayed hypersensitivity reactions, with allergic contact dermatitis (ACD) being the most prevalent manifestation.

Corticosteroid allergies are investigated through patch testing in specialized units. A certain standard battery includes certain corticosteroids as markers, though they are not ideal. In cases of positive markers, it's beneficial to apply a specific battery of corticosteroids and the patient-provided drugs to identify the allergy accurately. Immediate reactions, although rarer, can be severe and require careful confirmation of the sensitization profile to ensure the safe use of alternative corticosteroids, which may be crucial in treating several diseases.

The epidemiology of ACD due to corticosteroids varies by geography, with sensitization rates ranging from 0.2% to 5%, and common allergens differing across countries. In this regard, budesonide is one of the most frequent allergen especially in Spain. Factors influencing these variations include corticosteroid usage frequency, prescription habits, awareness of corticosteroid allergy, and diagnostic tests employed. Women and patients with chronic skin diseases are more susceptible to ACD from corticosteroids due to factors like altered skin barrier and proinflammatory nature of these drugs.

Corticosteroids' structural similarity often results in cross-reactions in terms of delayed hypersensitivity reaction, complicating sensitization studies. Various classifications based on chemical structure and cross-reactivity have been proposed to better understand and manage these allergies. However, there remains no consensus or ideal classification, leading to challenges in clinical practice.

In conclusion, corticosteroid allergies both immediate and delayed reactions pose significant challenges in dermatology, necessitating comprehensive testing to identify safe treatment options. The variability in allergens and the prevalence of sensitization across different regions underscore the need for personalized approaches in managing corticosteroid allergies, guided by a thorough understanding of the underlying mechanisms and classifications of these reactions.

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TRICLOSAN CONTACT HYPERSENSITIVITY

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Over the past few decades, triclosan has found widespread application as a microbial growth inhibitor on skin and various surfaces. This broad-spectrum antibacterial and antifungal compound is integrated into diverse products, including personal care items, textiles, bedding, toys, and sutures. However, recent years have witnessed a substantial increase in research highlighting potential adverse health effects associated with triclosan exposure. Evidence suggests it irritates the human respiratory tract, eyes, and skin. Furthermore, extensive use has led to triclosan's environmental persistence, prompting the Food and Drug Administration (FDA) to ban its inclusion in domestic products due to concerns regarding the development of antimicrobial resistance.

Triclosan is quickly broken down in the body into glucuronide and sulfate conjugates, which are quickly flushed out of the body through urine. Triclosan is not very harmful to people because it is quickly eliminated from the body. Still, contact dermatitis and skin irritation have been linked to its direct touch with the skin. Triclosan acts as a hapten, binding to proteins and eliciting a delayed, cell-mediated immune response (Type IV hypersensitivity). T-lymphocytes play a pivotal role, in orchestrating local inflammation. Genetic susceptibility may also contribute to an individual's risk of developing sensitization. Triclosan contact hypersensitivity typically presents as allergic contact dermatitis. Symptoms include; redness, itching, small blisters, skin scaling or dryness and potential for secondary infections. Few cases of allergic contact dermatitis induced by triclosan have been reported, and the majority involve eczema of the hands, or areas such as the face, axillae or feet that have had direct contact with the causative product. Also studies have shown immediate-type hypersensitivity reactions and airbone contact dermatitis have been reported.

Contact hypersensitivity to triclosan is a rare but known condition. It was first reported in 1975 that triclosan could cause contact dermatitis. Two patients, one who was allergic to a deodorant foot powder and the other to an underarm deodorant stick, were studied. Since then, it has been shown that other products with triclosan can cause contact allergic dermatitis. These include throwaway paper products, plastic gloves, toilet soaps, shampoos, Logamel® cream (3% triclosan/0.02% flumethasone pivalate), and commercial laundry products. However, despite the broad use of such products, the frequency of sensitization remains modest, at less than 1%. A retrospective review of 113,162 patients who underwent patch testing with a 2% pet. triclosan solution revealed a positive reaction in just 363 people (0.32%). However, it is noteworthy that 54% of these positive reactions were deemed clinically significant. Because triclosan is a drug that is used in large amounts and many jobs. In the US alone, up to 10 million pounds are made every year, and its use is still growing. A newly discovered mechanism for triclosan in IgE-mediated allergies has been recently elucidated. Two different studies discovered a correlation between higher amounts of triclosan in urine and individuals who had sensitivities to airborne allergens and food. The underlying mechanisms responsible for this result are still not well understood, although initial research suggests that this chemical may have an immunomodulatory impact on atopy. Atopy and contact hypersensitization are typically regarded as mutually exclusive. Triclosan is an uncommon cause of contact hypersensitivity and is believed to contribute to the development of allergies. Therefore, there may be a connection between triclosan hypersensitivity and atopy.

In conclusion, it is important for healthcare professionals to know about the safety problems with triclosan until more information is found about how well it treats skin infections. It should only be suggested for use when the possible benefits are greater than the possible risks, especially for children.

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CONNUBIAL CONTACT DERMATITIS AND OTHER DERMATOSES

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"Connubial or Consort allergic contact dermatitis" defines a peculiar dermatitis caused by sensitization towards substances used by people in close contact with the patient (1). Connubial allergic contact dermatitis can arise from a variety of direct or indirect contacts with others including sexual, occupational, or recreational settings. It is not necessary for the contact to be of a sexual nature (2,3). The diagnosis relies on the correct identification of the causative agent, which may not be straightforward because of an unclear association between the dermatitis and its source from another individual (2). First reports on connubial contact allergic dermatitis date back to 1975 when Wilkinson determined that allergic contact dermatitis or photodermatitis can be the consequence of home-based activities, marital contacts or drugs usage (3).

Patients were affected from infancy to old age, with a female predominance. A long duration of dermatitis precedes the diagnosis of connubial allergic contact dermatitis, probably due to the inherent difficulty of tracing the allergen source (median, 6 months). The most commonly affected body parts are the face, neck, arms, hands and genitals. The products most frequently inducing connubial allergic contact dermatitis were in descending order of frequency: medications, plants/botanicals, fragrances, products related to sexual activity, and hair dyes. Patch testing revealed a wide array of associated allergens.The most frequent product categories implicated in connubial contact dermatitis were medications (35.6%), plants/botanicals (11.7%), fragrances (8.7%), products related to sexual activity (eg, condoms and lubricants; 6.8%), and hair dyes (6.4%). Within the category of medications, the most common classes were corticosteroids (22.2%), neurologic/psychiatric drugs (18.2%), antiseptics/antimicrobials (12.1%), nonsteroidal anti-inflammatory drugs (10.2%), and antibiotics (8.2%). The most common drug formulations were topicals (30.3%), aerosols (23.2%), and pills/tablets/capsules (19.2%) (2).

Connubial allergic contact dermatitis affecting only or predominantly one side of the body was a common presentation, often because of direct or indirect contact while sharing a bed (4,5). A unilateral pattern may be an important clue in connubial contact dermatitis (6). Nearly one-third of the cases relating to partners involved sexual contact. In most of these cases (67.5%), the genitals were affected, but the dermatitis could become widespread. The responsible products included condoms, lubricants, topical medications, feminine hygiene sprays, and vaginal suppositories (2).

Connubial contact dermatitis diagnosis is set on the basis of history, complete clinical checkup, elimination and exposition testing, functional skin ability determination and immunologic analyses (3).

Contact dermatitis is frequently encountered in dermatologists' everyday clinic work. Clinical picture is polymorphic and of extremely different etiologies. Discovering the cause of the disease and eliminating it, if possible, is of greatest importance. In order to accomplish that, it is necessary to perform an entire and conscientious checkup of the patient (2). Connubial contact dermatitis is likely underrecognized, so inquiry about habits of close contacts is imperative when the relevant allergen source is initially unclear (6).

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NEW AND EMERGING TREATMENTS IN ATOPIC DERMATITIS

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Atopic dermatitis is a common, chronically recurrent inflammatory skin disease characterized by a complex etiopathogenesis and a variable clinical phenotype. The clinical presentation is heterogenous, and the disease is characterized by a recurrent dermatitis, intense itching and significant impact on the quality of life of the patient and their family. The diagnosis is based on the clinical presentation according to the standardized diagnostic criteria, while the assessment of disease severity of the disease is based on the standardized tools for disease severity assessment. Understanding the underlying pathophysiology and identifying reliable biomarkers are crucial for effective management and personalized treatment strategies

Treatment should be tailored to each patient profile, and the goal of the treatment is focused on decreasing symptoms and renewing damaged skin barrier, preventing the exacerbation of the disease and preventing or treating the complications and comorbidities, and decreasing the negative influence of the disease on the patient's quality of life. Due to progress in understanding the etiopathogenesis, treatment options have significantly expanded in the past years.

The basis of treatment for any patient with AD includes education of the patient and family members, regular use of emollients, recognition and avoidance of factors that aggravate dermatitis.

In mild forms of AD (SCORAD <25, EASI 1.1-7.0), in addition to daily skin care (emollients), local anti-inflammatory (mild topical corticosteroids and, if necessary (in case of secondary infection) antimicrobial therapy) is recommended in local therapy in periods of exacerbation of dermatitis Application of calcineurin inhibitors (tacrolimus ointment 0.03% or 0.1%, pimecrolimus cream 1%) is recommended for the treatment of dermatitis on the face, neck, folds and genital region.

For moderate forms of AD (SCORAD 25-50, EASI 7.1-21) in addition to daily skin care (emollients), reactive and proactive application of topical anti-inflammatory preparations (higher potency corticosteroids and calcineurin inhibitors) is advised. If local therapy is not sufficient, and/or relapses occur quickly after stopping its application, phototherapy (narrow-spectrum UVB therapy, exceptionally UVA1 therapy or PUVA therapy) is advised. If there is no improvement despite the application of local anti-inflammatory therapy and phototherapy, the introduction of systemic therapy is advised.

For severe forms of AD (SCORAD >50, EASI >21.1) in which there is no improvement with topical therapy and/or phototherapy, together with daily skin care (emollients) it is indicated to use systemic immunosuppressive treatment (cyclosporine or methotrexate or azathioprine or mycophenolate mofetil) in an average duration 1-8.5 months.

For moderate and severe forms of AD in which there is no improvement with local therapy and/or phototherapy, there is no improvement and/or systemic immunosuppressive therapy is contraindicated, biological therapy or therapy with JAK inhibitors is indicated.

Other therapies are specific immunotherapy, climatomarinotherapy, psychotherapeutic support.

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GAITA ANALYSES IN DERMATOLOGY

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Can gaita (faeces or stool) examinations help avoid unnecessary laboratory examinations or uncover the cause of treatment-resistant skin disease, or is stool solely a waste product that needs to be eliminated from the body? Furthermore, is it unnecessary for dermatologists to order stool tests? In reality, numerous clinical examples in the literature show that faeces tests may provide valuable information about different problems of the gastrointestinal (GI) system that contribute to certain skin disorders.

Stool tests often play a critical role in the diagnosis of digestive disorders.1 The fact that faecal tests are not the first diagnostic tool used in diagnosing skin diseases, does not mean that we ignore their contribution to managing some dermatological problems. Essentially, we, dermatologists know that faecal tests can give clues to elucidate the aetiology of skin disorders resulting from gastrointestinal tract pathologies such as IBD (Inflammatory bowel disease; Crohn's disease, ulcerative colitis), parasitic infections or malignancies. These tests can also provide significant insight regarding diseases that affect both the gastrointestinal tract and the skin, The common reasons, in general, to test stool include the following:

- Infections; bacteria, viruses, parasites
- Inflammation; mainly, Inflammatory bowel disease
- Digestive problems; Malabsorption, etc.
- The gastrointestinal tract bleeding
- The screening for bowel cancer
- Allergy.

The main dermatological conditions for which stool analysis is mentioned as being meaningful in the current literature are listed in Table 1.[2-9]

Table1. Dermatological conditions in which faecal analysis may be valuable.

- Chronic spontaneous urticaria
- Atopic Dermatitis
- Rosacea
- Psoriasis
- Acne
- Perianal dermatitis
- Alopecia areata
- Porphyrinopathies
- Genodermatoses common to both the GI tract and the skin
  - ✓ *Ehler Danlos Syndrome*
  - ✓ *Peutz-Jeger Syndrome*
  - ✓ *Hermansky-Pudlak syndrome*
  - ✓ *Blue Rubber Bleb Nevus Syndrome*
  - ✓ *Pseudoxanthoma elasticum*
- Cutaneous metastatic lesions (Bowel CA)
- GI tract bleeding caused by systemic therapy for skin disease; *steroid, methotrexate, NSAI drugs..*
- Cutaneous disorders associated with inflammatory bowel disease.
  - ✓ *Erythema nodosum*
  - ✓ *Sweet syndrome*
  - ✓ *Pyoderma gangrenosum,*
  - ✓ *Bowel bypass syndrome (Bowel-associated*
  - ✓ *dermatitis-arthritis syndrome)*
  - ✓ *Angular cheilitis*
  - ✓ *Oral aphthous ulcers*
  - ✓ *Perianal fissures, fistulas*
  - ✓ *Acne conglobate*
  - ✓ *Cutaneous polyarteritis nodosa*
  - ✓ *Necrotizing vasculitis*
  - ✓ *Epidermolysis bullosa acquisita*
- Dermatoses in which the skin and the GI system may be affected together.
  - ✓ *Dermatitis herpetiformis*
  - ✓ *Hidradenitis suppurativa*
  - ✓ *Henoch-Schoenlein purpura*
  - ✓ *Kaposi sarcoma*
  - ✓ *Systemic sclerosis (scleroderma)*

The stool is analysed through microscopic examination, or by chemical, immunologic, and microbiologic tests. There are many different types of stool test methods. [1,16-20]

- **Direct microscopic examination;** multiple samples should be collected and tested (Ova, cysts, or parasites).
- **Faecal culturing:** Microbiome' tests (Culturing gut bacteria), pathogenic bacteria.
- **Faecal pH**; faecal alkalinity is a major factor in the genesis *of* ***perianal dermatitis.***[16]
- **The faecal immunoassay tests**

* **Faecal antigen tests**; *H. pylori*, *C. difficile,* Rotavirus, Adenovirus, Giardia, Entamoeba, and other parasites' stool antigen tests: direct fluorescent antibody (DFA), enzyme immunoassay (EIA), and rapid, dipstick-like tests
* **Fecal occult blood test (FOBT);** FOBT includes two types of fecal occult blood tests:
  - Guaiac fecal occult blood test (GFOBT)
  - Immunochemical fecal occult blood test (Fecal immunochemical test; FIT or immunochemical FOBT).

  These are routine stool tests used for the initial screening of colorectal cancer and polyps.

  GFOBT uses a chemical indicator (Guaiac) that shows a colour change in the presence of blood.

  In contrast, FIT uses antibodies directed against human haemoglobin to detect blood in the stool.
* **Faecal biomarkers:** Lactoferrin, calprotectin, alpha-1 antitrypsin, elastase, pancreatic enzymes for the inflammatory bowel diseases. These are detected using by Enzyme immunoassay (EIA) methods.

• **Faecal PCR test:** to detect pathogens in the GI (*H. pylori, C. difficile*) in faecal samples through PCR.

• **Faecal genomic tests**

Previous studies have reported that cutaneous disorders occur in approximately 15% of IBD patients and 25% of extraintestinal manifestations occur before disease onset.[8,9] Meanwhile, diagnosing IBD at an early stage could be of great benefit to the patient.[10] Bacterial, viral, fungal or especially parasitic intestinal infections can cause chronic spontaneous urticaria (CSU), and it is accepted that the remission of CSU in a patient with gastrointestinal symptoms is only possible with the treatment of the infection.[11] A systematic review[12] showed that the prevalence of parasitic infections in CSU patients ranged from 0% to 75%. The most frequently reported internal parasites in numerous studies are Blastocystis hominis, Strongyloides stercoralis, Giardia spp., Entamoeba hystolitica, Enterobius vermicularis, Ascaris lumbricoides, helminths and Hookworms.[12]

Diagnosis of porphyrias may be difficult due to their clinical diversity. However, when suspected, diagnosis can be made by performing laboratory tests (porphyrin and its precursors in plasma, blood, urine, and faeces) and molecular genetics techniques, according to the clinical findings of the patients. In qualitative analysis, the red fluorescence of stool, added fluorescent substances, under Wood's lamp indicates the presence of porphyrins. Faecal porphyrin analysis is mainly used to confirm porphyria and distinguish between different types and can help guide the diagnosis. Analysis of faecal porphyrins can be performed by spectrophotometry, high-performance liquid chromatography or fluorimetry. [13,14]

In clinical practice, in cases in which antibiotic-induced diarrhoea is considered, appropriate intervention can be made by measuring the toxin A and/or toxin B of C. difficile in the stool.[15]

Calprotectin, a protein found within leucocytes, is released from mainly activated human neutrophils during active periods of inflammation. It is a more popular marker among other faecal biomarkers which are thought to be useful tools in detecting or monitoring intestinal inflammation. Faecal calprotectin (FCP) has been studied to detect organic gastrointestinal diseases and distinguish them from functional gut problems. In IBD, FCP is proposed for diagnosis, monitoring of disease activity, treatment guidance and prediction of disease relapse and postoperative recurrence. Although it is predominantly studied for IBD, there are also reports suggesting that it is elevated in other disorders associated with neutrophilic inflammation such as celiac disease, colorectal cancer, and gastrointestinal infections. However, it has also been emphasized that increases in faecal calprotectin levels are not specific to IBD and that normal faecal calprotectin levels do not exclude the possibility of IBD. It can only be assessed as a complementary method.[18-20]

The FIT has been suggested as another indicator of intestinal inflammation. Psoriasis is a well-known chronic inflammatory skin disease associated with systemic inflammatory conditions, including inflammatory bowel disease. A population-based study has shown that the risk of psoriasis was significantly increased in patients with positive FIT results compared to the FIT-negative population.[7]

Many studies have shown that the gut microbiota can induce systemic inflammation. It is accepted that an altered immune response resulting from dysbiosis in the gut microbiota plays a substantial role in the development of skin diseases, such as atopic dermatitis, psoriasis, acne vulgaris and rosacea. As intestinal microbial dysbiosis has an interesting field of lightening the underlying mechanisms of skin diseases and developing new microbiome-targeted therapeutic approaches, the stool sample has become the source of most bacterial flora analysis in clinical trials due to its repeatable and non-invasive nature, with its relatively easy access. Although stool is used as a proxy for the intestinal microbiota, it provides only a

partial view of the colon's microbial diversity. The gut microbiome can be analysed by culture, or in recent years, by the genomic analysis of microbial components without culture.[21]

As a result, it should not be overlooked that stool tests can provide dermatologists with very useful information in finding the exact causes of some skin diseases or comprehensively managing them.

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HEPATOTOXIC/NEPHROTOXIC/PANCYTOPENIC DRUGS IN DERMATOLOGY

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Dermatological practice involves the use of systemic drugs; some of them carrying boxed warnings of hepatotoxicity while others causing inadvertent or idiosyncratic liver damage. Drug-induced liver injury (DILI) is a common problem faced by dermatologists and refers to liver damage caused by medications, herbs, or other xenobiotics which can sometimes be fatal .Drug-induced liver injury (DILI) is a term used to describe the damage caused by drugs to liver cells with presentations ranging from asymptomatic liver enzyme elevations to acute liver failure (ALF). A plethora of common drugs used in dermatology such as methotrexate (MTX), dapsone, azathioprine, tumor necrosis factor alpha inhibitors, and oral antifungals are implicated in causing DILI, making it imperative for dermatologists to be aware of the intricacies of this condition.(1)

The clinical manifestations of DILI are heterogeneous mimicking acute and chronic liver diseases of various etiologies, ranging from asymptomatic biochemical alterations to ALF and chronic liver damage. Serum enzyme elevations without clinical symptoms constitute the most common pattern of direct DILI. Nonspecific symptoms such as fever, fatigue, nausea, vomiting, jaundice, dark urine, pruritus, and right upper quadrant pain may be present and have been associated with worse outcome. In severe cases, signs of hepatic failure such as ascites, coagulopathy, hyperammonemia, encephalopathy, or coma arise within days. Sinusoidal obstruction syndrome can present as hepatomegaly, abdominal pain, and weight gain, followed by jaundice, and may progress rapidly to hepatic failure. (1,2)

Dermatologists use a variety of systemic drugs, some of which can cause severe adverse reactions and even fatalities. Ivermectin, a well-tolerated drug, can cause severe neurological side effects, whereas metronidazole, in high cumulative doses, has been associated with convulsions and rarely with hepatotoxicity. Dapsone is associated with frequent hematologic side effects, such as methemoglobinemia, hemolysis, and anemia. Although hepatotoxicity is rare and usually mild and reversible with the new antifungal agents, severe cutaneous reactions (such as toxic epidermal necrolysis, Stevens-Johnson syndrome, and anaphylaxis) have been reported. Even a relatively safe drug such as acyclovir has been reported to be the cause of renal failure and neurotoxicity. Methotrexate can cause not only liver toxicity, but also myelosuppression and pancytopenia, which may be acute and life threatening. Nephrotoxicity is a well-recognized side effect of cyclosporine, whereas thrombotic thrombocytopenic purpura, which is associated with high morbidity and mortality, is less well known Azathioprine is a very useful drug but can have serious side effects like myelosuppression. Since no tests can accurately predict the risk of myelotoxicity, regular monitoring of complete blood count is very important. Dermatologists should be familiar with these and other severe adverse reactions of the most popular and most used systemic medications of our trade (3,4)

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GENTIAN VIOLET IN DERMATOLOGY

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Gentian violet is a substance used as a dye in laboratories.

The name is due to its colour — it is not made from gentian or violet flowers.

Gentian violet is also known as crystal violet.

It was first synthesized by the French chemist Charles Lauth in 1861.In 1884, Hans Gram's noticing of the irreversible fixation of Gentian Violet by Gram-positive bacteria formed the basis of the bacterial classification called Gram stain (1).

Gentian violet came into widely use in medicine after 1912, when Churcman discovered its effectiveness against gram-positive bacteria, thus benefiting from its broad antimicrobial spectrum.

Gentian violet has a number of properties including antibacterial, antifungal, antitypranosomal, antiviral and anti-angiogenic agent.

Gentian violet is generally used as topical medication , however, it has systemic use, especially in the prevention of Chagas disease in which sterilization of blood transfusions has been done (2).

Recent studies and case reports have shown that gentian violet application may be effective in various conditions such as inflammatory dermatoses, dermatological malignancies, burns, wound healing and hemangiomas, as well as infectious diseases. (3).

The mechanisms of function of gentian violet in treating those diseases include inhibition of protein synthesis, bacterial cell wall interference,photodynamic action,apoptosis, inhibition of cell proliferation and redox reactions (4).

Decubitus ulcers, impetigo, paronychia,burns,MRSA infections,umbilical infections and angular cheilitis are among the bacterial skin infections that could be treated with gentian violet use.

Oral hairy leukoplakia caused by Epstein- Bar virus in a young man was treated with gentian violet 2% solution three times a day for one month The complete resolution has been reported in this patient. (5).

Gentian violet is also effective agaist candida albicans.This agent has been found to be effective similar to ketoconazole but more than nystatin (6).

Warts have been completely cleared with gentian violet solution together with laser treatment (3).

Hemangioma and pyoderma gangrenosum have been reported to improve with the application of 2% gentian violet solution due its potential antiangiogenetic action (7).

A middle-age woman with recalcitrant mycosis fungoides has been successfully treated with daily application of gentian violet for two months, resulting in no progression of the disease (8).

Induction of apoptosis in malignant cells by gentian violet may explain its potential antitumor activity.

It was observed that gentian violet treatment used for wound healing provided remission in skin lesions in two elderly patients with recurrent B-cell lymphoma and recurrent cutaneous melanoma (3).

Erythema multiforme, prurigo nodularis, bullous pemphigoid,irritant contact dermatitis, atopic dermatitis, pachonychia congenita are some other skin diseases in which gentian violet treatment is successful through different mechanisms of action.

In an interesting case report, an excellent response using a combination of 40% trichloroacetic acid (TCA) peels and gentian violet was achieved in a patient with palmoplantar psoriasis (9).

It is thought that gentian violet accelerates wound healing by creating a protective barrier on wounds.

Gentian violet has also diagnostic abilities. It is used a diagnostic marker in tinea versicolor and porokeratosis.

Gentian violet is applied to the site of tinea versicolor, a dramatic accentuation of the infected areas compared with unaffected skin thereby distinguishing it from pityriasis rosea and vitiligo.

Gentian violet has stained further delineately the circumferential furrown of porokeratosis, confirming the diagnosis.

Furthermore gentian violet can be used for visualizing white hair during hair transplantation of white-haired patients (1).

The side effects of gentian violet are generally local side effects. These include stinging , contact dermatitis, staining,epistaxis,, and keratoconjunctivitis.

It has been reported that gentian violet solution applied several times a day at a concentration of 2% caused laryngotracheitis requiring entubation in an infant (10).

Academy of Breastfeeding Medicine (ABM) guidelines for treating Candida infection of the nipples state that an aqueous solution of gentian violet of less than 0.5% can be used for no more than 7 days on the nipple.

Its carcinogenic effect was detected in laboratory studies, but this effect was observed in experimental animals after using large doses for years.

Despite more than a hundred years of use not a single case of cancer can be definitively associated with gentian violet use. That's why, The FDA allowed the sale of gentian violet as an over the counter drug.

Gentian violet was found to be safe unless used in high concentrations and for long periods of time.

Its ease of use, cheapness and reliability have brought gentian violet treatment back to the agenda today, when antibiotic resistance is an important issue in recent decades.

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BETTER IVIG CHOICE FOR DERMATOLOGIST IN TEN

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Toxic epidermal necrolysis (TEN) are rare, acute life-threatening mucocutaneous bullous reactions characterized by extensive necrosis and detachment of the epidermis and mucosal epithelium, which are most commonly triggered by medications. The mortality rate of TEN exceeds 20% and is usually caused by infection and respiratory compromise.(1-3)

The immunopathologic mechanisms is mainly Drug-specific CD8+ cytotoxic lymphocytic reaction (with drug-specific human leukocyte antigen (HLA) class I restriction and T cell receptors) against keratinocytes leading to massive skin necrolysis. Various cytotoxic proteins and cytokines such as soluble granulysin, perforin, granzyme B, IL-15, Fas ligand, IFN-γ, TNF-α have been as mediators involved in the pathogenesis of TEN. Fas-Fas ligand pathway of apoptosis has been considered a pivotal step in the pathogenesis of TEN.(1-3)

SJS/TEN can be fatal due to complications in the acute phase. During the acute phase, potentially fatal complications include dehydration, electrolyte loss and acute malnutrition, bacterial infections (skin, mucous membranes, lungs) and septicaemia, acute respiratory distress syndrome,,hypercatabolism, gastrointestinal ulceration, perforation and intussusception, shock and multiple organ failure including prerenal failure, thromboembolism and disseminated intravascular coagulopathy, mucous membrane involvement.(1,2)

Management is heavily dependent on disease severity and rate of progression, patient comorbidities, available evidence, and physician experience. Until now, there is still no adequate consensus or guideline for the treatment of SJS/TEN. Therapy includes supportive care and topical and immunomodulating treatments, and aims to reduce morbidity, mortality, and long-term sequelae in survivors(1-4)

The use of an active intervention (systemic IS or IM agents) in the early stages of SJS/TEN is controversial. Immunomodulating treatment may be started, when there is progression of the disease (new lesions not only detachment of old lesions) within the last 24 hours. If this is the case, it should be started without delay, unless there are strong contraindications and potentially fatal complications.(1-3)

Although IVIG was once considered the first-line treatment for SJS/TEN, a large meta-analysis concluded that administration of IVIG does not correlate with mortality reduction in multivariate regression analysis when adjusting for age, total body surface area involved, and delay in treatment compared to predicted mortality in adult patients. Currently, there is not enough evidence to recommend IVIG or steroid monotherapy for adult patients with TEN. However,TEN patients may benefit from early monotherapy nonsucrose IVIG therapy in adult patients. IVIG is still considered a safe and effective option for pediatric patients and pregnant women. Over the past decade, randomized controlled trials and meta-analyses have supported a role for cyclosporine, TNF-**α** Inhibitors and especially combination therapy with intravenous immune globulin(IVIg) and corticosteroids in adult patients with TEN.(1,2,4-8)

The therapeutic effect of IVIG in TEN is thought to arise from the inhibition of Fas-mediated cell death by antagonistic anti-Fas antibodies. Combination of IVIg (total dose of 2g/kg, for 5 days) with corticosteroids(1.5 mg/kg/day of methylprednisolone for 3 to 5 days) may synergistically create beneficial treatment effects by simultaneously targeting different pathways(1,3-8):

- The meta-regression analysis confirms that IVIg plus corticosteroids are associated with less deaths than predicted by SCORTEN
- Corticosteroids plus IVIg therapy are significantly shorter recovery time than those treated with corticosteroids alone
- Additionally IVIg is considered safe, and can protect against infection, a common major complication in patients with SJS/ TEN

Cyclosporine and etanercept are promising therapies, but more studies are required to provide clearer evidence(4).

For these reasons and considering the contraindications and potentially fatal complications (eg bacterial infections, Pneumonia, sepsis, multiple organ failure) in the acute phase of TEN, dermatologists prefer the combination of IVIG and systemic corticosteroids in the treatment of TEN.

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DAPSONE TREATMENT FOR SKIN APPENDAGE DISORDERS

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Dapsone is a sulfone drug, with antimicrobial, bacteriostatic and anti-inflammatory properties. It inhibits the synthesis of dihydrofolic acid binding dihydropteroate synthetase which explains the antimicrobial and bacteriostatic effects of dapsone. It inhibits the synthesis of hypochlorous acid which is a potent oxidant that can lead to tissue damage and inflammation by binding neutrophilic myeloperoxidase. This explains the anti-inflammatory properties of dapsone especially in neutrophilic inflammatory skin conditions. It has a potent activity in reducing the effect of eosinophil peroxidase on mast cells, which results in a decreased liberation of histamine. Dapsone causes a dose-dependent inhibition of TNF-α, the generation of leukotriene products, beta-2 integrin, and interleukin 8 (IL-8).

Today, dapsone is commercially available as a topical (5% and 7.5% gel), oral, and inhaled formulation. Dapsone can suppress disease activity in several chronic inflammatory dermatoses but FDA-approved indications for dapsone are leprosy, dermatitis herpetiformis and topical use for acne vulgaris. The side effects of dapsone are listed in Table 1. The ones who have significant heart or lung disease and pregnant (category C), breast feeding should not use dapsone treatment. Laboratory evaluation before initiation and following up dapsone therapy are summarized in Table 2.

	Side effects
Relatively frequent	Nausea, vomiting, abdominal pain, headache
Greater importance	Peripheral neuropathy, vertigo, blurred vision
	Allergy
	Anemia; usually mild Severe anemia is likely in patients with **glucose-6-phosphate dehydrogenase deficiency.**
Very rare	Renal papillary necrosis
	Psychosis
	Weakness of the foot and hand muscles
Rare but serious	Dapsone hypersensitivity syndrome: HLA-B*13:01 allele:
	A significant decrease in the white blood

Table 1: Side effects of dapsone

Before initiation	Following up
Complete Blood Count	Complete Blood Count: Every 2 weeks for the first 3 to 6 months, and then every 2 months.
Liver Function: Bilirubin/AST/ALT/GGT	Liver Function, Renal Function, Urinalysis: Monthly in the first 3 to 6 months and then every 2 months.
Renal Function: Creatinine, Urea	Met-Hemoglobin: As clinically indicated
Glucose-6-phosphate dehydrogenase	
Met-Hemoglobin	
Urinalysis	
Serologic test for hepatitis	

Table 2: Laboratory evaluation before initiation and following up dapsone therapy.

Dapsone is understood to be effective in treating diseases characterized by abnormal neutrophil recruitment. As monotherapy it is preferred in treating dermatitis herpetiformis, subcorneal pustulosis, erythema elevatum diutinum, acropustulosis infantilis, and prurigo pigmentosa. Dapsone is used as an adjuvant treatment, especially in patients who experience insufficient therapeutic response to corticosteroids or other first-line agents, who have a need to reduce corticosteroid dosage, or in whom other first-line drugs are contraindicated or not tolerated. There are also reports that are anecdotally used in treatment.

Acne vulgaris

Topical dapsone 5-7.5 % gel is safe and effective in the treatment of acne vulgaris. It shows much greater efficacy for inflammatory as opposed to non-inflammatory lesions. For non-inflammatory lesions combination with other available topical therapies such as topical retinoids and benzoyl peroxide is effective. Temporary local yellow-orange discoloration of the skin as well as facial hair in combination with benzoyl peroxide. Regarding its safety profile, dapsone gel is associated with low systemic exposure and is well tolerated in patients with acne vulgaris. It is unsafe to use in pregnancy (category C), in breast-feeding, in patients younger than 12 years, and in the geriatric population older than 65 years. Oral dapsone use in acne vulgaris is not FDA approved although there are case reports.

Hidradenitis suppurativa (HS)

Current guidelines recommend dapsone as a third-line treatment for patients with mild to moderate HS. Dapsone has mainly been used as an effective treatment in mild to moderate cases of HS, although it has been shown to be helpful in severe cases in some instances.

Alopecia

Dapsone is a second line therapy for cutaneous lupus erythematosus. Both topical and oral dapsone use are successfully affected in folliculitis decalvans and in cases of disseminated disease of erosive pustular dermatosis.

There are also successful case reports as Ofuji's disease, PASH syndrome, follicular musinosis, EGFR inhibitor-induced acneiform eruption which are treated with oral or topical dapsone.

DERMATOSES OF PREGNANCY: CLASSIFICATION, DIAGNOSIS AND TREATMENT

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Pregnancy is associated with complex endocrinological, immunological, metabolic, and vascular changes that may influence the skin in various ways. Skin changes in a pregnant woman can be classified as physiological conditions, general dermatoses, and specific pregnancy-related dermatoses.

Physiological skin changes associated with pregnancy: pigmentation, changes in connective tissue, vascular changes, changes in the intensity of sweating, changes in the oral mucosa, effects on hair growth, changes in nails [1]. Causes of skin changes during pregnancy are associated with the production of a series of hormones and fetoplacental unit, maternal pituitary, thyroid and adrenal glands. The level of progesterone in the last week of gestation is 7 times, estradiol – 130 times, and the level of prolactin is 19 times higher than at the 8th week of pregnancy. There is an increase in humoral immunity and a delay in the growth of cellular immunity. An imbalance between the cellular and humoral immunity is designed to prevent fetal rejection [6].

Candidiasis can progress during pregnancy, half of newborns from sick mothers have signs of infection. Skin malassesiosis occurs more often during pregnancy. More common symptoms of HSV infection (vertical transmission is possible) [2].

Systemic lupus erythematosus (SLE) in the remission phase does not progress during pregnancy, if SLE is in the active phase – worsening of the disease [2]. Sclerodermia usually improves during pregnancy. Lichen sclerosus does not usually interfere with becoming pregnant, or having a vaginal birth. Due to hormone changes, some women notice an improvement during pregnancy. Dermatomyositis proceeds without changes.

Porphyria cutanea tarda, acrodermatitis enteropathica as a rule shows biochemical and clinical impairment [3]. Hydradenitis and Fox-Fordice disease becomes better as a result of decreased apocrine glands activity [2].

The course of psoriasis can either improve or worsen during pregnancy. Psoriatic arthritis always gets worse.

Melanoma that develops during pregnancy has a poor prognosis. If pregnancy occurs after tumor resection, the prognosis is good. The course of neurofibromatosis worsens, manifestation may occur, the risk of vascular rupture [2].

Dermatoses of pregnancy represent a heterogeneous group of inflammatory skin diseases related to pregnancy and/or the postpartum period [4]. Whereas some dermatoses are distressing only to the mother because of severe pruritus, others are associated with fetal risks including fetal distress, prematurity, and stillbirth.

A new classification of these specific dermatoses of pregnancy has been proposed that includes the following diseases: atopic eruption of pregnancy (AEP), polymorphic eruption of pregnancy (PEP), pemphigoid gestationis (PG), intrahepatic cholestasis of pregnancy (ICP) [5].

In 75% of cases of AEP the clinic develops before the 3rd trimester. No risk to mother or fetus. AEP is usually a diagnosis of exclusion. Differential diagnosis with intrahepatic cholestasis of pregnancy, scabies and drug allergies.

Treatment is symptomatic: topical steroids, antihistamines and emollients [5].

The frequency of PEP is 1 in 160 pregnancies. It is observed at the end of the 3rd trimester or immediately after childbirth. The risk of PEP is higher with multiple pregnancies and rapid weight gain. Urticarial papules and plaques on the abdomen are typical. The rash may spread to the thighs and buttocks. There may be bubbles of 1-2 mm. Unlike pemphigoid of pregnant women the umbilical region is not affected, blisters are not observed. No risk to mother or fetus. May regress spontaneously within 4-6 weeks without treatment. Treatment is symptomatic: topical steroids, antihistamines [1, 4 ,5].

Frequency of PG is 1 in 2,000 - 1 in 6,000 pregnancies. Develops in the 3rd trimester. 75% have an exacerbation during childbirth. PG resolves spontaneously within a few months after delivery. Initially, papules and plaques are characteristic, which are transformed into vesiculobullous elements. Eruptions appear in the navel area with subsequent spread to the chest, back and limbs. The palms and soles may be involved. The face is not affected, but the mucous membranes may be. Characterized by relapses in subsequent pregnancies, with an earlier onset and severe course. Carries a risk to the fetus

due to the transfer of antibodies through the placenta. Treatment for PG should be aimed at reducing itching and blistering. In mild cases, topical corticosteroids and antihistamines are effective. In severe bullous PG, it is advisable to use systemic corticosteroids [7].

The frequency of ICP is 10-150 cases per 10,000 pregnancies, more common in South America and Scandinavia, probably due to dietary factors. It is manifested by sudden itching of the palms and soles, then the itching is generalized. Skin lesions secondary to pruritus (excoriations, may be papules). Jaundice in 20% of cases. Diagnosis – elevated levels of bile acids. Hyperbilirubinemia only in the most severe cases, about 10-20%. Liver function tests may be normal in 30%. Possible fetal complications include preterm birth, fetal distress, and fetal death. Treatment with ursodeoxycholic acid (UDCA) is recommended. Antihistamines, S-adenosyl-L-methionine, dexamethasone may be used. Cholestyramine can cause vitamin K deficiency regardless of the presence of ICP and hence should be avoided [1]. Criteria for diagnosing cholestasis of pregnancy: itching that occurs during pregnancy in women who have not had hepatitis; generalized pruritus with and without jaundice; no primary skin lesion; itching on palms and soles; changes in biochemical parameters corresponding to cholestasis; rapid relief of itching after childbirth; recurrence of itching during the next pregnancy [1, 5].

Additionally, it should be discussed pustular psoriasis of pregnancy (Hebra's impetigo herpetiformis), witch occurs acutely as erythematous plaques covered with subcorneal pustules on flexion surfaces. The rash is accompanied by itching and pain, erosions of mucous membranes, onycholysis. When resolved, vegetative plaques, papules are formed. There may be convulsions, delirium due to lack of calcium.

The complications of pustular psoriasis of pregnancy: erythroderma (fluid and electrolyte imbalance, impaired thermoregulation, hypoalbuminaemia, maternal sepsis, death due to cardiac or renal failure); placental insufficiency

(intrauterine growth retardation, miscarriage/stillbirth). The outcome of the disease can be fatal: associated with preterm birth, placental insufficiency, premature rupture of membranes, fetal death. The possibility of early induction of labor is being considered. Treatment: the appointment of infusion therapy and corticosteroids in doses of 60-90 mg of prednisolone per day. With inefficiency – cyclosporine 5-10 mg/kg per day. Some suggest calcium supplements, methotrexate, sulfones. After delivery – remission, relapses – in subsequent pregnancies [8].

Knowledge and understanding of skin changes during pregnancy will allow you to choose the optimal tactics for supervising a pregnant woman, treating and preventing complications.

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NAIL ABNORMALITIES AS AN INDICATOR OF GENERAL OR SKIN DISEASES

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About 10% of patients seeking medical help from a dermatovenereologist have changes in the nails. Changing the appearance of nails affects the quality of life of a person, causing him psychological, aesthetic, and often functional problems. Dystrophic nail changes can indicate violations of human health and contribute to its early diagnosis.

Changing the shape, size, configuration of nails, their surface or color can be part of a diagnostic, and often prognostic, symptom complex of a general or skin disease [1].

Various diseases of the skin, general diseases, external influences, the use of drugs lead to this condition. In addition, there are OD, in which it is not possible to establish a connection with any disease or pathological condition.

Damage to the matrix (for example, in case of injury) leads to irreversible changes of the nail. The growth of nails slows down in older people, in violation of the blood supply to the matrix and nail phalanx (for example, in vascular spasms of the extremities), with prolonged fasting, with a lack of vitamins and minerals in food, and in certain general somatic diseases. But during pregnancy and with some skin diseases (psoriasis, ichthyosis) nail growth, on the contrary, is accelerating. Full regeneration of the nail along the entire length lasts 170 days [2].

Onychodystrophy (OD) groups: trophic changes associated with impaired functions of various organs and systems (endocrine, vascular, nervous, etc.); nail changes in various skin diseases (psoriasis, eczema, lichen planus, alopecia alopecia, etc.); nail diseases associated with the influence of local factors (mechanical, physical, chemical and biological). OD is a collective term for changes in the nails that occur under the influence of various factors, which include the pathological condition of the skin, the nail matrix, the nail bed and the nail plate itself.

In such cases, OD acts as an independent nosological unit, which is reflected in the International Classification of Diseases (ICD-X, 1995) under the heading L 60: L60.0 Ingrowing nail; L60.1 Onycholysis; L60.2 Onychogryphosis; L60.3 Nail dystrophy; L60.4 Beau's lines; L60.5 Yellow nail syndrome; L60.8 Other nail disorders; L60.9 Nail disorder, unspecified.

Ivanov O.L. et al. (2007) proposed to divide all symptoms of nail damage into three groups [3]: 1) changes in nail size and shape – onychogryphosis, anonychia / micronychia, platonychia, koilonychia (spoon nails, spooning), Hippocratic nails (clubbing, watch-glass nails), onychauxis, pachyonychia congenita, dolichonychia;

2) changes in nail surface and structure – onycholysis, onychomadesis, transverse and longitudinal nail ridges and lines, trachyonychia, hapalonychia, brittle nails, nail pitting, onychorexis, scleronychia, onychoschisis, median canaliform dystrophy, nail trauma;

3) changes in nail color (nail discoloration) – primary, secondary, leukonychia.

Onychogryphosis: nails are hypertrophied, thick, curved, may be in the form of horns, claws or even spirals, reach a length of 6-8 cm or more. The surface of the nail is uneven, lumpy, the color is brown or dirty-yellow, the consistency of hardness resembles the horn of an animal, the claw of a bird. Causes: flat feet, frostbite of fingers in history, transferred mechanical injuries of the nails, circulatory disorders in the legs and feet, onychomycosis, psoriasis.

Micronychia – small short fingernails and toenails. This may be a congenital anomaly, is also found in persons biting their nails, with epilepsy, trophi neurosis, progressive systemic scleroderma, Klippel–Trénaunay syndrome.

Anonychia is the absence of all nails or individual fingers and toes. Anonychia may be congenital (rare hereditary anomaly) and acquired (in case of injury of the nail matrix), irreversible (in case of death of the matrix or scar atrophy of the nail bed) or temporary. May be in patients with: congenital epidermolysis bullosa, atrophic form of lichen planus, acantholytic pemphigus, ectodermal dysplasia, ichthyosis, as a symptom in syndromes: Coffin–Siris syndrome (anonychia, oligophrenia, other anomalies), tooth and nail syndrome (dysgenesis of nails and hypodontia).

Platonychia is characterized by an abnormally flat and broad nail. All or most of the nail plates are affected. Causes: autosomal-dominant multiple nail abnormalities (genetic family pathology); iron deficiency condition, professional factors, liver cirrhosis, psoriasis. Platonychia may be the initial stage of koilonychia.

Koilonychia (spoon nails) looks like the center of a nail is scooped out. The nail becomes thin and the outer edges turn up. Nail may crack, and the outer part may come out of the nail bed. The most frequent cause of spoon nails is iron deficiency anemia. But spoon nails can also result from: trauma to the nail, chemotherapy or radiation therapy for cancer, frequent exposure to petroleum solvents or detergents. Some of the diseases associated with spoon nails are: celiac disease, diabetes, heart disease, hemochromatosis, lupus, malnutrition, psoriasis, Raynaud's syndrome, thyroid disorders, vitamin B deficiency.

Hippocratic nails (clubbing, watch-glass nails): fingers in the form of «drum sticks»**, a change** in nails like «watch glasses». For the first time this type of onychodystrophy was described in the I century BC by Hippocrates in patients with pleural empyema. The curvature of the nail plate is strengthened in the transverse and anteroposterior directions, the free edge of the nail is often bent downwards.

Onychauxis is a combination of thick nails and expressed subungual hyperkeratosis. The nail surface is uneven, dominated by a dark gray, brown color. It is found in psoriasis, eczema, onychomycosis, acrocyanosis, varicose veins, adiposogenital dystrophy, inflammatory processes of the nail ridges, Jadassohn-Lewandowski syndrome (Pachyonychia congenita).

Normally, the ratio of the length of the nail to the width is 1.0 (0.77-1.30), in case of dolichonychia it increases to 1.5-1.9. Such deformation can be observed in Ehlers–Danlos syndrome, Marfan syndrome, eunuchoidism, hypopituitarism.

Onycholysis is a partial or complete separation of the nail plate from the nail bed. It can start from the side edges, but more often from the free edge. The separated part of the nail acquires a whitish-gray color, often separated from the bed is not completely. Causes: injuries, intoxication, neurotrophic disorders, dermatosis (psoriasis, eczema, congenital epidermolysis), bacterial and fungal infections, syphilis, alopecia, drug effects (tetracycline, ibuprofen, retinoids, PUVA therapy), artificial dermatitis.

Onychomadesis is a complete separation of the nail plate from the bed, but unlike onycholysis, the nail is separated from the rear edge. In all cases the function of the matrix is violated. It is observed in the dystrophic form of epidermolysis bullosa, chronic granulomatous candidiasis, and injuries. The process most often leads to the loss of the nail plate and anonychia, more or less stable, depending on the cause.

Horizontal nail ridges (Beau's lines) are transverse furrows of the nail plates that can be caused by various conditions, often endogenous: starvation, myocardial infarction, pulmonary embolism, severe pneumonia, infectious diseases accompanied by high fever (measles, mumps, scarlet fever), uncontrolled diabetes, zinc deficiency, various dermatoses. Beau's lines on all 20 nails can be a sign: viral parotitis (mumps), thyroid diseases, diabetes, syphilis.

Horizontal nail lines (Mees' lines) arise after weaker effects on the matrix. Mees' lines (also known as Aldrich or Reynolds' lines) are transverse white bands on the nail plate laid down during periods of stress. Common associations are poisioning (arsenic, thallium, fluorosis), severe infection, renal disease, cardiac failure, and malignant disease. Mees' lines are indicative of systemic pathology and serve as a useful clinical guide.

Longitudinal nail ridges and lines can be observed in healthy people. Causes: senile changes, lichen planus, disturbance of peripheral blood circulation. Cases of the formation of two furrows along the edges of the nail in case of arterial hypertension and coronary insufficiency are described. Longitudinal lines may not be solid, but consist of several parts.

Trachyonychia – nail plate becomes dull, rough, can peel off with small scales. Observed in patients with eczema, alopecia areata, but often - idiopathic.

Hapalonychia, also known as egg-shell nail, is a condition in which the top of a toe or finger nail becomes soft and thin, causing it to bend or break. This condition can manifest as a result of genetic abnormalities, malnutrition, endocrine dysfunctions, spastic paralysis, metabolic disturbances, and due to local effects of chemical and mechanical agents.

Nail pitting is especially common in psoriasis, but is not specific, and can also be observed in eczema, ichthyosis, phrenoderma, keratoderma, pityriasis rubra pilaris, pulmonary tuberculosis, rheumatism, alopecia areata. It is also found in practically healthy people.

Onychorexis – brittleness, splitting nails in the longitudinal direction. Individual nails can be affected, less often - all the nails on the hands. The nails of the feet are rarely affected. It is often the result of dysproteinemia, which is caused by diseases of the liver and biliary tract, endocrine dysfunctions (disorders of the ovarian cycle). May occur with dermatosis (psoriasis, eczema, lichen planus), due to the effects of mechanical and chemical factors.

Onychoschisis is one of the most frequent in the clinic of professional diseases of the nail; observed with musicians,

weavers, and after frequent manicure. Onychoschisis – splitting of the nails, in contrast to onychorexis – in the transverse direction. In the pathogenesis there are often recurring injuries of the free edge of the nail (manicure, playing on stringed instruments); often observed with eczema and lichen planus. The nail grows normally to the free edge, and then begins to split into 2-3 layers or more.

Median canaliform dystrophy of Heller is a rare onychodystrophy of thumb nails characterized by a midline or a paramedian longitudinal furrow with multiple transverse parallel lines. It rarely involves toe nails and other finger nails. The majority of cases of median canaliform dystrophy are idiopathic. Other causes includes traumatic injury to the base of nails, use of oral retinoids, subungual skin tumors, such as glomus, myxoid. Possible family character.

There are three main types of partial leukonychia: punctate leukonychia, which presents as small white spots; longitudinal leukonychia, which presents as a white band down the nail; striate or transverse leukonychia, where one or more horizontal lines appear across the nail, parallel to the lunula. Leukonychia can be divided into two other types - true or apparent. When the white spot or line is caused by damage to the nail, the condition is known as true leukonychia. With true leukonychia, the white areas remain unaffected when pressure is put on them. These areas will grow out as the nail does. Apparent leukonychia occurs when the bed underneath the nail is affected. With apparent leukonychia, the nail bed affects the color of the nail plate. It will lessen or disappear under pressure and will not grow out with the nail.

Muehrcke's lines – two white lines on the nail, parallel lune. They do not move as the nail growth. They are a sign of hypoalbuminemia, after normalization of the content of serum albumin, they disappear. Often observed in nephrotic syndrome.

Terry's nails – the proximal 2/3 of the nail is white, the distal 1/3 – pink. Quite rare, mainly in heart failure and liver cirrhosis, accompanied by hypoalbuminemia.

Half-and-half nails, characterized by apparent leukonychia of the proximal half of the nail. Detected in patients with chronic renal diseases, in 10% of patients with uremia.

Cyanosis of the nail bed: spastic states, decompensated mitral valve defects, liver cirrhosis, cyanide poisoning.

Cyanosis with a green tint – poisoning with copper salts, treatment with cytostatics (metatrexate).

Yellow-brown color: liver cirrhosis (products of bilirubin degeneration).

Pseudomonas aeruginosa infection – green and gray, aspergillus – black, brown or yellow (depending on the type of pathogen), candidiasis – brownish green.

Melanoma with localization in the nail area in people with white skin is 1-4% of all cases of melanoma, with dark skin – up to 25%. Pathognomonic Getchinson's symptom – the spread of pigmentation on the periungual area (unlike hematoma, when the darkened area is limited in nail bed and moves distal with the growth of the nail).

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DERMATOLOGIC EMERGENCIES

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The skin is the largest human organ, performing a number of irreplaceable functions. Significantly affects the overall health and quality of life of a person. It is a "window" or "screen" and reflects what is happening inside the body [1]. In dermatological practice, some diseases are classified as emergency conditions. In some of them, the skin is the main organ affected (eg, pemphigus vulgaris, Lyell's syndrome), in others, skin lesions are an important diagnostic feature of the underlying disease (eg, meningococcemia). It is very important to recognize skin rashes in emergency conditions, which in the acute period can end in death [2,3].

Objectives: Identify clinical clues to the diagnosis of potentially life-threatening dermatologic conditions; describe the clinical presentation of important dermatologic emergencies; discuss infectious and pharmacologic causes of life-threatening dermatoses.

The main groups of urgent dermatovenereological conditions: vesiculobullous disorders (eg, Stevens-Johnson syndrome, toxic epidermal necrolysis, pemphigus vulgaris); infections; autoimmune disorders (eg, acute rashes in systemic lupus erythematosus, juvenile rheumatoid arthritis); inflammatory skin diseases (eg, desquamative erythroderma, acute pustular psoriasis, acute drug-induced toxidermia); painful conditions caused by external influences (for example, heat stroke, electric shock, effects of child abuse) [1,2,4,5].

Clues for a potential dermatological emergency: fever and rash, fever and blisters or denuding skin, rash in immunocompromised, palpable purpura, "full body redness". Mortality rate for skin infections and manifestations of infections on the skin: necrotizing soft tissue infections - 25%; clostridium - 38%; meningococcemia - 20%; herpetic eczema - 5-9%; herpes of newborns - 40%; staphylococcal scalded skin syndrome: children - 3%; adults - 50% [1,4].

Staphylococcal scalded skin syndrome is observed in children (usually up to 5 years), rarely in adults with renal insufficiency. It is caused by a special staphylococcus toxin of the phage group II, phage type 71 and called exfoliatin. This toxin causes exfoliation of the epidermis directly below the granular layer of the epidermis. Mortality is 3% in children, >50% in adults. Dermatologic findings: erythema on the face around the mouth, eyes, neck, axilla and groin. Then generalized within 48 hours as the color deepens, skin fragility increases, flaccid bullae appear, positive Nikolsky sign. After opening the blisters, the skin takes on the appearance of scalded or burned. Within 1-2 days, flexural areas begin to slough off. Severe lesions of the mucous membranes are not observed. Complete re-epithelialization after 1-2 weeks.

Necrotizing fasciitis is necrosis of subcutaneous tissue due to infection. Etiology: type I – mixed anaerobes, gram negative aerobic bacilli and enterococci; type II – group A streptococci. Risk factors: diabetes, peripheral vascular disease, immunosuppression. Dermatologic findings: diffuse edema and erythema of the affected skin-> bullae-> burgundy color-> gangrene; severe pain, anesthesia, crepitus, exudates.

Meningococcemia is caused by Neisseria meningitides (gram neg diplococcus) and is transmitted by the respiratory route. Often seen in young adults and children. Risk factor: asplenia, immunoglobulin or terminal complement deficiencies. Dermatologic findings: abrupt onset of maculopapular or petechial eruption on acral surface, trunk or lower extremities -> progression to purpura in hours; angular edge with «gun metal gray» center; +/- mucosal involvement. Petechiae may evolve into ecchymoses, bullous hemorrhagic lesions, ultimately ischemic necrosis.

Eczema Herpeticum (Kaposi's varicelliform eruption) is caused by Herpes virus (HSV1 > HSV2). Risk factor: any diseases with impaired skin barrier. Dermatologic findings: 2-3 mm umbilicated vesicles -> punched out erosions-> hemorrhagic crusts. If severe, may have systemic involvement.

Erythroderma manifests itself as generalized erythema involving 90% of BSA, pruritus. Clinical presentation: fever, malaise; excessive vasodilatation -> protein and fluid loss -> hypotension, electrolyte imbalance, congestive heart failure. Etiology: 50% due to preexisting dermatoses – seborrheic dermatitis, lymphoma (CTCL), leukemia, atopic dermatitis, psoriasis, pityriasis rubra pilaris, idiopathic, drugs (esp in HIV pts). Management: supportive care with fluid and electrolyte; need to search for underlying causes -> treatment of underlying dermatoses (topical corticosteroids, emollients); exception of signs of infection; mortality is 18%.

Types of Drug Reactions: exanthematous eruptions; fixed drug eruption; drug-induced hypersensitivity syndrome (DIHS), also

called Drug-related eosinophilia with systemic symptoms (DRESS); epidermal necrolysis: Stevens-Johnson syndrome (SJS), and toxic epidermal necrolysis (TEN). Drug-induced skin reactions can be classified according to timing: immediate reactions: occur less than 1 hour of the last administered dose (urticaria, angioedema, anaphylaxis); delayed reactions: occurring after one hour, but usually more than 6 hrs and occasionally weeks to months after the start of administration (exanthematous eruptions, fixed drug eruption, systemic reactions (DIHS, SJS, TEN), vasculitis (may also be systemic)).

Exanthematous eruptions are the most common of all cutaneous drug eruptions (~90%). Limited to the skin. Lesions initially appear on the trunk and spread centrifugally to the extremities in a symmetric fashion. Erythematous macules and infiltrated papules, pruritus and mild fever may be present. Skin lesions usually appear more than 2 days after the drug has been started, mainly around day 8-11, and occasionally persists 2-3 days after having stopped the drug. Treatment consists of topical steroids, oral antihistamines, and reassurance. Resolves in a few days to a week after the medication is stopped. Can continue the medication if the eruption is not too severe and the medication cannot be substituted. Resolves without sequelae (though extensive scaling/ desquamation can occur).

Fixed Drug Eruption is an adverse drug reaction characterized by the formation of a solitary erythematous patch or plaque that will recur at the same site with re-exposure to the drug. Commonly involved drugs include: phenolphthalein (laxatives), tetracyclines, metronidazole, sulfonamides, barbiturates, NSAIDs, salicylates, food coloring (yellow). Often affects the mouth, genitalia, face, and acral areas. In previously sensitized individual, lesions may occur from 30 minutes to 8 hours after ingesting the drug. Early lesions are sharply demarcated erythematous macules. Lesions become edematous, forming a plaque, which may evolve to become a bulla and then an erosion. Healed lesions are dark brown with violet hue. Commonly solitary and can become large, may be multiple with random distribution. Treatment: lesions resolve days to few weeks after the drug is discontinued; non-eroded lesions can be treated with a potent topical glucocorticoid ointment; eroded cutaneous lesions can be treated with an antimicrobial ointment and a dressing until the site is reepithelialized; address pain, especially for mucosal lesions.

Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are acute life-threatening mucocutaneous reactions, characterized by extensive necrosis and detachment of the epidermis and mucosal surfaces. These two conditions represent an identical process but differ in severity based on body surface area (BSA) that is involved. SJS/TEN is a dermatologic emergency: mortality rate varies from 5-12% for SJS and > 20% for TEN. Increasing age, significant comorbid conditions, and greater extent of skin involvement correlate with poor prognosis. Clinically begins within 6-8 weeks after the onset of drug exposure. Fever, headache, rhinitis, and myalgias may precede the mucocutaneous lesions by 1-3 days. Eruption is initially symmetric and distributed on the face, upper trunk, and proximal extremities. Rash can rapidly extend to the rest of the body. Initial skin lesions are characterized by erythematous, irregularly shaped, dusky red to purpuric macules (atypical targets), which progressively coalesce.

Dark center of atypical target lesions may blister. Mortality rates: SJS < 10%, SJS/TEN 10-30%, TEN > 30%. Treatment includes early recognition and withdrawal of the offending drug(s) and supportive care. In case of doubt, all non-life-sustaining drugs should be stopped. Consult dermatology at earliest moment of concern for SJS or TEN.

Care should proceed in a burn unit for patients with >25-30% BSA involvement. Multidisciplinary approach is necessary; immediately consult ophthalmology if there is ocular involvement

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PERIUNGUAL CANCERS

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Although periungual skin has virtually all components of most other skin regions, cancers in this particular localization are surprisingly rare. They are mainly squamous cell carcinomas and melanomas with rare other malignant tumors.

The most common malignant periungual tumor is squamous cell carcinoma with its *in situ* form of Bowen disease. The majority of patients with periungual Bowen disease are men in their forties and fifties. Middle, index fingers and thumbs are mainly affected, whereas periungual toe skin rarely develops Bowen disease. The condition often starts with a flat verrucous growth which is overlooked or neglected for years or even decades. Finally, a hard nodule may develop with a tendency to ulceration and crusting. This represents frank squamous cell carcinoma with the potential to invade the nail unit and underlying bone as well as to metastasize although this is commonly a late event. Bowen disease may cover large areas because of its late diagnosis and delayed treatment. Bowen disease around the nail may be pigmented and pose differential diagnostic problems with melanoma.[1] Most *in situ* cases are due to high-risk human papilloma viruses, particularly types 16, 18 and 56, but many more were found by serologic and PCR studies. Between one third to one half is probably related to ultraviolet radiation; this is a low percentage compared to the head and neck region but easily explainable by the fact that periungual skin has a relatively thick horny layer which is the most effective UV shield. Whether or not there will be more UV-induced periungual cancers in women undergoing repeated ultraviolet curing of artificial nails remains to be seen. The number of periungual high-risk HPV related cancers will probably drop in the coming decades due to HPV vaccination against cervical cancers. The treatment of choice of periungual Bowen disease is Mohs micrographic surgery. The defect may be repaired with a split-thickness or full-thickness skin graft with excellent aesthetic and functional result. Treatment alternatives are topical immunotherapy with imiquimod, topical 5-fluorouracil, and photodynamic therapy; however, these are blind methods and complete healing cannot be assured in most cases.[2] Burying of deeper tumor growths with insidious growth over years have been observed. Radiotherapy is not primarily recommended as the underlying bone and nail matrix may be irreversibly damaged.

Squamous cell carcinoma of the periungual skin usually develops from Bowen disease but may also occur *de novo*. Clinically, it is an insidiously growing hard keratotic nodule that may later erode and ulcerate. Metastases are rare and develop late except in organ transplant patients. Again, the treatment of choice is Mohs surgery. Non-invasive treatment alternatives are not primarily recommended.

Basal cell carcinoma is very rare in the nail region and periungually. In most cases it is taken for a chronic paronychia and treated as such for months and years. Recently a more typical morphology was described.[2]

Periungual melanoma is very rare although subungual melanoma represents approximately 2 – 2.5% of all melanomas in light-skinned Caucasians. It is usually seen as a periungual pigmentation that may be very light brown to almost black depending of the skin type of the patient. It is often not clear whether this periungual melanin pigmentation is a new *in situ* melanoma or perhaps a Hutchinson sign from a hidden melanoma of a nail matrix melanoma. This *in situ* lesion is often allowed to grow for years as it concerns elderly patients who are not primarily bothered by an asymptomatic pigmentation and general physicians are not aware of the potentially grave nature of the lesion. Clinically, the lesion that is in fact a lentigo maligna is an irregular brown spot that may develop a nodule after many months, several years or even some decades. This type of melanoma can be effectively cured by complete excision with a 10-mm safety margin. This wide margin is recommended as so-called melanoma field cells were found with molecular pathological techniques up to 9 mm around the visible border of the lesion. Although Mohs surgery is an option these field cells are not distinguishable by routine histopathology and even immunohistochemistry from normal melanocytes and thus negative appearing margins in Mohs surgery specimens may give a false impression of complete melanoma eradication; this is an experience that clearly contrasts with basal and squamous cell carcinoma therapy. Primary invasive melanoma around the nail is very uncommon and has a poor prognosis as it is often mistaken for a nevus and usually diagnosed very late.

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Aggressive digital papillary adenocarcinoma is a malignant tumor thought to derive from sweat glands. It has a poor prognosis as it rapidly metastasizes often despite radical surgery.

All other carcinomas are very rare around the nails. Most reports deal with single cases.

Finally, metastases of internal tumors infrequently affect the periungal skin.

Periungual carcinomas are uncommon lesions. They are mostly diagnosed late. More awareness is necessary to achieve better cure rates.

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COMMON SKIN APPENDAGE TUMORS

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Skin appendage tumors are a diverse group of tumors that are commonly classified according to their state of appendageal origin and differentiation: sweat gland tumors (apocrine and eccrine), hair follicle tumors, sebaceous gland tumors, and tumors of the smooth muscle of the skin (1). While hair follicles, sebaceous glands, smooth muscles of the skin, and apocrine sweat glands are located close to each other and form a complex called pilosebaceous unit, eccrine sweat glands are localized separately in the skin. While these tumors typically exhibit benign behavior, it is important to acknowledge the existence of malignant variants within this group. Additionally, the presence of certain appendageal tumors, particularly when they are multiple, can be indicative of an underlying genetic condition (2). Hereby, common inherited syndromes characterized by skin appendage neoplasms will also be mentioned.

1. Sweat gland tumors

1.1 Syringoma: Syringoma is a common benign eccrine sweat gland tumor, often occurring as multiple small papules, primarily in adults aged 20 to 40. These lesions are usually symmetrically distributed in the periocular area but can also appear on the nose, forehead, chest, and other areas. While generally skin-colored or yellowish-white, they may rarely be darker. Most patients with syringomas are otherwise healthy, but there are a few syndromes that might be associated with syringomas: Down syndrome, Castello syndrome, and Nicolau-Balus syndrome (3).

1.2. Eccrine Hidrocystoma: Eccrine hidrocystoma is a benign cystic tumor resulting from a blocked and dilated eccrine duct, more commonly observed in middle-aged women, particularly on the face, eyelids, lateral canthus, nose, and malar areas. Multiple symmetric lesions are typical, but solitary lesions may also occur, presenting as translucent, bluish-tinted cystic papules. The distinctive feature is the seasonal variation in symptoms, with papules enlarging in hot weather and diminishing in winter. While excision is an option for solitary lesions, medical therapies, such as topical and systemic anticholinergic drugs and intradermal botulinum toxin, are often preferred for multiple lesions, aiming to reduce sweat production.

1.3. Poroma (Eccrine Poroma): Poroma is a benign adnexal neoplasm initially believed to originate solely from the eccrine gland but can be of either eccrine or apocrine origin. Typically appearing in adulthood, it commonly presents as a solitary, soft, sessile, pink or reddish papule, nodule, or plaque, often found on the soles, sides of the feet, hands, face, scalp, trunk, or other extremities. While most cases remain unchanged throughout life, a rare clinical presentation called “poromatosis” involves numerous lesions, and in some instances, poroma may precede its malignant counterpart, porocarcinoma. Due to the risk of malignant transformation, complete excision with narrow margins of normal tissue is recommended to prevent recurrence.

1.4. Cylindroma: Cylindroma is an uncommon adnexal neoplasm, initially thought to be of apocrine origin but now believed to stem from a pluripotent stem cell in the folliculosebaceous-apocrine unit. Typically found on the scalp, face, ears, or trunk, cylindroma can appear as solitary or multiple asymptomatic, slow-growing tumors with a dome-shaped, smooth nodule presentation. Familial cylindromatosis and Brooke-Spiegler syndrome are associated with multiple cylindormas, which may become disfiguring “turban tumors.” Brooke-Spiegler syndrome is marked by diverse skin appendage tumors, including cylindroma, spiradenoma, and trichoepithelioma, though not all tumors necessarily occur in the same individual. Additionally, reports include occurrences carcinomas in the parotid and submandibular glands. Management involves screening for salivary gland tumors in syndromic cases and considering treatment for cosmetic reasons or functional impairment.

1.5.Spiradenoma: Spiradenoma, previously known as “eccrine spiradenoma,” is a rare and benign sweat gland tumor, often causing tenderness or pain upon palpation. Solitary occurrences may be sporadic, while multiple spiradenomas are typically familial, especially in Brooke-Spiegler syndrome. Occurring in early adulthood, these tumors, typically found on the trunk and proximal extremities, present as pinkish or bluish firm papules or nodules. Painful spiradenomas may be mistaken for other cutaneous tumors. Malignant transformation into spiradenocarcinoma is rare but should be considered if there is rapid growth, color changes, or ulceration.

1.6. Syringocystadenoma Papilliferum: Syringocystadenoma papilliferum is an uncommon benign tumor of the apocrine glands, exhibiting varied clinical presentations. Primary lesions may appear at birth or in childhood, while those arising on nevus sebaceus are more common in young adults. Found mainly on the scalp and face, the tumors may also occur on the trunk, extremities, and genitalia. These irregularly shaped tumors, ranging from 0.5 to 4 cm, can be skin-colored, grey, pink,

red, or brown, with a smooth or hyperkeratotic surface. While most lesions are asymptomatic, pruritus in some cases can lead to excoriations, superficial ulcerations, and bleeding. Due to the risk of malignant transformation, removal of lesions through excision is recommended as the primary therapeutic choice.

2. Hair Follicle Tumors

2.1. Trichoblastoma: Trichoblastoma is a rare, usually asymptomatic, benign tumor with hair follicle differentiation, typically presenting as a solitary nodule on the scalp or neck, often associated with nevus sebaceus. Distinguishing it from nonulcerated nodular basal cell carcinoma requires histologic examination. Although rare cases of malignant transformation, known as "trichoblastic carcinoma," have been reported, they are considered basal cell carcinomas from the outset. Excision is the preferred therapeutic approach.(4)

2.2. Trichilemmoma: Trichilemmoma is a rare hair follicle tumor, usually appearing in adulthood as solitary or multiple facial lesions. Solitary lesions are slow-growing, flesh-colored, flat-topped or hyperkeratotic papules or nodules, while multiple lesions may indicate Cowden syndrome, associated with internal malignancies. Trichilemmomas may also occur secondarily on nevus sebaceus. In Cowden syndrome, trichilemmomas often appear on the head and neck

2.3. Pilomatricoma (Calcifying Epithelioma of Malherbe): Pilomatricoma is a common, benign hair follicle tumor often found in childhood or adolescence. It appears as a deep-seated nodule with a firm consistency, sometimes showing a faint color. Commonly found on the face, neck, and upper limbs, multiple lesions may be associated with certain syndromes: including myotonic dystrophy and Rubinstein-Taybi syndrome. Occasionally, rupture of the tumor may lead to the extrusion of the calcified material. While typically stable, some may undergo malignant transformation, leading to pilomatrix carcinoma.

3. Tumors of Sebaceous Glands

3.1. Senile Sebaceous Hyperplasia: Senile sebaceous hyperplasia is a common benign skin condition characterized by enlarged sebaceous glands, typically occurring after the fourth decade. It is often linked to chronic sun exposure and more prevalent in transplant recipients on cyclosporine. The lesions, mainly found on the face, present as flesh-colored or yellowish papules with central umbilication. While generally asymptomatic, they can pose a cosmetic concern.

3.2. Sebaceous Adenoma and Sebaceous Epithelioma: Sebaceous adenoma is a rare benign tumor that can occur as a solitary sporadic lesion in the elderly or, more commonly, as part of Muir-Torre syndrome, associated with multiple skin tumors and visceral malignancies. The sporadic tumors are typically found on the head and neck, especially the eyelids and nose, while Muir-Torre syndrome lesions affect the trunk and extremities. Sebaceous adenoma appears as a yellow papule or nodule, and histopathological examination is essential for diagnosis. It is important to differentiate it from other skin conditions, such as basal cell carcinoma. Sebaceous epithelioma, another sebaceous gland neoplasm, poses diagnostic challenges. Muir-Torre syndrome evaluation is crucial for patients with sebaceous adenoma, sebaceous epithelioma, or sebaceous carcinoma, as it is associated with MSH2, MLH1, or MSHG gene mutations and increased risk of visceral malignancies.

4. Tumors of Smooth Muscles of Skin

4.1 Leiomyoma: Cutaneous leiomyoma is a rare benign tumor of smooth muscles that may occur sporadically or within a familial context. Three subtypes are classified based on muscle origin: piloleiomyoma, genital (dartoic) leiomyoma, and angioleiomyoma. Piloleiomyoma, arising from the arrector pili muscle, commonly appears on the upper trunk, neck, and extremities, causing pain or paresthesia triggered by various stimuli. Angioleiomyoma, often painful, manifests as a firm plaque on the lower limbs. Leiomyomas can be associated with syndromes like Reed syndrome, where multiple piloleiomyomas co-occur with uterine leiomyomas. The hereditary leiomyomatosis and renal cell cancer (HLRCC) syndrome involve cutaneous leiomyomas, uterine leiomyomas, and renal cell carcinoma.

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SKIN APPENDAGE INVOLVEMENT IN MELANOMA

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The skin appendages are epidermal and dermal-derived structures that complement the functions of the skin. Hair, nails, sweat glands, and sebaceous glands are adnexal structures that play a role in UV protection, thermoregulation, fluid and electrolyte balance, and protection from physical injury. Involvement of skin appendages by neoplastic or inflammatory cells can be defined as adnexotropism.

Melanoma, the most malignant skin tumor, is characterized by significant histologic and clinical diversity. It is classified according to its morphological features, i.e., the distribution pattern of malignant melanocytes across the epidermis and the dermis (1). Melanoma cells can extend into the hair follicles, a feature called folliculotropism.

A proposed classification of follicular involvement by melanoma cells includes primary follicular melanoma, melanoma with folliculotropism, and invasive melanoma arising from melanoma in situ with folliculotropism (2). Most cases with follicular melanoma involvement are not primary follicular but exhibit follicular invasion by malignant melanocytes after epidermal involvement. This entity can be defined as melanoma with folliculotropism. This is especially common in head and neck melanomas (1) and lentigo maligna (3). Primary follicular melanoma is an extremely rare entity, with few cases reported to date. Its clinical appearance is usually not suspicious for melanoma, and it may mimic a comedo, a pigmented cyst, or a seborrheic keratosis (4, 5). Folliculotropic cutaneous metastases of melanoma may also occur, although rarely, and in most cases described so far, the primary tumor also showed folliculotropism. Folliculotropic metastatic melanoma and follicular malignant melanoma cannot be distinguished histologically (6).

Another skin appendage that may be primarily involved in melanoma is the nail. Subungual melanoma, a variant of acral lentiginous melanoma, is a melanoma subtype that arises from the nail apparatus. Unlike other melanoma subtypes, subungual melanoma is not related to sun exposure. It is rare, comprising about 3% of all melanomas. It usually presents as a black, vertical band on a nail plate (longitudinal melanonychia). The band widens proximally and may be wider than 3 mm. Nail plate dystrophy and Hutchinson sign may accompany (7).

Syringotropic melanoma is defined as melanoma spreading within the eccrine apparatus into the reticular dermis and/or subcutaneous tissue deeper than any (if present) associated invasive melanoma. This rare entity was relatively recently described (8). Since palms and soles lack hair follicles but contain a considerable number of eccrine glands, syringotropism seems to be a feature of mainly acral lentiginous melanoma (9). However, it may also be seen in melanomas in other skin sites (8).

The effect of adnexotropism on the prognosis of melanoma is unclear. There are studies showing that periadnexal extension does not worsen clinical outcomes (10). Some authors advocate that the depth of the adnexal involvement may upstage the primary tumor, leading to unnecessary sentinel lymph node biopsies. Thus, in case of folliculotropism or syringotropism, measuring the Breslow depth from the inner layer of the outer root sheath epithelium or the inner luminal surface of the sweat glands is recommended (11).

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SKIN APPENDAGE INVOLVEMENT IN MYCOSIS FUNGOIDES

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The skin appendages are epidermal and dermal-derived structures that complement the functions of the skin. Hair, nails, sweat glands, and sebaceous glands are adnexal structures that play a role in UV protection, thermoregulation, fluid and electrolyte balance, and protection from physical injury. Apart from having their own dermatological disorders and tumors, they may be involved in several inflammatory and neoplastic disorders.

Mycosis fungoides (MF) is the most common primary cutaneous T-cell lymphoma, and it has adnexotropic variants. Although adnexotropism was previously considered as a rare histopathological finding in MF, more recent studies show that it is more prevalent than recognized (1).

The 2018 update of the World Health Organization–European Organization for Research and Treatment of Cancer (WHO-EORTC) classification for primary cutaneous lymphomas describes three MF variants including follicular MF (FMF) (2). FMF is the most frequent MF variant constituting about 10% of all MF cases and has distinct clinicopathological features (3). The epidermis is usually spared in this entity, and the malignant lymphocytes infiltrate the hair follicles. Mucin deposition in the follicular epithelium may accompany the atypical lymphocytes in most cases, which makes differentiation from follicular mucinosis challenging (4).

Follicular MF exhibits a male predominance, with a mean age of onset of 46 to 59 years (5). The disease has a variable clinical spectrum. Alopecia is a typical feature of FMF, and loss of the lateral parts of eyebrows, namely the Omnibus phenomenon, may be an early clue to diagnosis. Other lesions may range from follicular papules to erythematous plaques with follicular accentuation, to acneiform (with cysts and comedones) or rosacea-like lesions. FMF may also present with multiple milia-like lesions (5). Isolated sebaceous gland involvement by atypical lymphocytes of MF has not been reported, but the presence of acneiform lesions may be a hint to the infiltration of sebaceous glands.

For a longtime, FMF was considered an MF variant with an unfavorable prognosis, similar to tumor stage MF (2). Recently however, studies have shown that not all patients with FMF exhibit such a bad prognosis (6). Thus, the disease is now considered to have an early/indolent and an advanced/aggressive variant (5).

Another adnexotropic variant of MF, although not recognized as a distinct entity by the 2018 update of the WHO-EORTC classification, is syringotropic MF. It is characterized by the involvement of the eccrine glands with syringometaplasia (7). Its clinical presentation is similar to that of FMF, with alopecic patches or erythematous plaques with follicular papules, even comedones. Although epidermal and follicular involvement may accompany syringotropism (7), some authors consider syringotropic MF as a distinct entity with a more favourable prognosis than syringotropic MF (8).

Nails may also be involved in MF, although histological involvement of the nail bed or matrix has been sparsely reported in the literature (9). Onychodystrophy of all 20 nails is an expected finding in erythrodermic MF, however, involvement in one or few nails may occur even in tumor stage or early disease (10, 11). Nail changes reported include onycholysis, onychomadesis, trachyonychia, subungual hyperkeratosis, thickening of the nail plate, nail discoloration, and pterygium formation (12).

To conclude, since skin appendage involvement in MF may affect the prognosis and the treatment options, performing a thorough examination of the entire skin is necessary in these patients.

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DIAGNOSIS AND TREATMENT OF LENTIGO MALIGNA (MELANOMA)

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Lentigo maligna (LM) melanoma is a histological subtype of melanoma mostly developing in elderly patients with lighter skintypes and is related to chronic sun damage(1). Diagnosis and treatment can be challenging due to the location and often large size of these lesions. Punch biopsies are often used for initial diagnosis and an underestimation of the Breslow thickness is easily made. On the other hand the relative survival of patients with lentigo maligna is not impaired as compared with (age corrected) normal population(2).

Surgical management remains the first choice of treatment, especially because an invasive component is often missed due to sampling error. Nevertheless local recurrences are more frequent in LM, but appear not to have an impact on survival. Management with non-surgical approaches have been described and can be used safe and effective in selected patients. Especially in older patients with large facial non-invasive LM a more conservative approach is feasible. Progression to an invasive (LMM) is slow and appears to be around 2% in 25 years(2).

We studies a large group of patients with LM melanoma of the head and neck area and have experience in the application of longterm imiquimod for selected cases. Confocal microscopy could be an effective tool to investigate potential progression to melanoma in a non-invasive method(3). Results and limitations will be discussed.

Prognosis appears not to be different between LMM and other types of melanoma when corrected for age and T-stage(4). Possibly immunotherapy could be more effective in chronic sun damage induced melanoma due to the high mutational burden, but prospective trials have not been performed.

In conclusion: lentigo maligna melanoma (melanoma) incidence is rising and is mostly diagnosed in fair skin elderly persons with chronic sun damage. Treatment should be weighed with the impact of (often large) surgical procedures, taking in account that this group consists of mostly elderly patients with a good prognosis.

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POIKILODERMATOUS MYCOSIS FUNGOIDES: CLINICAL CASE

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Poikilodermatous mycosis fungoides (MF) is a rare distinct clinical variant of cutaneous T-cell lymphoma, formerly referred to as poikiloderma vasculare atrophicans or parapsoriasis variegata. Mycosis fungoides (MF) is a malignant neoplasm of T-lymphocyte origin, most commonly memory CD4+ T-cells [1–3].

Apart from classic form, there are poikilodermatous and erythrodermic variants (the latter should not be confused with Sézary's syndrome). There are wide range of rare atypical presentations including hypo- and hyperpigmented, verrucous, hyperkeratotic, follicular, lichenoid papular, palmoplantar psoriasiform, granulomatous, vesicular, bullous, and pustular variants, which have been described in the literature [1]. These are clinically unusual cases that run a similar course to that of classic MF. These are clinically unusual cases that run a similar course to that of classic MF were described as a complex dermatologic disease characterized by telangiectasia, pigmentation, and atrophy, were termed poikiloderma vasculare atrophicans (PVA). Later, it was believed that PVA represented a stage or an outcome of various dermatoses, such as mycosis fungoides, parapsoriasis, dermatomyositis, scleroderma, lupus erythematosus, lichen ruber planus, genodermatoses, and so on. Nowadays poikiloderma vasculare atrophicans is recognized as a clinical variant of patch stage MF [4–6]; and poikilodermatous findings on non-sun-exposed areas should be considered MF until proven otherwise.

The first manifestation of poikilodermatous MF usually occurs at an earlier age than that of classic MF, and a male predominance was reported for both forms.

Histopathology of poikilodermatous lesions discloses an atypical T-cell infiltrate in the papillary dermis, often with evident epidermotropism [1]. However, Pautrier microabscesses are not as common in comparison to classic MF. Melanophages and melanin incontinence are also observed, along with ectasia of the superficial dermal vessels and epidermal atrophy.

Immunohistological staining commonly shows either a prevalence of the CD4+, CD8− pattern or CD8+, CD4− immunophenotype, which is more often seen in hypopigmented variants of MF [7].

We report a 29-year-old patient with generalized poikilodermatous skin lesions, whose diagnosis of mycosis fungoides was made only a few years after the onset of his disease due to its bizarre clinical behavior and a natural reluctance to diagnose this disease in children and adolescents.

The first eruption appeared on his skin at the age of eleven. At that time there were some few separate well-defined asymptomatic hypopigmented patches on his chest and left shoulder, which resolved spontaneously without treatment. Several different diagnoses have been declared for this patient: vitiligo, morphea (after transformation into hyperpigmented plaques with slight atrophy), lichen ruber planus (two years earlier according to the histopathological findings, although immunohistological studies were not performed at that time). Lately the whole surface of the skin was very thin, crinkled and scaly, and had characteristic wrinkled, "cigarette-paper" appearance. The skin affections had diffuse distribution with only small several islands of uninvolved skin on the trunk and low extremities. Skin lesions presented a confluent poikilodermatous patches and plaques with mottled hyper- and hypopigmentation, atrophy and teleangiectases. Almost all of these patches, especially those located on the thighs and the lateral aspects of the trunk, were also remarkable for the net-like distributed plane lichenoid papules. On the anterior chest and in the paraumbilical area a few ill-defined erythematous patches could be observed. They were both visibly and palpably slightly infiltrated. The anterior aspects of the shins showed several confluent plaques with grayish-brown tint and evident infiltration.

Taking into consideration the aforementioned features and the past medical history data we were inclined to regard the condition as a rare poikilodermatous form of MF. It was decided to obtain four punch biopsy specimens from representative areas: erythematous patch on the anterior aspect of the chest, typical poikilodermatous patch on the right flank, lichenoid papule on the right thigh and the plaque on the anterior aspect of the left shin respectively. The diagnosis «Poikilodermatous MF» was confirmed by histopathological examination. The immunohistologic studies of all the specimens also revealed the unusual pattern with simultaneous presence of both CD4+ and CD8+. Suspecting misdiagnosing it was decided to reassess the biopsy findings which were received two years earlier with additional sectioning of preserved paraffin blocks. An appraisal of both slides was made. While the first one made three years ago showed the histopathological features of

lichen planus, the second one received by additional sectioning revealed the signs of MF, though they were not apparent.

Conclusions: The variability of atypical clinical presentations of MF and its similarity to the benign inflammatory and noninflammatory skin disorders may become a source of considerable confusion and controversy, challenging a dermatologist to make a nonprecise diagnosis. Multiple biopsies with additional block sectioning and immunohistochemistry may appear essential to reach the genuine diagnosis. Therefore, scrupulous clinicopathological correlation is the absolute necessity.

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AESTHETIC DERMATOLOGY IN PSORIASIS

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Psoriasis is a chronic inflammatory disease of the skin. Psoriasis affects patients' self-confidence and reduces their quality of life. Treatment options include topical therapies, phototherapy, conventional systemic agents (Mtx etc), and biologic agents that target pro-inflammatory cytokines. Aesthetic dermatology also can help physicians with tools for targeting the disease symptoms. Here, medical aesthetic procedures that can be used as adjuvants in the treatment of psoriasis will be discussed.

Emollients are crucial for moisturizing. As an adjuvant to conventional therapy, they minimize the risk of skin infection, preventing mechanical injuries from scratching and prevents transepidermal water loss (1).

As mechanical peeling is contraindicated in patients with psoriasis because of Koebner phenomen. AHA and BHA in low concentrations are a safe and effective alternative for the squamatous lesions (2).

Carboxytherapy, is a method of a percutaneous administration of carbon dioxide which improves tissue perfusion and decrease inflamation (3). Another tool is sonophoresis. This method is based on the use of ultrasounds for transdermal drug delivery enhancement (4).

Botulinum toxin application reduces the symptoms of inverse psoriasis. It may be a good adjunctive therapy for these patients (5).

There are many studies on the effectiveness of PRP, especially in combination or monotherapy, in chronic plaque-type psoriasis. It may be a harmless and good alternative for resistant plaques (6). Also, Nd yag laser (7) and PDL (8) can be used in resistant plaques.

Many studies have shown successful results of the use of exosomes in psoriasis, which is one of the rapidly developing topics in recent years. In psoriasis, exosomes are having a role in the communication between keratinocytes and immune cells (9).

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COSMETIC PROCEDURES IN CONNECTIVE TISSUE DISORDERS

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Connective tissues disorders (CTD) are characterized by variable degree of skin damage including dyspigmentation, telangiectasias, scarring, atrophy and/or alopecia. Especially when the disease is under therapeutic control, the residual damage can be highly cosmetically disfiguring and causes patients significant distress. The popularity of esthetic medicine is growing every year, also among patients with CTD, who often ask for intervention and may use non-medical personnel if not adequately informed. Cosmetic procedures, such as lasers and fillers, botulinum toxins are controversial for the risk of worsening or even trigger the autoimmune inflammation.

Providers currently lack strong evidence on managing skin damage due to the paucity of literature on this topic, the lack of safety guidance and best practice regarding laser parameters, soft tissue augmentation, treatment intervals, for correcting aesthetic deficits caused by autoimmune conditions. Because of this knowledge gap, present lecture provides an overview of what is currently known.

Cosmetic procedures include treatment of hyperpigmentation (laser and camouflage), hypopigmentation (melanocyte grafting and camouflage), scarring (laser, dermabrasion, and camouflage), atrophy (filler, fat transplantation, and flap procedures), and scarring alopecia (hair transplantation, platelet rich plasma injections and camouflage).

Several case series reported an increased incidence of adverse events due to cosmetic procedures, which ranged from temporary erythema and discomfort to disease reactivation and pigmentary changes or granuloma formation. However, most patients expressed satisfaction with the results of the aesthetic procedures performed, and would like to repeat the experience in the future.

Conclusions support the need of more robust investigations to improve cosmetic treatments of disease damage due to connective tissue disorders, supporting patients' need and social distress, to provide medical advices. Patient's perspective and quality of life improvement should be considered and the risk and benefits of cosmetic procedures balanced in the single patients.

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AESTHETIC DERMATOLOGY PROCEDURES IN INFLAMMATORY HAIR DISORDERS

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Healthy men and women generally have 80 000 to 120 000 vital terminal hairs on the scalp. Hair is composed of keratin and is produced in the hair follicles. All hair follicles go through repeated cycles of growth and rest (1). Inflammation plays a significant role in hair follicle function and scalp health, and its presence has been linked to a number of hair disorders, including androgenetic alopecia, scarring alopecia, lichen planus, and fibrosing alopecia.

Inflammation in Scalp Health. Androgenetic alopecia, also known as male or female pattern hair loss, is a common condition characterized by progressive hair thinning and miniaturization of hair follicles. Studies have shown that androgenetic alopecia is associated with increased levels of pro-inflammatory cytokines, such as interleukin-1beta and tumor necrosis factor-alpha, in the scalp (2,3).

LLLT is a very promising noninvasive and nonablative light-based adjunctive technology, which is able to downregulate, at least transitorily, mild inflammatory cascade into the human scalp in vivo by lowering the level of CD69+ T cells infiltrates and AP1 components. The presence of CD69+ T cells in the scalp has previously been reported by Deeth et al. in patients with long-standing extensive alopecia areata (4).

Recently, studies have reported that patients with AA may benefit from PRP therapy. PRP is an autologous concentration of platelets in a small volume of plasma-accelerating circulation, which can be beneficial to hair follicles (5, 6). PRP contains growth factors and has anti-inflammatory properties (7,8). It has been previously shown that PRP has great therapeutic effects in the treatment of lichen sclerosis, maybe due to a reduction of inflammation, which can decrease the activity of the disease (9). Also, PRP has adhesion molecules, which promote cell proliferation and differentiation (10).

Overall, it is clear that inflammation plays a significant role in scalp health and hair disorders, and a number of treatment options, including photobiomodulation, nutritional supplements, and scalp health, have been proposed to combat its effects. Further research is needed to fully understand the underlying mechanisms and to develop more effective treatments and aesthetic procedures such as scalp peeling, Microneedling. .

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TRICKS FOR NOSE AND LIP ELEVATIONS

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The perioral area and nose area can be an important feature to convey femininity, particularly when speaking and smiling. A feminine lip has a shorter distance between the nasal sill and the vermillion border, fullness of the vermillion, and a few millimeters of tooth show with the mouth slightly open. The keys to a good outcome are filler and threads design that respects the natural anatomy, placing the tension of the lift deep to the dermis to take tension off of the skin incision, determining the appropriate amount of lift for the patient's anatomy, and not violating the orbicularis oris and nasal origin

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STEP BY STEP HAIR TRANSPLANTION

Mustafa Tümtürk

Hair transplantation is a surgical procedure that involves the extraction and transplantation of hair follicles from one area of the body, known as the donor area, to the bald or thinning areas, known as the recipient area (1). Hair loss or baldness can have a significant impact on a person's self-esteem and quality of life (2,3). Hair transplantation offers a long-term solution for restoring natural hair growth and improving one's appearance. With the increasing prevalence of hair loss and the growing demand for hair restoration, hair transplant procedures have gained popularity worldwide.

In this presentation, we will take you through the step-by-step process of hair transplantation, from patient selection to post-operative care, providing a comprehensive understanding of this remarkable procedure. The first step involves preparing the donor area, which is usually located at the back or sides of the scalp (4). The hair in this area is genetically resistant to hair loss. The doctor will trim the hair in the donor area to an appropriate length for extraction. Moving on to the second step, once the donor hair has been extracted, the next crucial stage is creating recipient sites. These are the areas on the scalp where the harvested hair follicles will be transplanted. The recipient sites are carefully designed and placed, taking into consideration the patient's hairline, natural hair growth pattern, and aesthetic goals. The size, angle, and density of the sites are meticulously determined to ensure optimal results and a natural-looking hairline. This is the stage where the extracted hair follicles are transplanted into the recipient sites. The follicles are delicately handled and placed into tiny incisions made in the scalp using specialized instruments (5). The placement process requires precision and attention to detail to ensure that the transplanted hair aligns with the patient's existing hair in terms of direction, angle, and density. This meticulous graft placement technique plays a crucial role in achieving a seamless and natural-looking result.

Lastly, but certainly not least, the fourth step involves post-transplant care and recovery. After the hair transplant procedure, it is vital to provide the patient with detailed instructions on how to care for the transplanted area to promote healing and ensure the best possible outcome. This includes guidance on proper hygiene, medication, and lifestyle modifications. Additionally, regular follow-up visits are scheduled to monitor the progress of the transplant and address any concerns or questions the patient may have.

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BOTULINUM TOXIN INJECTIONS FOR HYPERHYDROSIS

Tamer İrfan Kaya

Hyperhidrosis, a condition characterized by excessive sweating beyond the body's thermoregulatory needs, can have significant negative effects on various aspects of life, including physical health, emotional well-being, social interactions, and daily activities. Botulinum toxin injections are commonly employed as a secondary option for treating focal hyperhidrosis following unsuccessful attempts with topical treatments, which has emerged as a safe and effective solution for treating focal hyperhidrosis, a condition characterized by excessive sweating in localized areas such as the underarms, palms, and soles. Botulinum toxin works by blocking the release of the neurotransmitter acetylcholine, which stimulates sweat glands. By inhibiting this neurotransmitter, botulinum toxin temporarily blocks sweat production in the treated area. Compared to topical treatments such as antiperspirants, which may not be effective for everyone and may require frequent reapplication, botulinum toxin injections provide longer-lasting results, usually lasting about 6 months. Moreover, botulinum toxin injections for hyperhidrosis are minimally invasive and can be administered in a doctor's office without the need for invasive surgical procedures, making them a convenient option for many patients. Side effects associated with Botox injections for hyperhidrosis includes injection site pain, bruising, and temporary weakness or paralysis of nearby muscles. This presentation aims to offer insights into the commercially available botulinum toxin formulations and their utility in addressing primary hyperhidrosis. Treatment procedures and techniques, efficacy, duration of effect, safety profile, cost considerations, comparison with other treatments, and future directions will be discussed.

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INSOMNIA-RELATED SKİN DİSEASES

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Skin diseases associated with sleep disorders are common in our clinical practice.

Sleep is a fundamental component of a patient's quality of life. Sleep influences and is influenced by the patient's skin disease, so sometimes it is ignored. It holds significant importance.

Sleep and circadian rhythms are crucial in immune function.

Insomnia is defined as a persistent difficulty with sleep initiation, duration, consolidation, or quality that occurs despite adequate opportunity and circumstances for sleep (1)

Three components imply insomnia: ongoing sleep difficulty, unpleasing sleep environment, and associated daytime dysfunction. Sleep complaints typically include difficulties initiating or maintaining sleep and concerns. Concerns are primarily about lengthy periods of nocturnal wakefulness, insufficient amounts of nocturnal sleep, or poor sleep quality. (1)

Daytime symptoms are fatigue, decreased mood or irritability, general malaise, and cognitive impairment. Individuals who report these sleep-related symptoms in the absence of daytime impairment are not regarded as having an insomnia disorder. (1)

The previous approach to insomnia is that it exists as a primary sleep disorder or arises as a secondary form of sleep disturbance related to an underlying primary psychiatric, medical, or substance abuse disorder. However, many symptoms and associated features of primary and secondary insomnias overlap. (1)

Regardless of whether comorbidities are viewed as potentially sleep disruptive, According to the American Academy of Sleep, there are three types of insomnia: chronic insomnia disorder, short-term insomnia disorder, and other insomnia disorders. (1)

Short-term insomnia, also named adjustment insomnia or acute insomnia, usually presents for less than three months and occurs in response to an identifiable stressor. Stressors can be physical, psychological, psychosocial, or interpersonal. Symptoms usually resolve when the stressor is eliminated or when the individual adapts to the stressor. Occasionally, sleep problems persist and lead to chronic insomnia, which is also related to the development of poor sleep habits during the acute insomnia period. (1)

Chronic insomnia presents with symptoms that occur at least three times per week and persist for at least three months. Presents with night-to-night variability and a waxing and waning course related to psychosocial stressors and psychiatric or medical comorbidities. (1)

Several factors and comorbidities may exacerbate insomnia. Psychological distress such as depression and anxiety plays a vital role, which may lead to ups in various dermatological conditions such as psoriasis, urticaria, and vice versa. The influence of dermatological conditions on psychological distress is also authentic. A deleterious cycle exists among psychological distress, dermatoses, and sleep disorders. (2)

Atopic dermatitis (AD) is a prevalent, chronic inflammatory skin condition. It is associated with sleep disturbances around 47% to 80% of children and 33% to 90% of adults. Sleep disturbances would either manifest as a symptom or act as a trigger for AD flares rather than a comorbidity. (2) Insomnia is the predominant sleep disorder among all, with notable difficulties initiating and maintaining sleep.

Treatment of AD with systemic therapies, such as cyclosporine, dupilumab, and azathioprine, results in substantial reductions in AD lesions and resolution in associated symptoms such as itching and sleep disturbances. (3)

Psoriasis, with its cutaneous manifestations, has a direct impact on sleep. There is a disruption in the skin's thermoregulatory function; therefore, initiating sleep becomes challenging. (4)Psoriasis is not only cutaneous but a multi-systemic inflammatory disorder, thus indirectly leading to sleep issues.

In a comprehensive study involving 62 patients with psoriasis and 52 patients with PsA, assessments were made using various scales; notably, more than 67% of patients with PsA and 52% with psoriasis reported experiencing sleep disturbances and extreme fatigue during the day. (5)

Additionally, insomnia affects a significant proportion of psoriasis patients, ranging from 6% to 45%.(6,7)

Both psoriatic arthritis (PsA) psoriasis and AD contribute to increased fatigue, altered sleep patterns, diminished quality of life, and psychological challenges when compared to the general population. (5,8) Diminish dermatologic patients' quality of life, resulting in workforce loss and an economic burden. (9)

Patients with chronic urticaria commonly encounter itching and burning sensations on their skin. Sleep disturbances caused by urticaria have been documented in over 50% of patients diagnosed with chronic spontaneous urticaria.

Pruritus often impacts individuals with chronic skin conditions, such as eczema, atopic dermatitis, psoriasis, and urticaria. The severity of pruritus can result in disturbances to sleep, behavioral patterns, diminished quality of life, and other psychological dysfunctions, including anxiety. In a prospective study involving over 800 patients, it was observed that moderate to severe pruritus associated with chronic diseases led to disturbances in sleep quality and work productivity, as well as increased levels of depression and anxiety. (10)

Addressing the leading cause of the underlying skin condition can contribute to treating the associated sleep disorder and vice versa. Recognizing the impacts of sleep disturbance, clinicians should note it as a significant comorbidity of skin diseases and provide appropriate treatment to enhance the quality of life for dermatologic patients. Dermatologists, in particular, should prioritize obtaining a detailed patient history when evaluating individuals with chronic skin conditions, and therapeutic interventions should be considered.

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PSYCHO-DERMATOLOGY IN HAIR DISEASES

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Trichopsychodermatology is a relatively new subspecialty of psychodermatology that emphasizes the psychosocial aspects of hair disorders. The changes in hair density or quality often lead to an enormous emotional burden with low self-confidence, impaired quality of life, and even psychological disorders.

Hair plays an important role in social and sexual communication in humans. It is also one of the most important components of an individual's appearance and self-perception. Hair style and appearance is also a sign of one's identity. Therefore, hair loss can have negative effects on self-confidence, body image and self-esteem. That's why at hair disorder consultation services, compared with the general dermatological consultation hours there are disproportionately more patients with biopsychosocial disorders who are often considered "problematic" patients.

When a primary hair disease affects a person's psychological state, treating the hair disease also treats the psychological state.

There are hair disorders that can occur due to primary psychiatric disorders as trichotillomania. (Table 1) These can be hair diseases that are directly seen in primary psychiatric diseases and even help to diagnose them or they may occur due to secondary psychological events such as stress, depression, or anxiety. Sometimes, all these conditions are intertwined.

Trichopsychodermatology in purely psychiatric disorders
Self-Induced Diseases
Trichotillomania: Tearing out the hair.
Trichotemnomania: Hiddenly cutting their own hair
Trichodaknomania/Trichodaknomanie by proxy: Biting off the hair on their own or someone else's arm.
Trichoteiromania: Physical damage to the hair by scratching, rubbing
Rapunzel syndrome: Ingesting the hairs that they pulled, forming trichobezoar extending into small intestine from stomach
Trichorrhizophagia: Eating the roots of the teared hair
Somatoform Diseases
Somatization disorders
Hypochondriac disorder
Body dysmorphic disorder
Trichodynia (somatoform pain disorder)

Table 1: Hair disorders that can occur due to primary psychiatric disorders

People living with alopecia are at a higher risk of developing depression, anxiety, social phobia, a low quality of life, feelings of humiliation, low self-worth, and unattractiveness. Emotional stress and reduced self-esteem may alter patients' social interactions, daily activities, and psychosocial state.

CHEMSEX AND STDS

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Chemsex is usually (though, not completely consistently) defined as the intentional use of illicit substances during sex to enhance pleasure (or to make an individual feel like that?). While the definition varies, these substances often include gamma-hydroxybutyrate (GHB), mephedrone and crystal meth. Men often report increased pleasure, intimacy and a heightened sense of confidence as motivations for chemsex.

Chemsex may increase transmission of HIV and other STIs such as gonococcal and chlamydial infections, hepatitis C, HPV-genital infections etc. Pre-exposure prophylaxis (PrEP) is highly effective in preventing HIV transmission, providing also an important prevention tool for those who practise chemsex. However, it does not prevent acquisition of other STIs, especially if condoms have not been used. This effect was stronger for people reporting multiple chemsex substances. Accordingly, within the context of STI transmission, chemsex has been associated with condomless anal sex and increased number of partners—behaviours associated with transmission of HIV and other STIs. Due to the demonstrated HIV-acquisition risk associated with chemsex, recent methamphetamine use was included in the HIV Incidence Risk Index for MSM screening index for PrEP, thus, chemsex was included as an eligibility criterium for PrEP in some countries.

The high STIs incidence in people who practise chemsex highlights the need for integral approach that addresses the complex strategy of the (still) unmet prevention needs for this particular population.

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SOMATIZATION AND CONVERSION DISORDERS IN DERMATOLOGY

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Somatization disorders involve the manifestation of psychological distress through physical symptoms. In dermatology, somatization can present as various skin-related complaints that may not have a clear organic cause. It's important to note that the term "somatization disorder" has been replaced in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) by the category of "somatic symptom disorder" and "illness anxiety disorder." These changes reflect a more nuanced understanding of how psychological factors contribute to physical symptoms.

In dermatology, somatic symptom disorder may present as:

1. **Psychogenic Itch:** Intense itching without an apparent dermatological cause. Itching can be exacerbated by stress and emotional factors.
2. **Psychogenic Excoriation (Skin Picking Disorder):** Repetitive picking at the skin, resulting in skin lesions. This behavior may be related to stress or emotional distress.
3. **Dermatitis Artefacta:** Self-inflicted skin lesions without a clear medical explanation. Patients may deny causing the injuries intentionally, and the lesions may have unusual shapes or patterns.
4. **Psychogenic Alopecia:** Hair loss that cannot be explained by a known dermatological condition. Stress and emotional factors may contribute to the development or worsening of hair loss.
5. **Factitious Dermatitis:** Deliberate manipulation or aggravation of skin conditions to gain attention or sympathy. Patients may apply irritants, induce trauma, or interfere with wound healing.

Conversion disorder, now referred to as functional neurological symptom disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), is a condition where individuals experience neurological symptoms that cannot be attributed to a known neurological, dermatological, or medical condition. Although conversion disorder itself may not manifest directly as a dermatological condition, psychological factors can contribute to or exacerbate skin disorders. In some cases, individuals with conversion disorder may exhibit symptoms that involve the skin, such as numbness, tingling, or paralysis, which can affect specific areas of the body. These symptoms can be complex and may not follow the typical patterns associated with dermatological or neurological conditions.

Dermatologists, in collaboration with neurologists and mental health professionals, may play a role in evaluating and managing cases where psychological factors influence or present as skin-related symptoms. Management of somatic symptom disorders and conversion disorders in dermatology often involves a multidisciplinary approach, including collaboration between dermatologists, psychiatrists, and psychologists. Treatment may include psychotherapeutic interventions such as Cognitive-behavioral therapy (CBT) which can help patients identify and address underlying emotional factors contributing to their symptoms. In some cases, medications such as selective serotonin reuptake inhibitors or low dose benzodiazepines may be prescribed to manage underlying psychological symptoms. Providing information about the mind-body connection and helping patients understand the role of stress and emotions in their symptoms can be beneficial. Offering compassionate and supportive care can help build trust between the patient and the dermatologists. It is essential for healthcare professionals to approach patients with somatic symptom disorders and conversion disorders in a nonjudgmental and empathetic manner. Understanding the psychological aspects of these conditions is crucial for effective management and improving the overall well-being of the patient.

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TITLE: MANY FACES OF BCC, DERMOSCOPY AND HISTOLOGY CORRELATIONS

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Basal cell carcinoma (BCC) is the most common cancer in humans. It arises on sun-damaged skin and rarely develops on the mucous membranes or palms and soles. A slow-growing tumor for which metastases are extremely rare.

More than 26 different subtypes of BCC described in the literature, but the more common clinicopathologic types include: nodular, superficial, morpheaform, infiltrative, and fibroepithelial. Combinations of these types can occur as well, and usually with longer evolution. The newest classification on low, high, and intermediate risk BCC, is based on risk stratification and is much more relevant in our daily practice, helping us proceed with the proper management.

Dermoscopy is the ultimate tool for easy and accurate diagnosis, preoperative margins assessment, and postoperative management of BCC (after non-ablative treatment). Every subtype of BCC has distinctive dermoscopy patern and structures that correlate with certain histology substrates. We are demonstrating the dermoscopy hallmarks of BCC in different histological subtypes. Sometimes these clues can be easily recognized even in lesions with less than 3mm of diameter. On the other hand many tumors, especially the adnexal ones can be easily mistaken for a BCC, a true mimickers.

Although rarely fatal, BCC can be highly destructive and disfiguring if treatment is inadequate or delayed.

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DERMOSCOPIC ANALYSIS FOR SCALP

Asmahane Souissi

Trichoscopy is a simple, noninvasive tool that can be performed using a handheld or digital dermatoscope. It provides useful diagnostic information for scalp disorders by enabling the visualization of distinctive features. We present a dermoscopic analysis of the most common hair loss disorders seen in clinical practice. Dermatologists should be familiar with these helpful findings, as they can significantly aid the diagnosis and follow-up of numerous conditions such as androgenetic alopecia, alopecia areata, trichotillomania, tinea capitis and frontal fibrosing alopecia.

VASCULAR PATTERNS FOR PERIUNGUAL AREA

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Onychoscopy means examining the nail unit using a dermatoscope (1). It is practical and non-invasive. Nail dermoscopy was initially used only in the assessment of nail pigmentation, nowadays, it is used in many areas (2). The nail plate, hyponychium, distal end of the nail plate, proximal nail fold, nail bed and matrix (intraoperative dermoscopy), and periungual area are the areas examined in onychoscopy (3). At lower magnification (×10–30), the nail plate structure and under-nail contents are visible. At higher magnification (×70–100) detailed capillary architecture can be visualized (4).

In nail psoriasis, characteristic nail bed features include spherical, dilated blood vessels surrounded by a prominent halo, surrounded by an erythematous border (5). Red lunula and splinter hemorrhages may be seen in the lichen nail (5).

Periungual warts contain black dots due to dilated and thrombosed vessels within the keratotic lesion. Glomus tumors contain red-violet patch, erythronychia. Multiple red lacunae, hairpin-like glomerular vessels, flower and leaf-like polymorphous vein patterns, lacuna-like structures, and frog egg-like appearance are findings seen in eccrine poromas (6).

Glomerular vessels and scaly squam are detected in Bowen's disease. In connective tissue diseases; rare dilated capillaries, and rare bleeding are detected as early changes, often dilated capillaries, and frequent bleeding are detected in active disease, and irregular expansion, serious loss of capillaries, and avascular areas are detected in late-stage disease (7).

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ECCRINE CLUES IN MELANOMA

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Dermatoscopic assessment of facial melanoma often reveals hyperpigmented perifollicular circles, that are suggestive of lentiginous spread of malignant melanocytes down the hair sheath, below the level of dermal-epidermal junction [1,2]. In acral melanoma, grey circles of smaller diameter present atop the ridges indicate the presence of melanoma nests extending along the eccrine ducts [3].

Eccrine sweat glands, involved in thermoregulation, are widely distributed over almost the entire surface of the skin. In a recent study, the presence of peripheral hyperpigmented eccrine microcircles (pHMs) in pigmented and hypopigmented lesions at non-acral, non-facial sites was found to be indicative of melanoma, regardless of the presence of classic dermatoscopic regression structures (such as grey dots, blue-white structureless areas, and pink-white structureless areas). HMs can be distributed in a number of ways: isolated (not connected to any structure), neighbouring the hair follicle opening, or located within the angulated lines or/and interconnecting them. The reported structure was found to be a very strong clue for melanoma, with fair to good interobserver agreement. Notably, pHMs were observed significantly more often in melanomas on sun-damaged skin, particularly on the upper extremities and the posterior torso [4].

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WHA PUBLISHING

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SCARRING ALOPECIA TRANSPLANTATION

Roxanna Sadoughifar

Abstract:

Cicatricial alopecias (CAs) are often dubbed “trichological emergencies” due to their rapid progression and the potential for permanent hair loss. The pathogenesis, disease progression, and prognosis of CA remain poorly understood, leading to a lack of consensus regarding treatment. It is imperative to promptly diagnose and implement Prompt intervention protocols in managing scarring alopecia, which can manifest as primary, secondary, or hereditary developmental defects.

Primary cicatricial alopecia (PCA) results in irreversible hair loss within affected areas of the scalp, where inflammatory cells specifically target and destroy stem cells located in the bulge area of hair follicles. Conversely, in secondary CA, hair follicles incur damage due to secondary destructive processes. Hair transplantation (HT) emerges as a viable option for managing CA, particularly in cases of secondary CA when compared to primary CA.

In primary CA, patients must undergo careful observation to ensure complete disease stability before considering HT, which typically occurs over a period of 2-5 years. Comprehensive counseling is essential, particularly regarding potential negative outcomes such as the risk of reactivation following HT, particularly notable in Frontal Fibrosing Alopecia (FFA) and Lichen Planopilaris (LPP). In cases of primary CA, medical therapy should persist even after hair surgery.

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ORAL PRESENTATIONS

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OP-02 [Acne and Related Disorders, Hidradenitis Suppurativa]

Isotretinoin induced creatine phosphokinase elevations: clinical significance and comorbidities

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Introduction&OBJECTIVES: Isotretinoin is a valuable oral therapy for moderate to severe or recalcitrant acne. Nearly 44% of patients on isotretinoin have one elevated creatine kinase (CK) value during the treatment.1 Elevated CK is considered supra-normal in male sex, darker skin types or regular athletic activity.2 Beyond the CK values 1,000U/L, there is concern for rhabdomyolysis.1 Latest acne treatment guideline recommends only the monitorizastion of liver functions, lipid profile and β-hcg values during oral isotretinoin treatment.3 Our study aimed to examine the frequency and severity of hyperCKemia in patients receiving oral isotretinoin. Patients&METHOD: All patients who were prescribed oral isotretinoin for acne in the outpatient clinic between 2021-2023 were included. In our practice we monitored hemogram, liver functions, CK, lipids and β-hcg at baseline and monthly. Adequate oral hydration and reduction of physical activity were recommended. During follow-up, patients with elevated CK values were identified. RESULTS: A total of 165 patients, 125 women and 40 men, were included. Ten of these patients were found to have CK outside the normal range during their follow-up (Table 1). Four of them were females (3,2% of females) and 6 of them were males (15% of males). Myalgia was not present in any patient. There was no history of intramuscular injection or medication. In 4 of the male patients, CK values were x5 times/1000 U/L and above. Three of them were engaged in moderate school sports activity. Hospitalization and intravenous (iv) fluid electrolyte support were required in 3 patients(50%). With iv hydration and rest, CK values returned to normal within 7-14 days. They were later discharged in good health.

DISCUSSION: The significance of these abnormalities in CK by isotretinoin is uncertain. CK elevations greater than five times normal accompanied by muscle pain, fatigue, and weakness can be a sign of rhabdomyolysis.4 CK monitoring is not routinely recommended unless there are symptoms.5 However, rhabdomylosis may be underrecognised.1 When CK elevation is detected, it is necessary to take a break from the medication and follow up with hydration to avoid rhabdomyolysis. In our patients, myalgia was not an indicator, but they had marked CK elevations and liver function test abnormalities. Currently, exercise is not a contraindication to isotretinoin therapy. In a predisposed individual, there may be a possible synergy between exercise and isotretinoin on CK elevations.1 That is, some patients may benefit from baseline and intermittent CK evaluation. In our study, all three of the patients with marked elevation were males. Being a young active man can be an indication for CK monitoring, and adequate oral hydration and exercise restriction recommendation. Further research is necessary to determine the population that would benefit from routine CK monitoring.

Keywords: creatine phosphokinase, isotretinoin, rhabdomyolysis, acne

Table 1

Patient #	Gender	Age	Dosage (mg/day)	End of the # month	AST, ALT*	Excercise	Symptom**	Internation	Max CK***
1	M	17	20	1	x5, x2,5	moderate	-	yes	9012
2	F	24	10	1	-	-	-	-	304
3	M	20	40	2	x5, x3	moderate	-	yes	9626
4	F	18	40	3	-	-	-	-	444
5	F	36	40	2	-	moderate	-	-	290
6	M	16	40	2	-	-	-	-	1450
7	F	21	40	1	-	-	-	-	434
8	M	16	40	3	-	-	-	-	573
9	M	22	10	1	-	-	-	-	642
10	M	20	40	3	x8, x3	moderate	-	yes	10233

*Patients with hyperCKemia * Aspartate aminotransferase, Alanine aminotransferase (x fold increase) ** Myalgia or other ***Maximum creatine phosphokinase values (U/L)*

OP-03 [Psoriasis]

Retrospective analysis of consultation flow of Psoriasis patients: The importance of holistic approach

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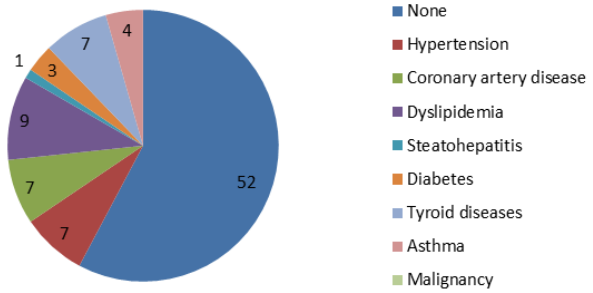
BACKGROUND: Psoriasis is a chronic inflammatory skin disease that is strongly associated with the clinical features of the metabolic syndrome (MetS), including obesity, hypertension, dyslipidemia, insulin resistance, nonalcoholic fatty liver disease and cardiovascular events. The association of psoriasis with MetS is clinically important as it influences the prognosis, life quality and treatment choices. AIM: In this study, we aimed to evaluate demographic and clinical profile of the patients and the content of consultations during psoriasis management. METHODS: This retrospective single-center study was conducted between September 2021 and September 2022 at Denizli State Hospital Dermatology Clinic. A total of 90 patients with psoriasis were included. Clinical details (including age, sex, type of psoriasis, age at diagnosis, consulting department, comorbidities, pathology results, and treatment details) were screened for all patients. Severity of disease was determined by the Psoriasis Area and Severity Index (PASI). RESULTS: 90 patients diagnosed as psoriasis with a mean age of 36.77 ±13.81 were included in this study. %71 (64/90) were female and %29 (26/90) were male, with a mean follow-up duration of 47 months (6-80). %72.2(66) of patients had diagnosed with psoriasis vulgaris, %15.6 (14) of patients had diagnosed with palmoplantar psoriasis, %7.8 (7) of patients had diagnosed with guttate psoriasis, %2.2(n=2) of patients had diagnosed with pustular psoriasis. Isolated nail involvement was observed in 1 patient. %41.1 (n=37) of patients had systemic comorbidities, and %65.6(59) of patients had additional dermatologic disease other than psoriasis. 20 patients from family medicine (22%), 8 patients (9%) from rheumatology, 5 patients (5.6%) from endocrinology, 5 patients (5.6%) from internal medicine, 2 patients from cardiology were consulted to dermatology clinic. Remaining %55.6(50) of psoriasis patients admitted to dermatology clinic themselves. %54.4(49) of patients had no consultation requirement after dermatology evaluation, but %45.6(41) of patients were consulted to other clinics for evaluation of comorbidities (Figure 1). These clinics were rheumatology (26), endocrinology (2), internal medicine (2), cardiology (2), infectious diseases (2) and miscellaneous (7). Mean PASI score of patients were calculated as 5.03 (±3,86). A statistically significant difference was not found between the PASI scores of patients who referred from other departments and patients who admitted to the dermatology clinic (p=0.087). Whereas, a statistically significant difference was found between the PASI values of patients who were consulted to other departments after dermatology evaluation and those who were not (p<0,001). CONCLUSION: The dermatologists should be aware of these associations and a more holistic approach should be taken to manage psoriasis and concomitant comorbid conditions, to decrease the burden of the disease.

Keywords: Psoriasis, Psoriasis Area and Severity Index, Consultation, Metabolic syndrome, Dermatology

Figure 1: Comorbidities of Psoriasis Patients



OP-04 [Cutaneous Oncology]

Assessment of the Quality, Understandability, and Reliability of YouTube Videos as a Source of Information on Skin Self-Examination

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BACKGROUND-AIM: YouTube is increasingly being used for accessing information for both patients and physicians due to numerous medical videos, it contains. However, since there is no regulatory authority for their content, they may contain incorrect or incomplete information. There are many videos about skin self-examination used to screening melanoma and non-melanoma skin cancers. Therefore, we aimed to evaluate the popularity, reliability and quality of YouTube videos regarding skin self-examination. METHODS: In this cross-sectional study, a search on YouTube was conducted using the term of ''skin self-examination''. The most relevant 150 videos were initially screened. Videos in languages other than English, irrelevant (e.g., breast self-examination) ones, were excluded from the study(Figure 1). Data on views, likes, duration and uploading time of the remaining 67 videos were reviewed by two independent dermatologists. The quality, reliability, understandability, and actionability of the videos were evaluated using the Global Quality Scale (GQS), Development of the Patient Education Materials Assessment Tool Audovisiual (PEMAT-A/V) and Modified Quality Criteria for Consumer Health Information (M-DISCERN). RESULTS: A total of 67 videos were observed with a video stream of 5 hours and 14 minutes. The median length of the videos was 3 (0.11-44.1) minutes; the median uploading time was 1460 (30-5475) days; the median number of views was 814 (19-2000000) and the median number of likes was 3 (0-870). There were no difference between the healthcare provider's videos and independent users videos in terms of views, likes, duration minutes, upload time, viewing rate, like rate, GQS score, PEMAT-A/V actionability, PEMAT-A/V understandability and modified DISCERN score. (respectively, p=0.25, p=0.61, p=0.22, p=0.85, p=0.25, p=0.65, p=0.11, p=0.66, p=0.94 and p=0.86). Healthcare providers videos had a statistically significant higher usefulness score than the independent user's (p=0.04). Although, the interaction index of the videos of the independent users were statistically significant higher than the healthcare provider's (p=0.018) (Table 1). Out of all the videos reviewed, the ABCDE rule was mentioned in 42 (63.7%) videos, while the alert findings were in only 23 (34.3%) videos. Necessity of mucosal examination was highlightened in 37 (55.2%) videos, full body scalp examination in 31 (46.3%) videos. The importance of conducting regular self-examinations on a monthly basis was emphasized in 43 (64.2%) videos, annual professional screening advice was emphasized in 26 (38.8) videos. Nevertheless, 38 videos (56.7%) did not provide an explanation for body mapping, and the importance of sun protection was not mentioned in 49 (73.1%) videos(Table 2). CONCLUSION: There is potential to increase public awareness about skin self-examination by utilizing YouTube. Therefore, health care workers should be encouraged to provide educational videos for the patients.

Keywords: Skin self-examination, Skin cancer screening, YouTube, Web-based education

Figure 1

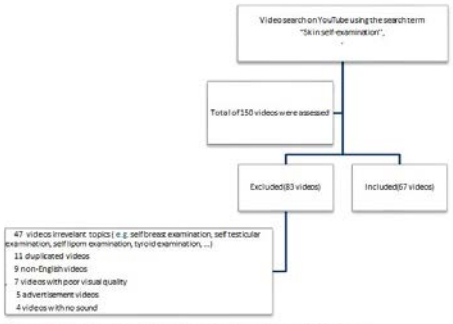

Figure 1: Flowchart showing the inclusion of videos in the study

Table 1

Table 1: Assessment of video characteristics, quality, reliability, understandibility and actionability according to video type and source

Variable (Median, min-max)	Video type: Procedure demonstration (N = 51)	Video type: General Informative (N = 16)	P	Video Source: Healthcare Providers (N = 58)	Video Source: Independent users (N = 9)	P
Views	1400 (40-2000000)	249 (19-122000)	**0.036**	1060 (23-2000000)	325 (19-15000)	0.25
Likes	6 (0-8700)	1.5 (0-568)	**0.037**	3 (0-8700)	4 (0-113)	0.61
Video duration in minutes	3.2 (0.14-14.27)	1.54 (0.11-44.29)	0.134	2.54 (0.11-44,3)	3.48 (0.57-13.34)	0.22
Time after Uploaded (Days)	1825 (30-5475)	1500 (30-5190)	0.87	1460 (30-5475)	1450 (60-3285)	0.85
Viewing rate (View / Day)	0.96 (0.02-1095,9)	0.42 (0.01-153,3)	0.129	0.9 (0.01-1096)	0.008 (0.001-0,5)	0.25
Like rate (Like / Day)	0.003 (0-4.77)	0.0007 (0-3.79)	0.085	0.0017 (0-4.77)	0.0024 (0-48)	0.65
İnteraction Index (Like / View)	0.003 (0-0.025)	0.002 (0-0.052)	0.704	0.0024 (0-0.027)	0.0082 (0-0.053)	**0.04**
Global Quality Score	3 (1-5)	1 (1-3)	**0.002**	2 (1-5)	1 (1-4)	0.11
Usefulness	2 (1-3)	1 (1-2)	**0.001**	2 (1-3)	1 (1-2)	**0.018**
PEMAT-A/V						
PEMAT-A/V actionability	75(25-100)	67(33-75)	**0.037**	67(33-100)	75(33-100)	0.66
PEMAT-A/V understandibility	75(33-100)	67(0-100)	**0.008**	75(33-100)	50(33-100)	0.94
Modified DISCERN	4(2-5)	3(1-4)	0.062	4(2-5)	4(2-4)	0.86

Table 2

Table 2: Evaluation of details about skin self-examination

	Yes n (%)	No n (%)
ABCDE rule	42 (63,7)	25 (37,3)
Alert finding: Bleeding, itching and "Ugly duckling" sign	23 (34,3)	44 (65,6)
Mucosal examination	37 (55,2)	30 (44,8)
Full body examination	31 (46,3)	36 (53,8)
Repeat once montly	43 (64,2)	24 (35,8)
Body mapping	29 (43,3)	38 (56,7)
Sun protection	18 (26,9)	49 (73,1)
Annual professional screening advise	26 (38,8)	41 (61,2)

OP-06 [Systemic Treatment]

Effects of Isotretinoin Treatment on Menstrual Cycle in Acne Patients

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Introduction&OBJECTIVES: Isotretinoin is a vitamin A derivative which has been used as a primary treatment of moderate to severe nodulocystic acne. In addition to its potent therapeutic effects, isotretinoin also carries potential side effects. The primary caution in isotretinoin use is its teratogenicity, necessitating the use of effective contraceptives during and for three months after therapy. Another important and undersearched impact of isotretinoin is on the ovarian reserve, sex hormones, and the menstrual cycle irregularities which cause severe anxiety in this population with isotretinoin treatment. However, further evaluation is needed regarding its effect on the menstrual cycle. In this context, we conducted a retrospective study to investigate changes in women's menstrual periods undergoing isotretinoin treatment.

Materials & METHODS: 122 female patients with acne receiving isotretinoin treatment were evaluated in the study. Patients who described recent stressful life events, who reported strict diet control, who had less than a year from menarche, who used hormonal contraceptive methods during or within 6 months before treatment onset and patients with BMI more than 30 were excluded from the study. In the group with regular menses, patients whose TSH, FSH, LH, testosterone, prolactin, estrogen levels and sonographic findings were not normal were excluded.

RESULTS: Total of 119 patients were included to the study. Before treatment, 95 (79.8%) had regular menses, 24 (20.2%) had irregular menses 66.3% (63 patients) of whose menses were regular before treatment started to have irregular menses during treatment, whereas 41.7% (10 patients) of whose menses were irregular before treatment started to have regular menses during treatment but there was no statistical difference. The group of patients whose menses were regular before treatment was evaluated; 31.6% remained to have regular menses, 45.3% started to have less frequent menses, 18.9% started to have more frequent menses, 2.1% started to have prolonged menstrual bleeding, and 2.1% started to have shorter menstrual bleeding during treatment. Only the group of patients whose menses were regular before treatment (95 patients) was evaluated, and then divided into two groups group A (remained to have regular menses during treatment), and group B (developed any type of menstrual irregularity during treatment). There was no statistical difference between

mean age, mean age of onset of isotretinoin, and mean age of onset for menstruation or mean duration of menstrual bleeding before treatment. Hirsutism during treatment was statistically more prevalent in group B.

CONCLUSIONS: In our study, we evaluated the effects of isotretinoin treatment on the menstrual cycle and found that isotretinoin may trigger menstrual irregularity and hirsutism. The effect of isotretinoin on the pituitary-ovarian axis needs to be clarified in further clinical studies.

Keywords: Isotretinoin, Acne, Menstrual Cycle

OP-08 [Dermatological Surgery]

Merkel cell carcinoma on the nose in a psoriasis patient using cyclosporine for a long time

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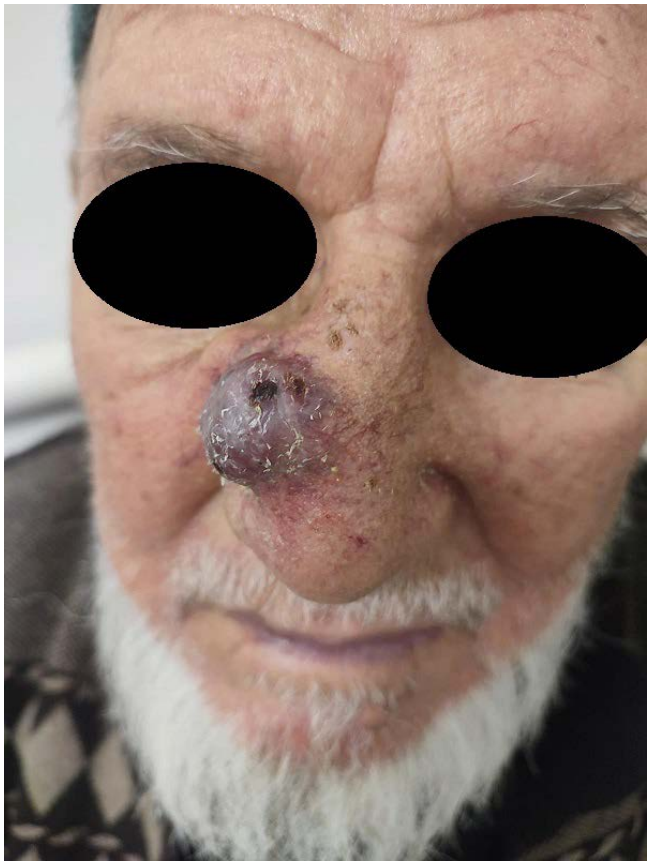
Merkel cell carcinoma (MCC) is a rare and aggressive neuroendocrine skin cancer that has a mortality rate of over one-third. Neuroendocrine markers such as chromogranin A, synaptophysin, and cytokeratin 20 are present in Merkel cell carcinoma cells. Elderly individuals, immunocompromised individuals, patients with hematological neoplasms, and individuals with other skin tumors are vulnerable. MCC carcinogenesis is associated with Merkel cell polyomavirus (MCPyV) clonal integration or chronic exposure to ultraviolet (UV) light. UV exposure could be why MCC patients frequently have a background of other UV-related skin cancers, such as basal cell carcinoma or cutaneous squamous cell carcinoma. Cyclosporine is more closely related to skin cancer because it triggers additional cancer-causing pathways. Cyclosporine downregulates PTEN and stimulates AKT, promoting skin carcinogenesis along with immunosuppression. Calcineurin inhibition increases ATF3, which enhances p53's suppression of cancer cell senescence. Continuous cyclosporine use should not exceed one year, although European guidelines permit it for up to two years. We present an older adult who was 76 years old and had been taking cyclosporine for treatment of his psoriasis for three years. He presented to us with a nodular lesion between his right alar crease and dorsum nasi. There was no familial cancer history. The patient was a retired imam and did not describe any significant increase in sun exposure. After undergoing a biopsy, the biopsy revealed that the patient had Merkel cell carcinoma, and the patient was referred to otolaryngology for evaluation. The patient underwent surgery followed by radiotherapy; however, he experienced recurrence and lung metastasis within three months. The patient passed away within six months of the diagnosis. Merkel cell carcinoma has a poor prognosis. Merkel cell carcinoma frequently occurs on the skin of the head and neck, requiring specific management compared to other body regions. Merkel cell carcinoma of the head and neck is a rare skin cancer that requires specific treatment different from cases occurring in other parts of the body. There is limited research on prognostic factors and survival rates of Merkel cell carcinoma (MCC), particularly in the head and neck area, where outcomes are typically poorer. Long-term use of cyclosporine is not recommended as it makes the patient immunosuppressed, potentially increasing the formation of skin tumors. Individuals with Merkel cell carcinoma who are immunocompromised have a higher risk of cancer-related death and are more likely to experience cancer recurrence. Immunosuppression should be carefully considered when evaluating prognosis and making decisions regarding treatment and monitoring choices.

Keywords: Skin cancer, merkel cell carcinoma, psoriasis, cyclosporine

1



OP-09 [Hair Disorders/Diseases]

A New HLA Susceptibility Haplotype Defined in Three Familial Cases of Frontal Fibrosing Alopecia

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Objectives: Frontal fibrosing alopecia (FFA) is a primary lymphocytic cicatricial alopecia characterized by frontotemporal hairline recession. Since its initial description in 1995, the worldwide incidence of FFA has risen drastically, becoming the most common cicatricial alopecia in recent reports. The etiology of FFA is unknown. Hormonal factors, autoimmunity, and some exogen factors are thought to play a role. There are a few series reporting concordant HLA haplotype between familial cases of FFA. HLA type (DRB1*04,13; DQB1*03:02,06) was found to be identical between a woman with FFA and her daughter with lichen planopilaris. Another study including 13 cases of familial FFA found that most of the patients of that cohort shared HLA-A*33:01; B*14:02; C*08:02. In this presentation, we aim to present a new HLA haplotype concordance found in three sisters with FFA.

Case presentation: Three sisters, aged 62, 60 and, 55, presented with progressive frontotemporal hair loss and lateral eyebrow alopecia (Figure 1,2,3). All patient's symptoms started after menopause and worsened gradually. None of the patients had body hair loss or facial papules. Trichoscopy revealed loss of hair follicular openings in the affected hairline and perifollicular hyperkeratosis for all patients (Figure 4). Histopathologic examinations were compatible with FFA. Haplotype analysis revealed HLA-A*11:01; B*35:01; C*04:01. All patients treated with topical corticosteroids minoxidil and oral doxycycline, without any benefits and patients declined any further treatment.

Discussion: Familial FFA is becoming a more recognized entity. Although a genetic link has not yet been established, a family history of FFA has been reported in 17.7% of affected individuals. Immunologic factors effect Th1-mediated inflammation leading to collapse of hair follicle immune privilege and bulge epithelial stem cell destruction are thought to be the key events leading to permanent hair follicle destruction in FFA. Differences in the expression of human leukocyte antigen (HLA) class I and II may lead to reduced immune privilege. The study from Porrino-Bustamente et al. revealed that the F16A HLA class I haplotype with CYP21A2 gene p.V281L mutation could be a genetic marker for susceptibility to familial FFA in Spanish patients. Another study from Ramos et al. identified two susceptibility haplotypes, C*17:01:01:02/B*42:01:01:01 and C*07:02:01:03/B*07:02:01:01 among Brazilian familial cases and also in sporadic cases. Our patient group reveals a novel susceptibility haplotype for FFA. Identification of these haplotypes further enhances the genetic background of the disease and may provide a diagnostic and therapeutic contribution for both sporadic and familial cases of FFA.

Keywords: frontal fibrosing alopecia, familial, HLA

Figure 1

The oldest sister

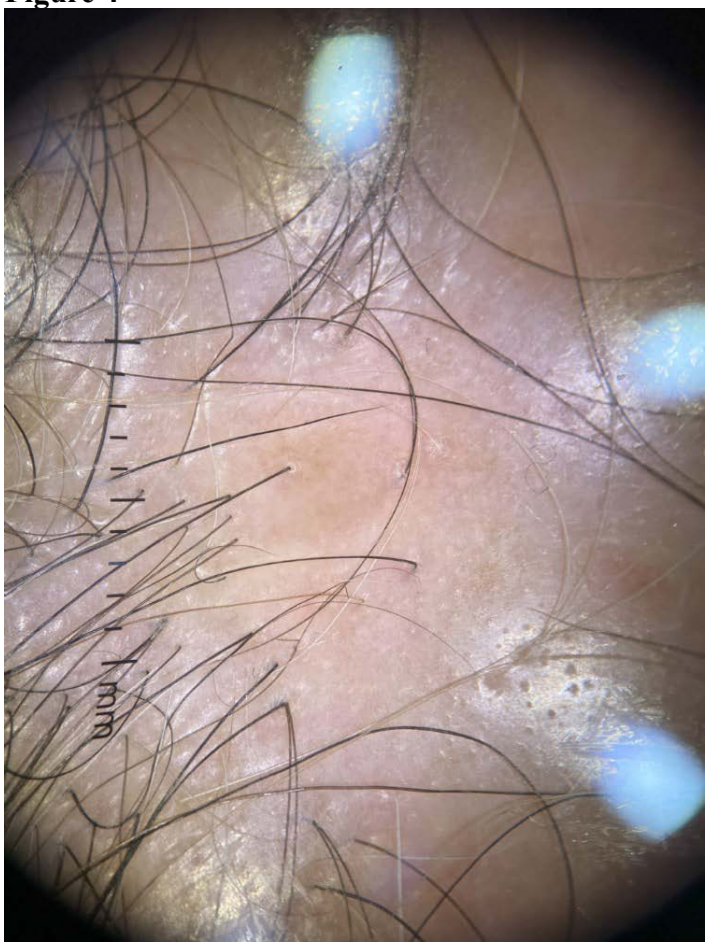
Figure 2

The middle sister

Figure 3

The youngest sister

Figure 4



Trichoscopic examination showing loss of hair follicular openings in the affected hairline and perifollicular hyperkeratosis.

OP-10 [Adverse Drug Reactions, TEN]

Dermatological Side Effects of Drugs Used in Oncological Treatment

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Introduction & OBJECTIVES: Anticancer drugs may have systemic or just dermatological side effects. Dermatological side effects of oncological drugs are usually not fatal, in general, it impairs treatment

adherence and quality of life. For this reason, it is important for oncologists and dermatologists to evaluate oncology patients with skin side effects during chemotherapy treatment.

Materials & METHODS: In this single center study, between April 2021 and February 2022, patients who underwent conventional chemotherapy and targeted agent therapy due to cancer in the Oncology outpatient clinic were prospectively evaluated upon the development of skin side effects. The age, sex, type of cancer, character of skin lesions and treatment applied to the patients were recorded.

RESULTS: A total of 131 patients, 69 women and 62 men, were included in the study. The mean age was 58.12 years and the mean duration of the disease was 20.76 months. The 3 most common diagnoses were breast carcinoma, colon carcinoma and lung carcinoma. Targeted therapies were applied to 42% of the patients, conventional chemotherapies to 31.3%, immunotherapy to 6.1% and hormonal agents to 4.6%. In further analysis, it was seen that there was a significant difference in terms of gender in lung, breast and gastric carcinomas ($p<0.05$). Lung and gastric carcinoma in men; breast carcinoma was more common in women. The most common side effects are; acneiform rash, acral erythema, pruritus, herpes zoster, alopecia and hair follicle problems.

CONCLUSION: Oncology and dermatology specialists need to work multidisciplinarily to ensure optimal treatment and patient management. In the management of dermatological side effects that may occur during anticancer treatment; oncologists and dermatologists need to have knowledge and experience. If possible, these patients should be given a skin examination at every outpatient clinic appointment.

Keywords: cancer, chemoterapy, dermatological side effects, immunotherapy

OP-11 [Dermatology and Internal Medicine, including Skin Manifestations of Systemic Diseases]

Periorbital Purpuric Plaques: Immunoglobulin Light Chain Amyloidosis A Case Report

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INTRODUCTION: Amyloidosis is caused by extracellular deposition of pathological insoluble fibrillary protein in organs and tissues and may cause severe organ dysfunction and death. The most common type of amyloidosis is immunoglobulin light chain (AL) amyloidosis which involves kidney, heart, liver, peripheral nerves, autonomic nervous system and skin. Skin involvement may be presented with periorbital purpura and macroglossia. Here, we present a 57 years old female patient with periorbital purpuric plaques who was diagnosed with systemic AL amyloidosis.

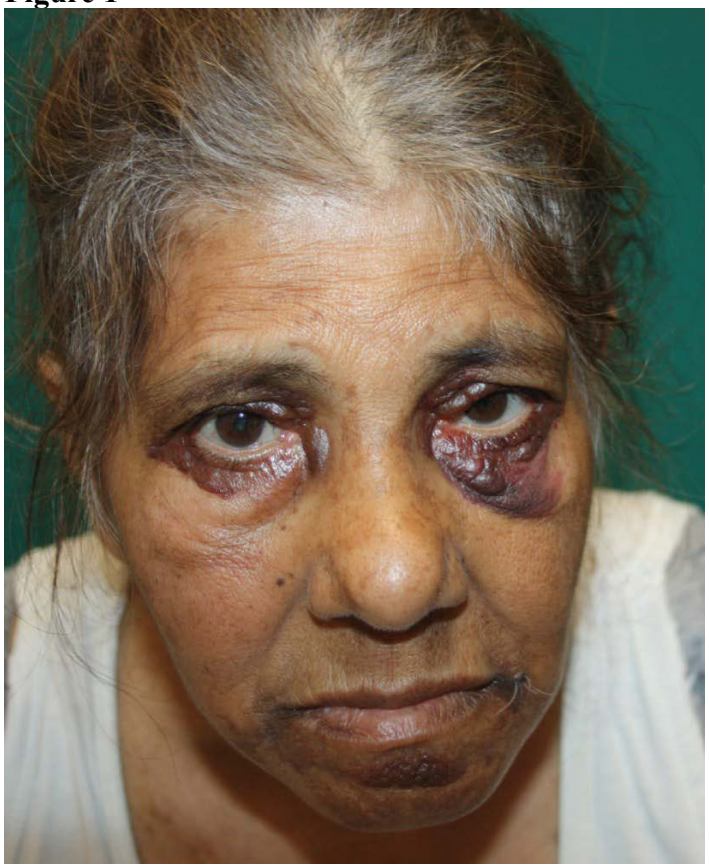
Case Report: A 57 years old female with hypertension presented with generalized weakness, weight loss and skin lesions in periorbital areas. Dermatological examination revealed infiltrated waxy purpuric plaques in periorbital areas and jaw, purpuric plaque on the left lateral side of the tongue, purpuric papules and plaques in the presternal area, abdomen, and inguinal areas. She had macroglossia. The biopsy, which was perform on the purpuric papules in presternal area, showed epidermal atrophy, dermal eosinophilic material accumulation. Congo red staining revealed green birefringence under polarized light, consistent with amyloid. She was evaluated for possible organ involvement. Echocardiography showed left ventricular diastolic dysfunction. The excretion of urinary protein was high, 525 mg/24 h. Kappa free light-chains (FLCs) were 1,23 mg/L (normal range: 3.3–19.4 mg/L), lambda FLCs were 160 mg/L (normal range: 5.7-26.3 mg/L) kappa/lambda FLC ratio was 0.007 (normal range: 0.26–1.75). No lytic lesion was observed on PET. Bone marrow biopsy showed 2% plasma cells. Immunohistochemical

staining was positive for lambda. Given these findings, a diagnosis of systemic AL amyloidosis was made. The patient was started on Daratumumab Bortezomib-Cyclophosphamide-Dexametzone chemotherapy. She developed acute kidney injury and died after cardiac arrest.

Discussion: AL amyloidosis is a systemic disease characterized by an amyloid deposition process affecting many organs. Cutaneous findings in AL amyloidosis depends upon the site of amyloid deposition. Superficial dermal deposition of amyloid causes shiny waxy translucent papules. Flexural areas are sites of predilection, including periorbital areas, inframammary area, umbilicus, inguinal regions. Lesions can also be found on the central face, tongue and buccal mucosa. Macroglossia, a pathognomonic sign of this disorder. Biyopsy is essential for diagnosis. Congo red staining for amyloid should be used. It must be shown presence of an amyloid related systemic syndrome, evidence that amyloid is light-chain-related, evidence of a monoclonal plasma cell proliferative disorder. A high level of clinical suspicion is essential to avoid delayed diagnosis. Therefore, clinicians should be aware of cutaneous lesions in AL amyloidosis, as in this case.

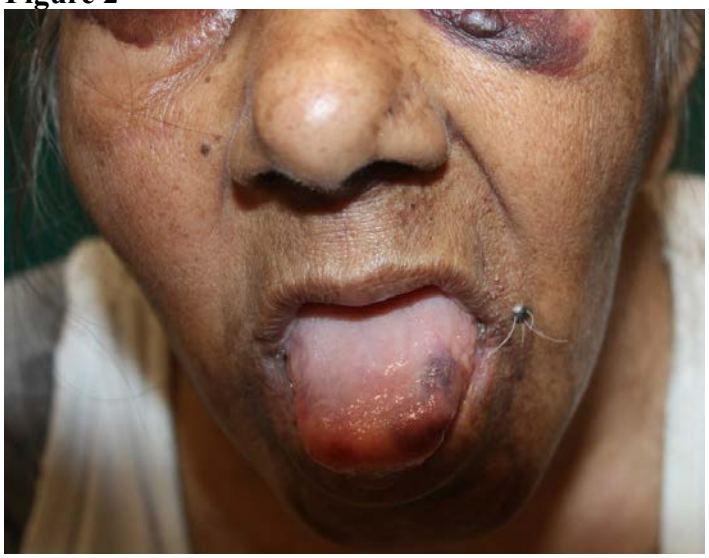
Keywords: AL amyloidosis, periorbital purpura, cutaneous findings

Figure 1



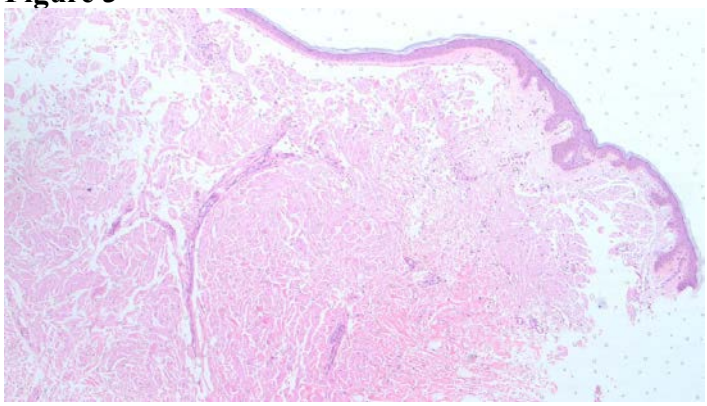
Infiltrated waxy purpuric plaques in periorbital areas and jaw

Figure 2



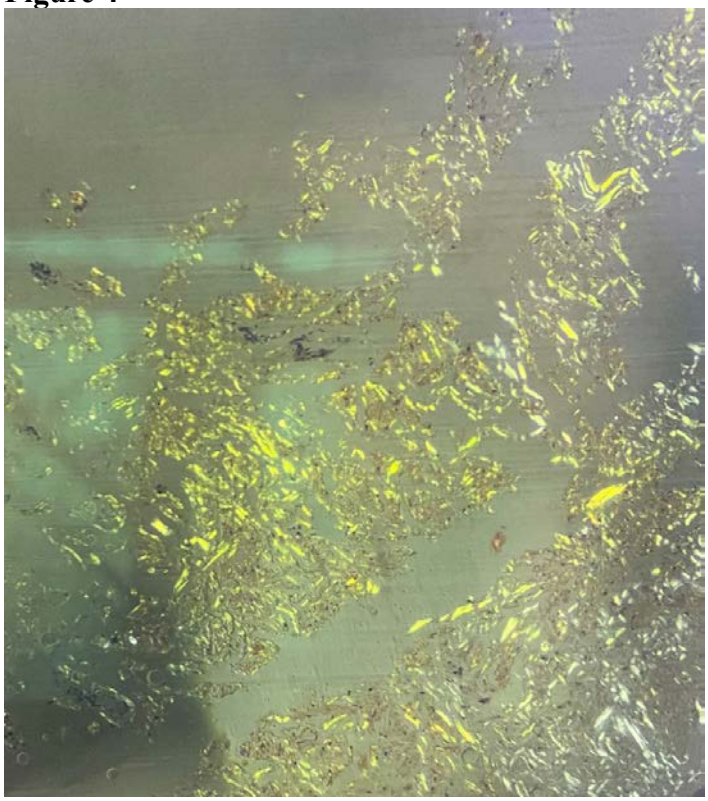
Purpuric plaque on the left lateral side of the tongue

Figure 3



Epidermal atrophy, dermal eosinophilic material accumulation (H&E X40)

Figure 4



Congo red staining revealed green birefringence under polarized light, consistent with amyloid.

OP-12 [Infectious Diseases, Parasitic Diseases, Infestations]

Erythema Multiforme Secondary to Orf

Kadir Kaya, Isa An
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INTRODUCTION: Orf, also known as ecthyma contagiosum, is an infectious disease that emerges after contact with infected sheep and goats. Complications of orf include secondary bacterial infections, lymphadenopathy, lymphangitis, and erythema multiforme (EM). Our case is presented to emphasize the consideration of erythema multiforme, a rare complication of orf.

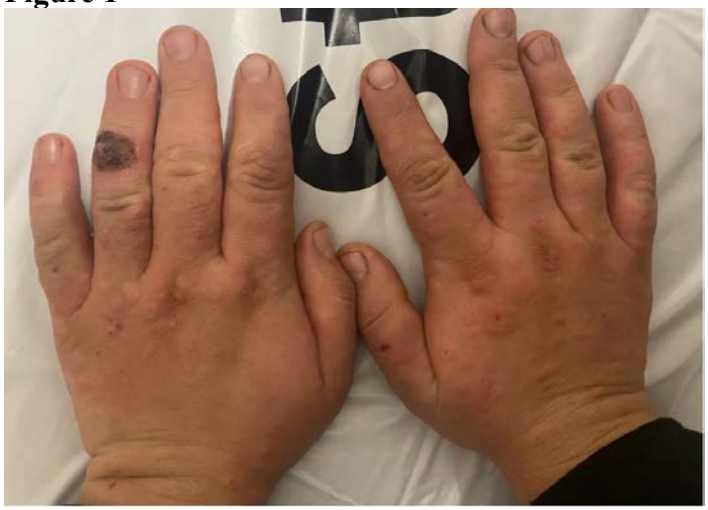
CASE PRESENTATİON: A 39-year-old female patient presented to our clinic with a wound on her finger and red swellings on her hands. Her history revealed that she worked in animal husbandry, had small ruminants, and first noticed a wound on her finger, followed by other swellings approximately 10 days later. The patient reported itching. Dermatological examination showed a nodular lesion with an erythematous perimeter and a crusty surface on the left hand's fourth finger and widespread targetoid lesions on the dorsa of both hands and fingers (Figure 1). The patient was diagnosed with orf for the primary lesion and EM for the subsequent lesions. Treatment with topical antibiotics for orf and topical steroids and systemic antihistamines for EM lesions was initiated. Both conditions improved within two weeks.

DISCUSSION: Orf is a self-limiting zoonotic skin infection caused by a DNA virus of the Parapoxvirus genus within the Poxviridae family, transmitted through contact with infected sheep and goats. It is commonly seen in individuals engaged in animal husbandry. In our country, cases increase, especially during the Eid al-Adha period. It starts as an erythematous macule, transforms into a papulonodular lesion, and heals by itself within 4-8 weeks. It most commonly appears on the fingers and hands. Complications reported related to orf include secondary bacterial infections, lymphadenopathy, lymphangitis, papulopustular rash, and erythema multiforme. It has been reported that

EM appears in 4-13% of patients diagnosed with orf. The mechanism by which orf induces EM is not fully understood, but the immunomodulatory virulence factors produced by the virus are implicated. Aktaş et al. reported that hospital admissions are often due to EM lesions that appear subsequently rather than the orf itself. Erythema multiforme secondary to orf typically appears 2-4 weeks after the orf lesion and can manifest as symmetrically distributed macules, papules, targetoid lesions, and bullae, most frequently on the hands and forearms. The severity of EM can vary but usually regresses spontaneously within a few weeks. Treatment for EM related to orf includes topical steroids, systemic antihistamines, and systemic steroids for severe cases on a short-term basis. EM lesions emerging in individuals engaged in animal husbandry should prompt consideration of Orf disease as an etiology, and the complications of commonly occurring Orf in our country should be well understood.

Keywords: complication, erythema multiforme, orf

Figure 1



OP-13 [Psoriasis]

Psoriasis-Vitiligo Coexistence

Kadir Kaya, Isa An
Department of Dermatology, Şanlıurfa Training and Research Hospital, Şanlıurfa, Turkey.

INTRODUCTION: Psoriasis and vitiligo are diseases reported to have some commonalities in etiopathogenesis, and although their relationship has not been proven, it has been reported. Our case, where both diseases are present in the same patient simultaneously, is presented to support the ongoing research into this connection.

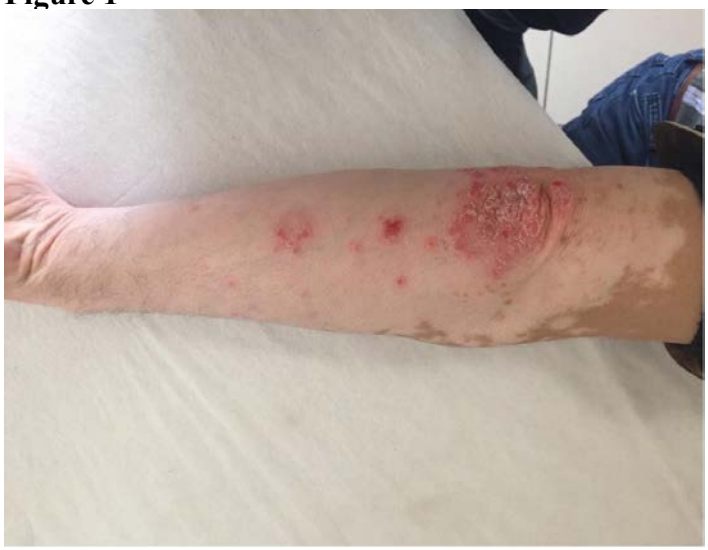
CASE PRESENTATION: A 40-year-old male patient, who had been diagnosed with vitiligo for a long time, consulted our clinic due to red scaly sores that appeared five months ago on a vitiligo-affected area on his right arm. He had no known additional diseases. Dermatological examination revealed depigmented patches along the right arm with erythematous scaly plaque lesions located on the right elbow and forearm over the depigmented patch (Figure 1). Histopathological examination of biopsy material taken from the lesions was consistent with psoriasis.

DISCUSSION: Although the etiopathogenesis of both psoriasis and vitiligo has not been fully elucidated, psoriasis is thought to arise from an interplay between genetic and epigenetic factors and the immune system's interaction with the skin; whereas vitiligo is associated with epidermal melanocyte damage, with various conditions including autoimmunity implicated in its etiology. There are few studies in the literature regarding the relationship between psoriasis and vitiligo, and the results of these studies are inconsistent. Cases including psoriatic plaques limited only to vitiligo patches have been reported, suggesting the coexistence might be coincidental. Conversely, it has been considered that there might be a common etiology between these two diseases, involving immune mechanisms. The detection of a higher rate of autoimmune diseases in patients with psoriasis compared to the general population, and the association of vitiligo with autoimmune diseases like alopecia areata, hypothyroidism, and pernicious anemia, suggest a potential link between these two

conditions. Studies investigating the prevalence of vitiligo in patients with psoriasis and vice versa have been conducted, and their findings were evaluated in a meta-analysis. According to this, compared to controls, the likelihood of patients with psoriasis developing vitiligo was 2.29 times higher; similarly, the probability of patients with vitiligo developing psoriasis was 3.43 times higher. Our case, where psoriasis lesions appeared exclusively within vitiligo patches, is presented to potentially support the views regarding the connection between these two diseases. However, further studies are needed to investigate this relationship.

Keywords: etiopathogenesis, psoriasis, relationship, vitiligo

Figure 1



OP-14 [Adverse Drug Reactions, TEN]

A Patient with a Severe Rosacea-like Rash and Outline of Skin Toxicity of Epidermal Growth Factor Receptor Inhibitors

Semahat ALP
Mardin Artuklu University, Medical Faculty, Department of Dermatology, Turkey

INTRODUCTION: Epidermal growth factor receptor (EGFR) inhibitors are targeted biological agents used in various advanced malignancies. EGFRIs have less systemic toxicity, but higher skin toxicity compared to conventional drugs. Therefore, it is precious to identify and properly manage adverse events (AEs) that may hinder cancer control by leading to dose reduction or treatment interruption. This patient developing severe rosacea-like rash (RLR) after erlotinib is presented to draw attention to the clinical appearance of the papulopustular exanthemas (PPE) mimicking rosacea.

CASE: A 62-year-old male with metastatic lung adenocarcinoma was referred to our department due to severe PPE in the second week of oral erlotinib added to chemotherapy. He reported an itchy rash that appeared in the first week of erlotinib, increased rapidly and became severe. His examination revealed a few papules and numerous scattered pustules over an erythematous and slightly oedematous base in the midfacial region, typical for papulopustular rosacea, with mild involvement of the neck and chest (Fig.1). There was no history of acneiform rash or rosacea. He did not consent to perform a skin biopsy. His rash was interpreted as erlotinib-induced RLR and he was prescribed, topically metronidazole and steroid, with an emollient. To switch to another agent instead of erlotinib, and start systemic doxycycline, if needed, were proposed.

DISCUSSION: EGFR is physiologically expressed in the integumentary system. An intervention in the EGFR pathway can lead to skin AEs. A meta-analysis concluded that 7.7% of patients discontinued treatment due to AEs caused by EGFR tyrosine kinase inhibitors (eg. erlotinib, afatinib). Their most common AEs are PPEs, which are usually mild to moderate but can be severe. Skin AEs are shown in Table 1. PPEs typically occur in seborrheic areas; begin with erythema and oedema and progress in papules and pustules, without comedones, whereas they have been called acneiform in many reports. Although therapeutic options for rash are like acne vulgaris, PPE is a different entity, with the lack of the typical blackheads, but having dysesthesia, irritation, and pruritus. However, rosacea, too, may be worsened by certain medications. The clinical appearance of RLR varies among different drugs, and RLR should be differentiated from rosacea. In this case, when the history and the time interval between the rash and the onset of erlotinib were evaluated together, the diagnosis of RLD strengthened and erlotinib was the only possible triggering agent. In case of requiring

uninterrupted treatment, choosing a drug with the same effect but from a different class may be recommended. However, treatment options for EGFRIs-induced PPE vary, its management depends on the severity of the rash, Table 2. A multidisciplinary approach with extensive knowledge may contribute to the success of oncological treatment for all patients who cannot tolerate cancer medication due to AEs.

Keywords: Epidermal growth factor receptor inhibitor, erlotinib, adverse effect, rosacea-like rash

Figure 1.

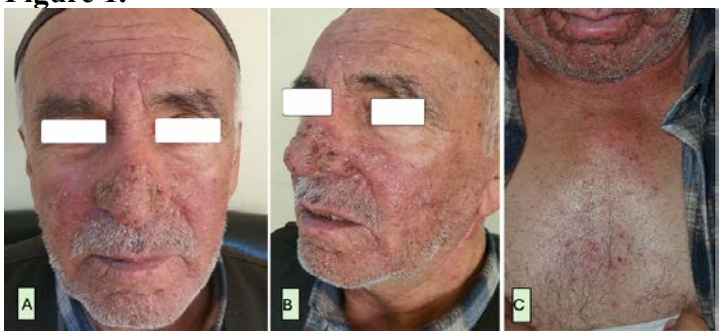


Figure1. A &B Male patient with papulopustular rash mimicking typical rosacea, C) PPE on his chest

Table 1.

Papulopustular eruption; most common reported, up to rate of 89%
Nail and periungual changes; Paronychia, painful fissures, swelling, non-infectious granuloma
Mucositis
Xeroderma
Hair and scalp changes; hair loss (scarring or non-scarring alopecia), hirsutism, hair rigidity and curling, trichomegaly, scalp inflammation
Pruritus
Photosensitivity
Frontal alopecia; with progressive growth of facial hair and eyelashes facial hypertrichosis
Hand-foot syndrome
Erythrodysesthesia
Pigmentation disorders; hypo- and hyperpigmentation
Psoriasis; diffuse or localised
Telangiectasia

Most reported adverse events relating to EGFRIs

Table 2.

Recommended therapies	Therapies to avoid due to irritation	Therapies, preventive or prophylactic
MILD PPE		
Topical antibiotics; 2% mupirocin ointment, 1% clindamycin emuls., or, metronidazole cream	Benzoyl peroxide or topical tretinoin	Topical doxycycline foam
Topical corticosteroids; mild to medium potency, by region of the rash	Alcohol-containing gels, solutions	Vitamin K1 based cream
Topical calcineurin inhibitors; 0.1% tacrolimus ointment, 1% pimecrolimus cream		
EGF ointment		
MODERATE SEVERITY PPE		
*Oral tetracyclines; minocycline (50– 100 mg bid) or doxycycline (100 mg bid) Caution; may affect patient's intestinal microbiota		
*Oral isotretinoin: an alternative option for refractory cases, Caution; may aggravate skin xerosis, photosensitivity		
Oral Prednisone (0.5 mg/ kg) may be used to control the skin reactions		
SEVERE PPE		
-Extremely rare, should be treated in specialized burn care units. -The use of the targeted agent should be stopped immediately *Oral tetracyclines *Oral isotretinoin Oral glucocorticoids: may be recommended		
* Recommendations for the use of oral tetracyclines and oral isotretinoin are low grade and data are insufficient.		

Treatment Approaches to EGFRI-induced PPE

OP-15 [Adverse Drug Reactions, TEN]

Tofacitinib-induced paradoxical psoriasis

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Introduction&Objectives: Janus kinase (JAK) inhibitors are novel therapeutic agents that target and block cytokine signals mediated by the Janus kinase signal transducer transcription activator (JAK-STAT) pathway, thereby regulating immune response and cell growth. In recent years, JAK inhibitors have been frequently used in dermatology in diseases such as psoriasis, atopic dermatitis and alopecia areata. Development of acne and viral infections such as herpes zoster have been reported as dermatological side effects of JAK inhibitors. However, the number of reported cases of paradoxical psoriasis development is quite limited. In this article, a case who was started tofacinitib with a diagnosis of alopecia universalis and developed paradoxical psoriasis after treatment is presented.

Material&METHODS: A 12-year-old girl presented to our outpatient clinic with hair loss. Hair loss had been occurring since she was 4 years old and no response was obtained to topical treatments. When her anamnesis was questioned, it was learnt that she had lesions compatible with psoriasis which appeared 3 years ago and recurred intermittently and responded to topical treatments, and she had no other comorbidities. Dermatological examination revealed absence of hair and body hair and some hair loss in her eyebrows and eyelashes. There were several psoriatic plaques on the trunk. After no response to topical therapies and systemic drugs continued for at least 6 months, it was decided to start tofacitinib. Laboratory parameters were normal and tofacitinib (5mg, 2 x 1) was started. At the follow-up visit four months later, it was observed that the patient had widespread psoriatic plaques all over his body. (figure-1) PASI was calculated 16. It was learnt that she did not have any infection including respiratory tract infection and did not use any additional medication. The lesions were thought to be related to tofacitinib use. Tofacitinib was discontinued. Pulsed UVB phototherapy and topical treatments were started. Significant regression of the lesions was observed in the follow-up visits. (figure-2)

RESULTS: The development of paradoxical psoriasis due to the use of biological agents in the treatment of psoriasis has been previously reported. Especially cases of paradoxical psoriasis due to the use of anti-TNF-alpha monoclonal antibodies have been reported. It has been suggested that psoriasis may develop as a result of activation of dendritic cells associated with IFN-α increase after TNF-alpha inhibition. To date, there have been a few case reports on the development of psoriasis with JAK inhibitors.

Conclusion: The use of JAK inhibitors in various diseases is increasing day by day. Although JAK inhibitors such as tofacitinib are used in the treatment of psoriasis, clinicians should be aware that they may cause paradoxical psoriasis, albeit rarely. Further research on how this side effect occurs is needed.

Keywords: tofacitinib,alopecia universalis,paradoxical psoriasis,JAK inhibitors

Figure-1

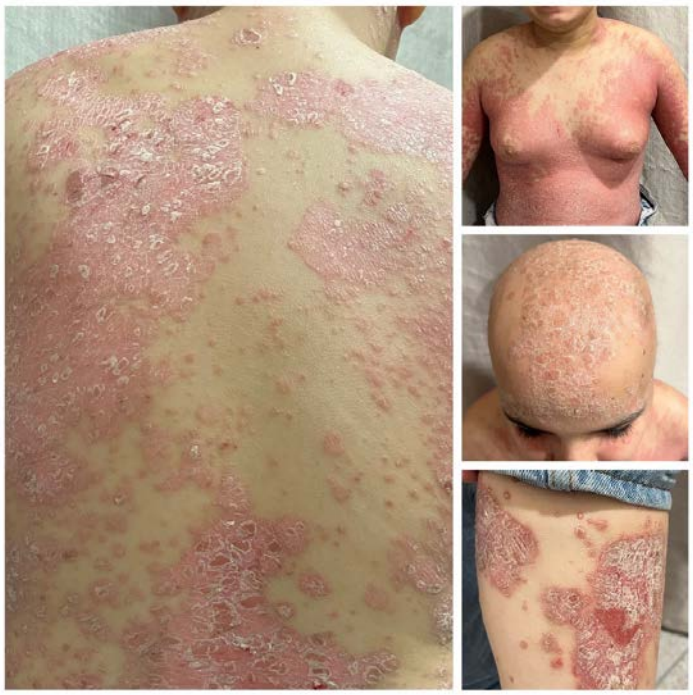
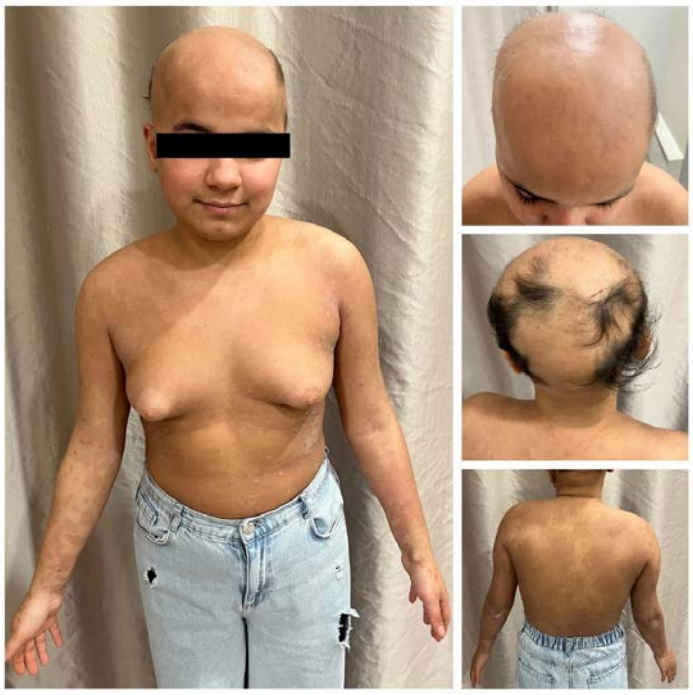


Figure-2



OP-16 [Infectious Diseases, Parasitic Diseases, Infestations]

Evaluation Of Covid-19 Expression In Skin Biopsies After Covid-19 Vaccination And/Or Infection

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In March 2020, the SARS-CoV-2 infection, declared as a pandemic by the World Health Organization, primarily spreads through droplets and contact transmission. It manifests with symptoms such as fever, dry cough, sore throat, and can progress to severe clinical conditions like pneumonia, gastrointestinal symptoms, and multiorgan failure. Skin manifestations during the course of the disease have been identified, including urticaria, morbilliform rash, vesicular eruption, acral lesions, and livedoid eruptions. The mechanisms of damage caused by SARS-CoV-2 in organs are complex. ACE2 (angiotensin-converting enzyme 2) and TMPRSS2 (transmembrane protease serine 2) receptors expressed in target tissues are the targets of SARS-CoV-2. Dermal endothelial cells expressing ACE2 play a role in the pathophysiology of skin involvement. Additionally, inflammatory cells due to cytokine increase can lead to the formation of urticarial lesions and livedoid eruptions related to thrombosis and vasculitis. In our study, we investigated the immunohistochemical expression of viral antigens in biopsy materials related to skin lesions that may be associated with Covid-19 infection and Covid-19 vaccination. A total of 79 patients who underwent skin biopsy for various reasons at our center within a 2-month period after Covid-19 PCR positivity and/or vaccination were included in the study. Of the 79 patients, 63 had symptoms after vaccination, and 16 had symptoms during and after infection. The average age of patients who underwent biopsy due to post-infection skin lesions was 48, while the average age of patients who underwent biopsy after vaccination was 59. In immunohistochemical evaluation, Covid-19 expression was detected in 19 of the 79 patients. Of the 19 patients with expression, 14 had post-vaccination skin lesions, and 5 had skin lesions after infection. Among the cases with expression, 4 had psoriasis, 2 had vasculitis, 2 had drug eruption, and others were diagnosed with pemphigus vulgaris, mycosis fungoides, contact dermatitis, lichen planus, erythema multiforme, granuloma annulare, fibrotic dermatitis, pruritus gravidarum, pityriasis lichenoides chronica, Duhring, and bullous pemphigoid. In conclusion, significant antigen expression in vascular endothelial cells was mainly evaluated in psoriasis cases.

Keywords: vaccine, skin, Covid-19, immunohistochemistry

Table 1

AGE	GENDER	V / PCR	SYMPTOM ONLI-NE TIME	DIAGNOSIS
24	M	Vaccine	1 week	Psoriasis
60	M	Vaccine	4 weeks	Psoriasis
42	M	Vaccine	2 weeks	Psoriasis
22	F	Vaccine	9 weeks	Psoriasis
51	F	Vaccine	4 weeks	Vasculitis
45	M	PCR	3 weeks	Vasculitis
49	M	PCR	8 weeks	Drug Eruption
70	M	Vaccine	6 weeks	Drug Eruption
46	F	Vaccine	1 week	Pemphigus Vulgaris
74	F	Vaccine	4 weeks	Mycosis Fungoides
44	F	Vaccine	6 weeks	Contact Dermatitis
51	M	Vaccine	1 week	Lichen Planus
81	M	Vaccine	6 weeks	Erythema Multiforme
62	M	PCR	1 week	Granuloma Annulare
65	F	Vaccine	8 weeks	Fibrotizing Dermatitis
37	F	PCR	1 week	Pruri Gravidarum
35	F	Vaccine	3 weeks	Pityriasis Lichenoides Chronica
73	F	PCR	4 weeks	Duhring
80	F	Vaccine	5 weeks	Bullous Pemphigoid

The clinical features of cases with detected Covid-19 expression in our study

OP-17 [Adverse Drug Reactions, TEN]

Success of triple agent therapy in patients with Stevens-Johnson syndrome/Toxic epidermal necrolysis: Tertiary referral hospital experience

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INTRODUCTION & OBJECTIVES: Stevens-Johnson syndrome and toxic epidermal necrolysis (SJS/TEN) are rare,acute,and life-threatening delayed-type drug hypersensitivity reactions.Treatment of SJS/TEN treatment is based on the general condition of the patient and the severity of the disease.Intensive care support, fluid replacement, infection treatment and pain management are the hallmark of the treatment. Since the disease is rare and fatal, there are not enough controlled studies in the literature and no consensus has been established regarding treatment.In this case series, three patients with TEN who recovered with the combination of intravenous immunoglobulin, cyclosporine and methylprednisolone therapy will be presented.

MATERIALS & METHODS: Three patients admitted to our clinic with similar symptoms of fatigue,fever,sore throat,generalized rash and blisters.Their initial physcial examinations were consistent wtih SJS/TEN.They had dusky maculopapular rash and bullae throughout the body;ulceration and hemorrhagic scaly plaques on the lips, oral and genital mucosae. Epidermal detachment and Nikolsky sign were positive in skin and mucosae in all patients.Suspected triggering agents were naproxen sodium,ibuprofen and ceftriaxone.Patients were diagnosed with TEN based on medical history and physcial examination.Their SCORTEN scores were 2,3 and 2. Patient was given combination therapy of methylpredinosolone 120mg which was tapered after 10 days, IVIG 2mg/kg in five days, and cyclosporine 4mg/kg for 10 days.

RESULTS: In all three patients, body involvement increased to over 90% after hospitalisation. The patients were started on a triple combination therapy.Fluid replacement, infection treatment and pain management were also maintained. In all three patients, one week after the initiation of treatment, their general condition improved, new lesion formation ceased and involved body surface area started to decrease.No serious adverse effects were observed during the treatment.During this period, collaboration with several departments such as anaesthesia, ophthalmology, infectious diseases and burn unit was achieved. SCORTEN of the patients started to decrease rapidly and became zero (one case remained one due to age).Patients were discharged with recovery and informed to avoid suspicious agents

CONCLUSIONS: As the SJS/TEN are rare and fatal diseases, there are not enough controlled studies on treatment and no consensus has been established. Numerous studies have described favorable outcomes with various treatment combinations involving corticosteroids, intravenous immunoglobulin, cyclosporine, and TNF-alpha inhibitors. There is no study investigating the efficacy of combination of IVIG,cyclosporine and systemic steroids. This case series explores the effectiveness of said combination

therapy and shows that IVIG, cyclosporine and systemic steroid combination may be a viable and effective therapy option for SJS/TEN patients.

Keywords: toxic epidermal necrolysis,Stevens-Johnson syndrome,cyclosporine,methylprednisolone,IVIG

OP-18 [Cutaneous Oncology]

The Long Term Management of a Basal Cell Carcinoma Undergoing Reconstructive Procedures Before the Acquisition of Negative Margins

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INTRODUCTION: Basal cell carcinoma (BCC) is the most common skin malignancy. Surgery is considered the gold standard treatment for this tumor. Ensuring adequate negative surgical margins is the key point for preventing recurrence. Thus, reconstructive procures must be delayed till there is no suspicion about tumor margins. Herein, we report a case with 18-years history of a recurring nodular BCC. He had undergone flap and grafting procedures before the acquisition of negative margins. Vismodegib, a hedgehog pathway inhibitor was used to treat this refractory and recurrent BCC lesions and he is still undergoing treatment with topical BCC treatments.

CASE: A 68 year-old male patient applied to our department with multiple scarce pigmented lesions located along the margins of a previous scar on the left cheek. The first time he applied to a hospital with a complaint of a crusted wound on the left cheek was in 2006 and the diagnosis was nodular BCC. He developed recurrences despite two repeated surgeries for the excision of the lesion. His third excisional surgery was combined with a flap reconstruction. Thereafter, he continued experiencing recurrences and received radiotherapy. In 2016, we administered 150mg/day vismodegib treatment because he wasn't deemed suitable for surgery and RT. The treatment was discontinued after 6 months as the lesions healed almost completely. In 2021, vismodegib 150mg/day was initiated again for lesions evaluated in favor of recurrence. In 2022, the patient couldn't tolerate the drug due to taste disturbance and declined the treatment despite remarkable therapeutic benefit. He has been prescribed topical imiquimod treatment as there were tiny BCC lesions. His existing lesions are still being monitored with the combination of topical imiquimod and cryotherapy sessions.

DISCUSSION: According to NCCN 2024 guideline, all BCC lesions localized to the facial area are considered as high risk lesions and should be excised by 4-6 mm negative surgical margins. Our case demonstrates the importance of negative surgical margins, especially before reconstructive procedures as the tumor will be embedded under this area and continue to spread. Visdomegib stands as an effective option within this scenario; however the treatment must be prescribed for months, maybe years. Vismodegib is considered a safe drug for the geriatric population. However, common side effects such as taste disturbance and muscle cramps are a common cause for treatment incompliance. The cost and side effects are the major pitfalls. Several topical agents such as imiquimod and 5-fluorouracil can be administered as adjuvant therapeutic approaches.

Keywords: basal cell carcinoma, vismodegib, radiotherapy, negative surgical margin, flap surgery

OP-19 [Dermoscopy]

Dermoscopy of rosacea and comparison of dermoscopic features in subtypes of rosacea: Preliminary results of a prospective, descriptive study

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INTRODUCTION&OBJECTIVES: Rosacea is a chronic cutaneous disease that is characterized by flushing, persistent facial erythema, telangiectasia, papules, pustules involving predominantly on the convexities of the central face. Diagnosis is made by clinical symptoms and signs according to the criteria defined by National Rosacea Society Expert Committee. Although dermoscopic findings are not necessary for diagnosis, dermoscopy may be useful in the diagnosis and follow-up of the disease. In this study, it was aimed to evaluate dermoscopic findings in patients with rosacea and compare these findings between subtypes of rosacea.

MATERIALS&METHODS: This prospective, descriptive study included 80 patients with rosacea. Clinical characteristics of the patients, subtypes of rosacea, and dermoscopic findings were recorded.

RESULTS: Of 80 patients, 54 (67.5%) were females and 26 (32.5%) males with a mean age of 44.91 ± 11.97 years. Fourty patients (50%) had erythematotelangiectatic (ETR) and 40 patients (50%) had papulopustular (PPR) rosacea. In all patients with rosacea, 79 (98.8%) patients had erythema, 69 (86.3%) patients had telangiectasia, 12 (15%) patients had red dots, 21 (26.3%) patients had follicular scales, 57 (71.3%) patients had yellow dots, 72 (90%) patients had Demodex follicular openings/ Demodex Tails, 42 (52.5%) patients had follicular pustules on dermoscopic examination (Table 1). Follicular scales and follicular pustules were statistically significantly more likely to be seen in PPR (p=0.022, p<0.001, respectively). There was no statistically significant difference between the subtypes of rosacea in terms of other dermoscopic findings (p>0.05).

CONCLUSIONS: Dermoscopy can be used in the differential diagnosis of facial dermatoses. Rosacea had specific dermoscopic findings that were helpful in making the correct diagnosis. Moreover, apart from diagnosis, follow-up of patients can be done with dermoscopy and treatment options may be scheduled based on the dermoscopic findings.

Keywords: demodex, dermoscopy, erythematotelangiectatic rosacea, papulopustuler rosacea, rosacea

Table 1. Comparison of dermoscopic findings between rosacea subtypes

	ETR (n=40) n/%	PPR (n=40) n/%	ETR vs PPR p	Rosacea (n=80) n/%
Erythema	40 (100%)	39 (97.5%)	p=1	79 (98.8%)
Telangiectasia	35 (87.5%)	34 (85%)	p=0.745	69 (86.3%)
Red Dots	5 (12.5%)	7 (17.5%)	p=0.531	12 (15%)
Follicular scales	6 (15%)	15 (37.5%)	p=0.022*	21 (26.3%)
Yellow dots	26 (65%)	31 (77.5%)	p=0.217	57 (71.3%)
Demodex follicular openings/Demodex Tails	34 (85%)	38 (95%)	p=0.263	72 (90%)
Follicular pustules	4 (10%)	38 (95%)	p<0.001*	42 (52.5%)

*ETR: Erythematotelangiectatic rosacea, PPR: Papulopustular rosacea Data were expressed as n (%) in categoric variables. Independent categorical samples were compared with Chi Square test. If one or more cells had expected count less than 5, Fisher's Exact test was used. *p<0.05*

OP-20 [Dermatopathology]

Rapidly Presenting Bleeding Nodule on the Flexor Aspect of the Wrist

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INTRODUCTION: Rapidly growing, bleeding nodules on the skin surface suggest pyogenic granuloma and melanoma, but can also be seen many different dermatological diseases such as orf. Herein a case with a rapidly growing, bleeding nodule case displayed partial regression without resolution upon observation with systemic antibiotherapy. The lesion was excised and cutaneous lymphoid hyperplasia was detected on histopathological examination.

CASE: A 30-year-old woman presented with a 15x15mm dark red nodule on the flexor aspect of the left wrist, including crusting regions with foci of haemorrhage. There were scattered erythematous papules with targetoid character around the nodule and on the palmar side of both hands. The patient reported that the nodular lesion emerged 3 weeks ago as a tiny papule, gradually grew and 4 days before presentation, rashes started on both hands. The patient reported that she chopped raw meat and the first differential diagnosis was orf disease and reactive erythema multiforme. She was prescribed oral amoxicillin-clavulanate 1000mg and topical mupirocin pomade to prevent secondary infection and topical mometasone furoate was administered to erythema multiforme areas. After 3 weeks, the nodule size had decreased to 7x10 mm and erythema multiforme had disappeared completely. The patient was followed up with topical mupirocin pomade for 3 more weeks. Since complete regression was not achieved, the lesion was excised to exclude pyogenic granuloma and amelanotic melanoma. Pathological examination revealed a CD2 positive, CD20 sparsely positive, CD30 negative top-heavy dermal lymphoid infiltrate. No atypia was detected in lymphoid cells. The lesion was compatible with cutaneous lymphoid hyperplasia.

CONCLUSION: Cutaneous pseudolymphoma is defined in the literature as benign reactive lymphoproliferation that mimics cutaneous lymphomas histopathologically or clinically. It can be classified as T-cell, B-cell and mixed type according to the predominant immunophenotype. It may develop due to various bacterial, viral and parasitic infections, drugs, foreign agents such as vaccines, arthropod bites and ultraviolet radiation. The sequential appearance of erythema multiforme and cutaneous lymphoid hyperplasia in this patient suggested a reactive etiology. Although Orf infection, which was initially considered with the patient's history, is a well-known etiological factor for pseudolymphoma, no finding indicating a viral cytopathic effect in terms of Orf disease was detected upon histopathological evaluation.

Keywords: nodule, cutaneous lymphoid hyperplasia, pseudolymphoma, orf

OP-21 [Nail Disorders/Diseases]

Rare Nail Apparatus Disorder/Disease

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Case 1: A 61-year-old female patient, who had linear melanonychia on the nail of the second finger of her right hand for approximately 10 years, stated that its size had increased in the last year and covered the entire nail. On physical examination, it was observed that the lesion continued in the periungual area. The nail bed was removed, and an incisional biopsy was taken from the hyperpigmented area in the germinal matrix with the preliminary diagnosis of malignant melanoma. Case 2: A 42-year-old female patient who presented with a hyperpigmented lesion in the subungual space on the 4th finger nail of her right hand, underwent excision at the PIF level with the preliminary diagnosis of malignant melanoma.

In the microscopic examination, similar histomorphological findings were observed in both biopsy samples and have prominent lentiginous growth with more single cells than nests, moderate to severe atypia, haphazard and dense pagetoid intradermal spread. Tumor infiltrating with lymphocytes.

With these histomorphological findings, the cases were diagnosed with subungual malignant MM in situ. Subungual MM is a type of acral lentiginous melanoma located on the palms and soles of the feet, originating from structures within the nail apparatus. It accounts for 3% of all melanomas in populations with lightly pigmented skin and 30% of all melanomas in populations with darkly pigmented skin. In approximately 65% of cases, nail melanoma appears as a single dark black, vertical band. Because nail surgery is avoided due to the risk of dystrophy, subungual MM can be difficult to diagnose and often has a worse prognosis than melanomas arising elsewhere.

Keywords: Nail, Melanonychia, Subungual, Melanoma

OP-22 [Cutaneous Oncology]

Hydroxyurea Induced Multiple Actinic Keratoses A Case Report

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INTRODUCTION: Hydroxyurea (HU) is a cytotoxic agent used in the treatment of polycythemia vera (PV). Cutaneous adverse effects that occur with the use of HU include actinic keratosis (AK) formation. In this case report, we present a patient who developed multiple AKs on the face and scalp after HU use for PV treatment.

Case Report: A 69-year-old Caucasian male patient presented to our clinic with the complaint of crust formation on his face. He had a background of JAK2 V617F positive PV and treated with HU, acetylsalicylic acid. He had been treated with HU for 3 years at a dose of 1000 mg/day, total dose of 1095 g, as well as phlebotomy every month for his hematocrit of greater than 45%. The patient with Fitzpatrick skin type II had no history of skin cancer. Physical examination revealed multiple crusted plaques on the forehead, vertex, dorsum of the nose, bilateral zygomatic regions and left parotidomasseteric region. Dermatoscopy revealed yellow scales, white spots, background erythema. A 4 mm punch biopsy was performed on the lesion in the right zygomatic region was compatible with AK. Upon the development of ulceration in his crusted plaques on the scalp, 2 biopsies were performed from the lesions with suspicion of squamous cell carcinoma (SCC). After consultation with hematology, the patient's HU treatment was discontinued. Histopathological examination revealed ulcer, chronic inflammatory granulation tissue in the base of the ulcer, solar elastosis, and epithelial atypia findings in some areas of the epidermis around the ulcer. The patient was diagnosed with AK again, he treated with topical 5-fluorouracil (5-FU) and photoprotection was recommended. His lesions regressed within 2 months and 5-FU treatment was discontinued. His follow-up continues.

Discussion: HU is a ribonucleotide reductase inhibitor used for the treatment of myeloproliferative disorders including PV. DNA synthesis inhibition increases the risk of non-melanoma skin cancer (NMSC). Squamous dysplasia develops in photodistributed areas and usually in patients with Fitzpatrick skin types I-II due to the effect of ultraviolet radiation. AKs develops with or without NMSC in 0.2-30.7% of patients using HU in an average of 46 months. Therapeutic strategies for AK include cryotherapy, 5-FU, ingenol mebutate, imiquimod. Photoprotection needs to be emphasized. Our patient with Fitzpatrick skin type II received HU treatment, multiple AKs developed in the photodistribution areas and treated with 5-FU. Early diagnosis of AKs is important because SCC transformation had been observed in 8% of patients treated with HU. To prevent these complications, skin examination is recommended twice a year and patients with phototypes I-II and prolonged sun exposure should

be monitored more frequently. This case underlines that AKs, a precursor of SCC in photodistributed areas, should be added to the well-known cutaneous toxicities of HU therapy.

Keywords: Hydroxyurea, actinic keratosis, cutaneous adverse event, squamous dysplasia

Figure 1

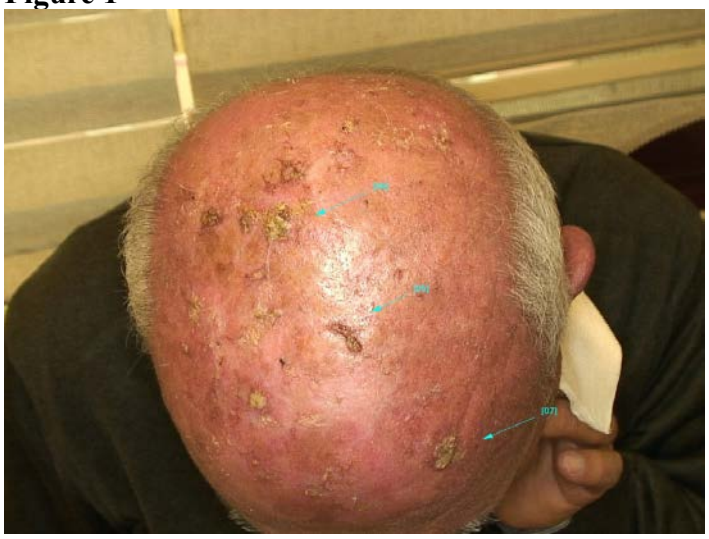


Figure 2

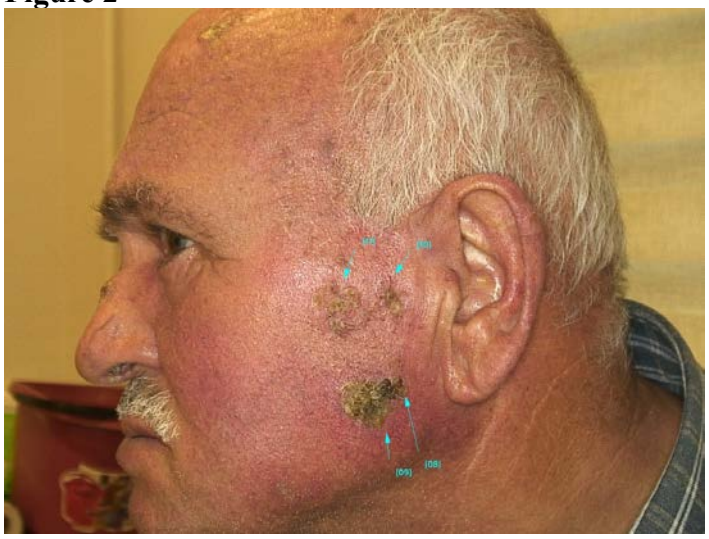
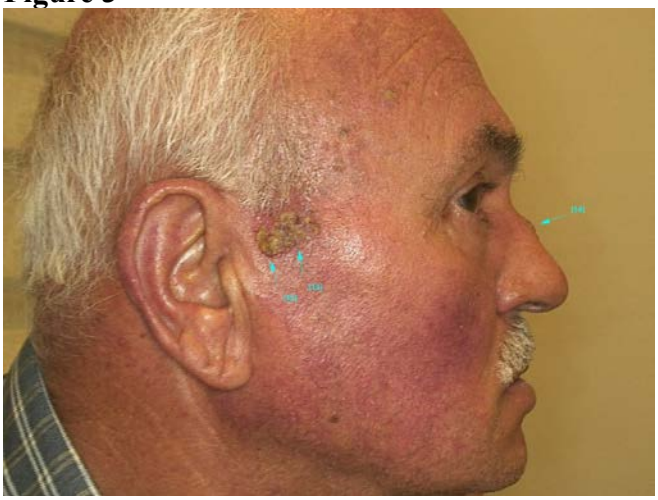
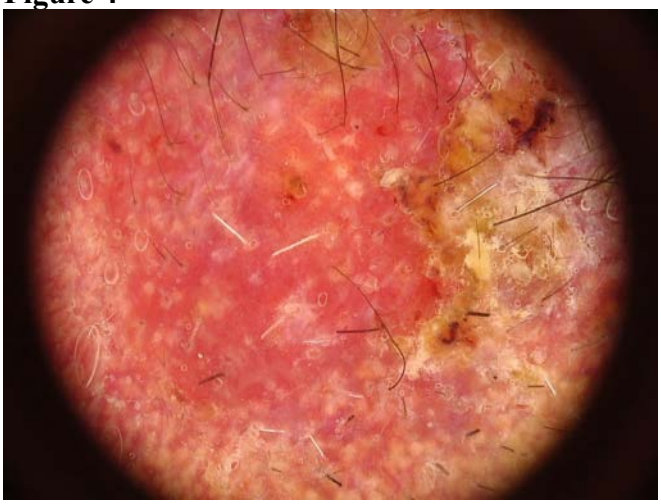


Figure 3



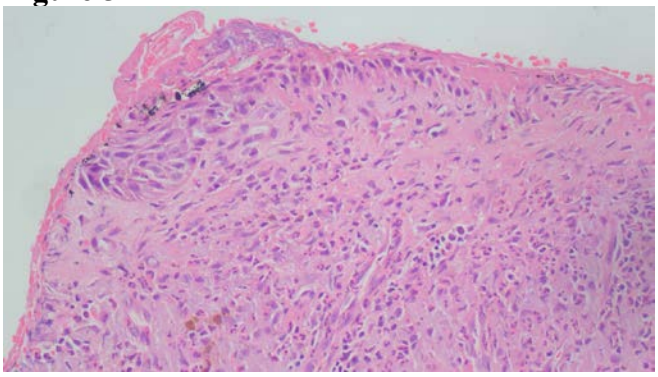
Multiple crusted plaques on the forehead, vertex, dorsum of the nose, bilateral zygomatic regions and left parotidomasseteric region

Figure 4



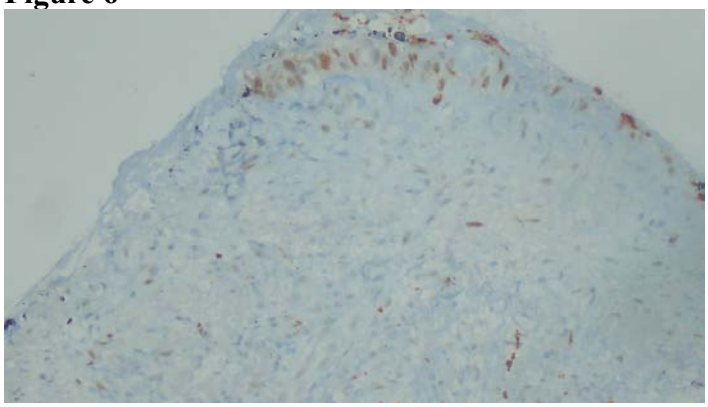
Dermatoscopy revealed yellow scales, white spots, background erythema.

Figure 5



Thinning of the epidermis, basal atypia findings, mixed type inflammatory cells in the dermis and melanin incontinence (H&E x200)

Figure 6



Cells showing basal atypia p53 immunoexpression (p53 immunohistochemical staining x 100)

OP-23 [Inflammatory Skin Diseases]

Evaluation of Clinical Characteristics and Treatment Modalities in Patients Diagnosed with Sweet Syndrome

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Introduction & OBJECTIVES: Sweet syndrome (SS) is an acute-onset, non-infectious inflammatory febrile neutrophilic dermatosis characterized by painful erythematous papules, pustules, or nodules, accompanied by fever and neutrophilic leukocytosis. It is rare and studies on SS in the literature are limited to case reports or series. Here, we present cases diagnosed with SS in our clinic due to its rarity.

Materials & METHODS: The clinical and demographic characteristics of patients who presented to our clinic between 2017 and 2023, with a clinical diagnosis of SS and histopathologically confirmed, were retrospectively evaluated.

RESULTS: The study included 12 patients, comprising 6 males and 6 females. The mean age at the time of diagnosis was 63.5±12.4 years. The average CRP level at admission was 144.1±66.9, and the mean neutrophil count was 11625±6335. Malignancy accompanied 3 patients (rectal adenocarcinoma, Acute myeloid leukemia (AML), Myelodysplastic syndrome (MDS)). One patient was diagnosed with pulmonary sarcoidosis. Half of the patients had a triggering history. One patient experienced bone and skin involvement after trauma, another had neurological involvement post-COVID infection, two patients developed skin lesions after contrast agent use, and two showed activation following pneumonia and pharyngitis. Systemic steroids were initiated as the first treatment option in eight patients, leading to clinical improvement. Regression of skin lesions was observed in the patient diagnosed with concurrent AML following chemotherapy. Other treatments included colchicine, oral or topical dapsone, topical steroids and potassium iodide.

CONCLUSIONS: SS has been reported in association with various conditions, including infectious diseases, malignancies and autoimmune processes. Approximately 21% of the patients have an associated malignancy, with the majority of these cases being linked to hematological diseases, predominantly MDS and AML. In our study, malignancy was concurrent in 25% of the patients, including cases of AML, MDS, and rectal adenocarcinoma. Furthermore, a number of iatrogenic triggers for SS have recently emerged in the literature. In two of our patients, disease activation was observed following exposure to contrast agents. Extracutaneous involvement can accompany Sweet syndrome, including neurological, pulmonary, ophthalmic, and involvement of various other systems. We observed neurological and bone involvement in our patients. The activation of neuro-Sweet syndrome following COVID infection is also noteworthy due to its rarity. The treatment of underlying malignancy or discontinuation of the provoking medication is crucial. Additionally, corticosteroids constitute the mainstay of SS treatment. We observed clinical improvement with systemic steroids. In conclusion, SS is a rare condition. Clinicians should be aware of the associated malignancies, triggering factors, and extracutaneous involvement.

Keywords: sweet syndrome, malignancy, neurosweet, COVID

OP-24 [Wounds, Chronic Wounds, Wound Healing, Ulcer]

Retrospective evaluation of clinical characteristics, comorbidities and treatment responses of patients diagnosed with pyoderma gangrenosum

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Introduction: Pyoderma gangrenosum (PG) is a rare neutrophilic dermatosis characterized by rapidly progressive, painful skin ulcers with irregular erythematous margins. The etiology of PG is not fully understood, but it is generally considered an autoinflammatory disorder. In addition to clinical findings, histopathological examination may help in making the diagnosis. [1].

Method: Patients who applied to our clinic between 2012 and 2024 and were diagnosed with pyoderma gangrenosum clinically and histopathologically were included. The patients' age, gender, lesion location, triggering factor, comorbidities, treatment methods and response rate to treatment were recorded.

Findings: A total of 25 patients diagnosed with pyoderma gangrenosum were included. 17 patients were female and 8 were male. The age range was 11-74 and the mean age was 45.04 years (53.75 in males, 40.94 in females). The diagnosis of pyoderma gangrenosum was supported by histopathological examination in all cases. There was bacterial growth in the wound culture taken from the lesion area in 12 of the patients, these patients were first treated with systemic antibiotics for secondary infection. Systemic methylprednisolone was most frequently used therapeutic agent (18 patients), and followed by topical steroid (9 patients), intravenous immunoglobulin (IVIG) (8 patients), cyclosporine (5 patients), intralesional triamcinolone acetonide (4 patients), topical tacrolimus (2 patients), mycophenolate mofetil (1 patient) and topical calcipotriol (1 patient). There was no history of triggering factor in 17 patients.

RESULTS: Epidemiological studies show that the mean age of onset of pyoderma gangrenosum is in the 40s and the incidence is only a few cases per million people per year. It may often be associated with inflammatory bowel diseases and rheumatoid arthritis [1]. PG is a complex disease resulting from a combination of inflammation, neutrophilic invasion, and genetic predisposition. PG affects most commonly the lower extremities [2]. In our study, 3 cases were resistant to systemic steroids, and 5 were resistant to both systemic steroids and cyclosporine, and these 8 patients responded to IVIG treatment. In cases resistant to systemic steroids and cyclosporine, which are first-line treatment options in pyoderma gangrenosum, IVIG treatment is an effective therapeutic agent. Although the evidence level is 3a, IVIG seems to be a good alternative option in cases with pyoderma gangrenosum resistant to other systemic agents.

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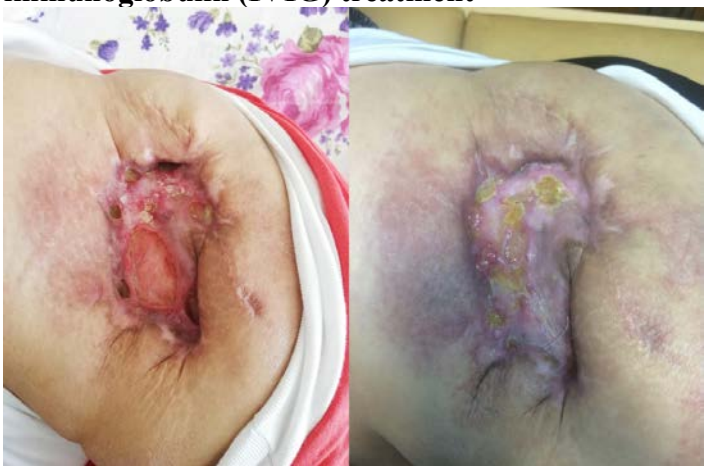
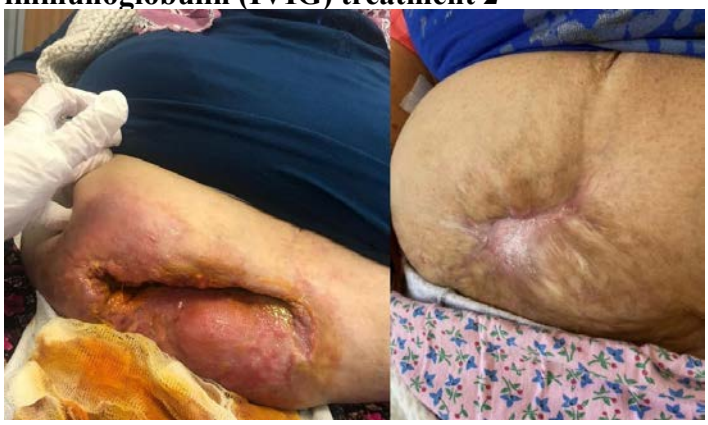
Keywords: neutrophilic dermatosis, Pyoderma gangrenosum, intravenous immunoglobulin, treatment responses

Pyoderma gangrenosum intravenous immunoglobulin (IVIG) treatment



Resistant to both systemic steroids and cyclosporine responded to intravenous immunoglobulin (IVIG) treatment

Pyoderma gangrenosum intravenous immunoglobulin (IVIG) treatment 2



Resistant to systemic steroids, responded to intravenous immunoglobulin (IVIG) treatment

OP-25 [Contact and Occupational Dermatitis]

Analysis of Patch Test Results in Adult Patients in Adana Province; Single Center Experience

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Introduction: Allergens that cause sensitization in allergic contact dermatitis (ACD) may vary between populations and may even change over the years due to environmental factors.

Objectives: The aim of the study is to determine the frequency of sensitizing allergens in patch testing in Adana between 01 January 2018 and 01 February 2024.

Materials and METHODS: Patch test results of 1001 patients who underwent European Standard Series (ESS) with suspected ACD were evaluated from their files.

RESULTS: The mean age of the patients was 41.66+12.63 years (median: 41, range: 18-82) and 66.7% were women. The rate of at least one positivity as a result of the patch test was 45.3%. The rate of at least one positivity before December 2023 was 44.8%, and after that it was 48.8%. Before December 2023, the top four allergens were nickel sulfate (22%), potassium dichromate (7.3%), cobalt chloride (6.2%) and formaldehyde (4%). After December 2023, the top four allergens were nickel sulfate (18.7%), cobalt chloride (8.9%), p-Phenylenediamine (4.9%) and propolis (4%), respectively. European Standard Series allergen sensitivity distribution is given in Table-1.

CONCLUSIONS: Although the most frequently observed allergen in the ESS patch test in the adult population in Adana province is nickel sulfate before and after December 2023, the prevalence of allergen sensitivity may change over the years.

Keywords: Allergic contact dermatitis, European standard series, patch test, nickel sulfate

Table-1: European Standard Series allergen sensitivity distribution

Table-1: European Standard Series allergen sensitivity distribution			
Before December 2023 (n=878)	n (%)	After December 2023 (n=123)	n (%)
Potassium dichromate	64 (7.3)	Potassium dichromate	2 (1.6)
p-Phenylenediamine	25 (2.8)	p-Phenylenediamine	6 (4.9)
Thiuram mix	25 (2.8)	Thiuram mix	2 (1.6)
Neomycin sulfate	2 (0.2)	Neomycin sulfate	3 (2.4)
Cobalt chloride	54 (6.2)	Cobalt chloride	11 (8.9)
Benzocaine	10 (1.1)	Caine mix	1 (0.8)
Nickel sulfate	193 (22)	Nickel sulfate	23 (18.7)
Clioquinol	7 (0.8)	2-Hydroxyethyl methacrylate	3 (2.4)
Colophony	7 (0.8)	Colophony	1 (0.8)
Paraben mix	1 (0.1)	Paraben mix	0 (0)
N-Isopropyl-N'-phenyl-p-phenylenediamine	7 (0.8)	N-Isopropyl-N'-phenyl-p-phenylenediamine	1 (0.8)
Lanolin alcohol	8 (0.9)	Lanolin alcohol	1 (0.8)
Mercapto mix	6 (0.7)	Mercapto mix	0 (0)
Epoxy resin	9 (1)	Epoxy resin	2 (1.6)
Myroxylon pereirae resin (Balsam of Peru)	27 (3.1)	*Myroxylon pereirae* resin (Balsam of Peru)	1 (0.8)
p-tert-Butylphenol formaldehyde resin	6 (0.7)	p-tert-Butylphenol formaldehyde resin	1 (0.8)
2-Mercaptobenzothiazole (MBT)	7 (0.8)	2-Mercaptobenzothiazole (MBT)	0 (0)
Formaldehyde	35 (4)	Formaldehyde	1 (0.8)
Fragrance mix I	20 (2.3)	Fragrance mix I	2 (1.6)
Sesquiterpene lactone mix	5 (0.6)	Sesquiterpene lactone mix	0 (0)
Quaternium 15	5 (0.6)	Sodium Metabisulfite	2 (1.6)
Primin (2-Methoxy-6-N-Pentyl-4-Benzoquinone)	6 (0.7)	Propolis	4 (3.3)
Methylchloroisothiazolinone/ methylisothiazolinone	13 (1.5)	5-Chloro-2-methyl-4-isothiazolin-3-one	1 (0.8)
Budesonide	16 (1.8)	Budesonide	2 (1.6)
Tixocortol-21-pivalate	2 (0.2)	Tixocortol-21-pivalate	0 (0)
Methyldibromo glutaronitrile	15 (1.7)	Methyldibromo glutaronitrile	1 (0.8)
Fragrance mix II	31 (3.5)	Fragrance mix II	0 (0)
Hydroxyisohexyl 3-cyclohexene carboxaldehyde	2 (0.2)	Methylisothiazolinone	1 (0.8)
Methylisothiazolinone	17 (1.9)	Benzisothiazolinone	3 (2.4)
Textile dye mix	32 (3.6)	Decyl Glucoside	0 (0)

OP-26 [Dermoscopy]

Clinical and dermoscopic findings of the basal cell carcinomas on the head and neck region

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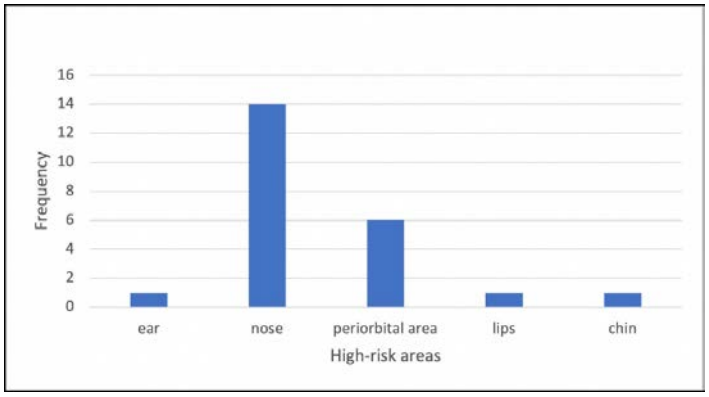
Introduction & OBJECTIVES: Basal cell carcinoma (BCC), the most common cancer of the skin, is a slow-growing, locally invasive skin tumour that arises from the basal layer of the epidermis. Since sun exposure is one of the risk factors, BCCs mostly originate from the head and neck region. A significantly higher risk of recurrence was determined for BCCs located on the mask area of the head. The study aimed to evaluate the distribution of the BCCs in terms of high and middle-risk areas on the head and neck and to determine their clinical and dermoscopic features.

Materials & METHODS: Clinical and dermoscopic features of 61 histopathologically proven BCCs on the head and neck were retrospectively analyzed.

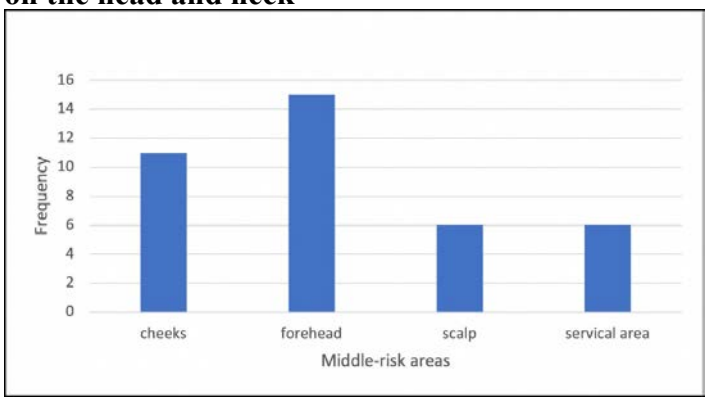
RESULTS: The study included 61 tumours from 57 patients in a single university hospital in Turkey, from 2015 to 2022. Twenty-five of the patients were males (43.9%) and 32 were females (56.1%), with an overall mean age at diagnosis of 63.6±13 years. Of the 61 BCCs on the head and neck, 23 (37%) were located on the high-risk areas and 38 (62.3%) were in the middle-risk areas. There was no statistically significant difference in the distribution of BCCs on the head and neck between the males and females (p:0.76). The forehead was the most frequent area of the lesions while the nose was the most common location among the high-risk areas. The detailed locations of the BCCs are given in Figure 1. Forty-two of the BCCs were clinically pigmented and 19 were non-pigmented. The most common colours were blue-grey (21.3%) and the combination of blue-grey and light brown (13.1%). On clinical examination 31.1% of the lesions had ulceration. Large blue-grey ovoid nests were the most common dermoscopic finding among the pigmented structures. The most frequent vascular structures were short-fine telangiectasia and arborizing vessels (37.7% and 31.1%; respectively). Dermoscopic findings of the BCCs are given in Table 1. The rates of vascular structures including arborizing vessels, short-fine telangiectasias, dotted vessels, linear irregular vessels and polymorphous vessels were significantly higher in clinically non-pigmented BCCs than the pigmented BCCs. Shiny white-red structureless background were observed significantly more frequently in clinically non-pigmented BCCs than the pigmented BCCs (Table 2). CONCLUSIONS: Approximately one-third of lesions in the head and neck region were clinically nonpigmented which may cause difficulty in dermoscopic diagnosis. Vascular structures and shiny white-red structureless background were the significant dermoscopic findings in distinguishing the non-pigmented BCCs from the pigmented BCCs. Clinically non-pigmented BCCs can reveal blue-grey ovoid nests, globules and concentric structures in the dermoscopic evaluation. There was no significant difference in the distribution of the pigmented and non-pigmented BCCs in terms of high or middle-risk region.

Keywords: basal cell carcinomas, head and neck, dermoscopy

Distribution of the BCCs on the high-risk areas on the head



Distribution of the BCCs on the middle -risk areas on the head and neck



Dermoscopic features of the basal cell carcinomas on the head and neck

Pigmented structures	Number (%)
Large blue-grey ovoid nests	30 (49.2)
Multiple blue-grey dots and globules	20 (32.8)
Multiple in-focus dots	7 (11.5)
Leaf-like areas	7 (11.5)
Spoke wheel areas	4 (6.6)
Concentric structures	21 (34.4)
Vascular structures	
Arborizing vessels	19 (31.1)
Short-fine telangiectasia	23 (37.7)
Dotted vessels; hairpin vessels	11 (18)
Linear irregular vessels	20 (32.8)
Hairpin vessels	1 (1.6)
Polymorphous vessels	10 (16.4)
Shiny white-red structureless background	38 (62.3)
Blue-white veil	18 (29.5)
Ulceration	21 (34.4)
Multiple small erosions	3 (4.9)
Fiber sign	3 (4.9)
Keratin mass	5 (8.2)
Central keratin	1 (1.6)
Homogenous blue grey structureless areas	3 (4.9)

Dermoscopic features of the clinically pigmented and non-pigmented basal cell carcinomas on the head and neck

	Clinically pigmented BCCs (Total number:42) n(%)	Clinically non-pigmented BCCs (Total number:19)(n(%)	p
Localizations High-risk area Middle-risk area	16 (38.1) 26 (61.9)	7 (36.8) 12 (63.2)	0.9
Pigmented structures			
Large blue-grey ovoid nests	28 (66.7)	2 (10.5)	<0.001
Multiple blue-grey dots and globules	16 (38.1)	4 (21.1)	0.18
Multiple in-focus dots	7 (16.7)	0	-
Leaf-like areas	6 (14.3)	1 (5.3)	0.3
Spoke wheel areas	4 (9.5)	0	0.001
Concentric structures	20 (47.6)	1 (5.3)	
Vascular structures			
Arborizing vessels	8 (19)	11 (57.9)	0.002
Short-fine telangiectasia	10 (23.8)	13 (68.4)	0.001
Dotted vessels	3 (7.1)	8 (42.1)	0.002
Linear irregular vessels	9 (21.4)	11 (57.9)	0.005
Hairpin vessels	0	1 (5.3)	-
Polymorphous vessels	1 (2.4)	9 (47.4)	<0.001
Ulceration	11 (26.2)	8 (42.1)	0.2
Shiny white-red structureless background	20(47.6)	18 (94.7)	<0.001
Shiny white areas	11 (26.2)	9 (47.4)	0.1
White clods	11(26.2)	8 (42.1)	0.2

OP-27 [Dermatopathology]

Relation Between Demographic Status And Clinical Characteristics In Kaposi Sarcoma A Single Center Study

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Kaposi Sarcoma is an angioproliferative tumor that was first described by Moritz Kaposi in 1872. He described the classical form of the disease. In the 1950s, a more aggressive form known as the endemic form was described in sub-Saharan Africa, affecting young African adults and children. In the following decade, an iatrogenic form had been described in patients who were transplant recipients and receiving aggressive immunosuppressive therapies. Then, in the 1980s, the epidemic form had been described in HIV positive patients (2). As historically described before, this disease has 4 clinical types; The Classic type is typically found in old Mediterranean men and usually keeps a benign course. It predominantly occurs in immunocompetent patients (4). Endemic form occurs in young adult to adult African men and children of both sexes. It is the most frequently occurring tumor in HIV-negative and HIV-positive patients in Central Africa, accounting for 50 percent of tumors reported in men in some countries. An aggressive lymphadenopathic form of the disease affects African children in particular. The iatrogenic type is associated with immunosuppressed patients like organ transplant recipients, chronic corticosteroid users, and chemotherapy recipients. As shown in previous studies, the risk of disease in organ transplant recipients changes between 0.5 percent to 5.3 percent. This type tends to be aggressive, involving lymph nodes, mucosa, and visceral organs. The epidemic type is related to AIDS. It is especially prevalent in patients with <200 CD4+ T□cells. Kaposi sarcoma in people with HIV is considered a sign of progression to AIDS. Regardless of the different clinical types, all Kaposi sarcomas are caused by HHV-8 or Kaposi sarcoma-associated herpesvirus (KSHV). Visceral involvement most frequently occurs in the lungs and gastrointestinal tract and is usually seen in the epidemic type. Previously, there have been few studies that demonstrated the clinical and demographic characteristics of the Kaposi sarcoma, and there is only one other study that subjects our country. With this study, we aim to depict the link between clinical characteristics and demographic variables. In this study, a retrospective cohort study was done to evaluate the clinical and demographic characteristics of patients with Kaposi sarcoma of all types. The medical records of patients with Kaposi sarcoma who got histopathologic diagnosis in our department between 2009 and 2023 were retrospectively reviewed. The demographic (age, gender, place of birth, blood type, alcohol usage, and smoking status) and clinical (KS subtype, HIV serology status, disease stage, primary site of involvement, mucosal and systemic involvement) characteristics were recorded. In all patients, the HHV8 immunohistochemistry study demonstrated positive staining.

Keywords: Kaposi sarcoma, HIV, HHV-8

OP-28 [Corrective, Aesthetic and Cosmetic Dermatology]

The improvement of a hard-to treat condition with nanofat injection: Facial papules related to frontal fibrosing alopecia

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INTRODUCTION: Frontal fibrosing alopecia (FFA) is a lymphocytic cicatricial alopecia. FFA most frequently occurs in postmenopausal women but may also start in younger ages and men. The typical clinical feature is hair loss within the eyebrow and frontotemporal scalp regions. An increasingly described clinical feature for FFA patients is rough skin- to yellow-coloured facial papules occurring in a symmetrical pattern on the temples, forehead, cheeks and chin. Facial papules may be associated with involvement of vellus hair follicles. It appears more in men and premenopausal women and

associated with worse prognosis. Only limited data exist about the management of facial papules of frontal fibrosing alopecia. For the first time, this case report describes the remarkable treatment results of nanofat injection for facial papules associated with FFA.

Case Report: A 42-year-old female with FFA presented with a 5-year history of asymptomatic, skin-coloured waxy facial papules. The patient received hydroxychloroquine, cyclosporine, pioglitazone and methotrexate with minimal clinical benefit for FFA. On 2021, laser resurfacing was suggested to improve the facial skin. The patient received 2 full-field Erbium: Yag laser sessions and experienced a flare of acne vulgaris lesions. She was prescribed isotretinoin. After a year of continuous isotretinoin treatment, laser and isotretinoin treatments provided moderate improvement. On December 2023, nanofat was suggested as an alternative approach. Nanofat was prepared from the manual lipoaspiration material and 20 ml of the product was applied to the facial skin. Three months later, the patient reported an excellent satisfaction score and a remarkable improvement was detected by the physicians.

CONCLUSIONS: Facial papules in FFA have been reported up %3 to 22% of cases and associated with facial vellus hair follicle involvement. As the condition occurs within post-menopausal women, the connection between the skin lesions and alopecia is commonly overlooked. Many patients regard the skin lesions as a natural consequence of the aging process. A limited number of case reports define a potential benefit with topical and systemic retinoids. In a pre-menopausal women experiencing a major QoL disturbance related to facial lesions, we performed different treatment approaches such as ablative laser resurfacing, systemic isotretinoin and nanofat. Upon the evaluation of these treatments, nanofat was considered the most effective approach.

Keywords: frontal fibrosing alopecia, nanofat, facial papules

OP-29 [Cutaneous Oncology]

Radiotherapy of Basal Cell Carcinoma: A Single-Centre Experience From The Eastern Black Sea Region of Turkey

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Aim: Basal cell carcinoma originating from undifferentiated cells of the basal cell layer of the epidermis or the outer root sheath of the hair follicle is the most common malignant tumor of the skin. Surgical excision, cryotherapy, curettage and radiotherapy are the different treatment options for the disease, and the most common of these is excision. Material and METHODS: Of the 116 patients included in this study, 67 (58%) were male and 49 (42%) were female. The mean age of the patients was 70 ± 11.21 years (age range: 40–95 years), and the mean follow-up was 38 months (range, 1–260 months). The primary tumor sites included the head and neck (101 patients, 87%), extremities (6 patients, 5%), and body (9 patients, 8%). About 65% of the lesions found were nodular, 22% were superficial, 9% were infiltrative, and 4% were pigmented.

RESULTS: The three-year loco-regional survival, relapse-free survival, and overall survival rates were 78% [95% confidence interval (CI): 72–90], 75% (95% CI: 70–86) and 82% (95% CI: 78–92), respectively. Cosmetic results were good in 32% of the patients, acceptable in 50%, and worse in 18%.

CONCLUSION: Surgery is the most effective method to treat Basal cell carcinoma. Radiotherapy is applied to advanced age, recurrence, positive surgical borders and localization to the head and neck.

Keywords: Basal cell carcinoma, Radiotherapy,loco-regional survival, relapse-free survival, overall survival

Clinical characteristics of 116 lesions of basal cell carcinoma.

	n (%)
LOCALİZATİON	
Head and neck	101 (87%)
Nasal	24 (24%)
Scalp	4 (4%)
Face (peri-orbital, cheek, forehead)	64 (64%)
Peri-auricular	6 (6%)
Neck	3 (3%
Extremity	6 (5%)
Body	9 (8%)
CLİNİCAL TYPE	
Nodular and nodular-ulcerative	75 (65%)
Superficial	26 (22%)
Infiltrative	10 (9%)
Pigmented	5 (4%)

OP-30 [Hair Disorders/Diseases]

Investigation of Androgenetic Alopecia Risk Factors And HLA Alleles Relationship

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BACKGROUND: Androgenetic alopecia (AGA) is the most common cause of hair loss. Although medically benign, it has a significant psychosocial impact on patients. This study aims to investigate metabolic and dermatologic diseases, blood group, presence of atopy, serum vitamin D level, alcohol and cigarette use, and HLA-DR B1 allele positivity in patients with AGA and to provide early diagnosis of these patients.

METHODS: The data of 85 male patients with AGA diagnosed by history and clinical examination between October 2017 and October 2018 in Mersin University Faculty of Medicine, who had stage II or more severe AGA according to Hamilton-Norwood classification, were retrospectively analyzed.

RESULTS: According to Hamilton-Norwood classification, 25.9% were stage 2, 20% were stage 3, 15.3% were stage 4, 14.1% were stage 5, 14.1% were stage 6 and 10.6% were stage 7. It was observed that 85.9% of the patients had a family history of hair loss. Metabolic syndrome (MetS) was observed in 36.5%. There were no statistical differences in the rates of AGA between smokers/alcohol users and nonsmokers/alcohol. Patients with low vitamin D3 levels had a significant higher incidence of AGA than patients with normal levels. In the distribution of HLA-DRB1 allele frequencies, HLA-DR-B1*01, HLA-DRB1*04 and HLA-DRB1*11 positivity were found more frequently. When the specific subtypes of alleles were analyzed, DR-B1*04 11, DR-B1*11 11 and DR-B1*11 13 positivity was higher.

CONCLUSIONS: Comprehensive studies should be conducted to elucidate the polygenic inheritance of AGA patients and patients should be followed up at regular intervals due to the increased risk of MetS in these patients.

Keywords: Androgenetic alopecia, Metabolic syndrome, HLA-DR B1

OP-31 [Autoimmune Bullous Diseases]

Comorbidities in Patients with Pemphigus: A Retrospective Case-Control Study

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OBJECTIVE: Pemphigus is a rare autoimmune bullous disease characterized by intraepithelial blister formation and autoantibodies against structural adhesion proteins known as desmogleins. Although there are studies in the literature investigating associated comorbidities in pemphigus, data are insufficient to distinguish the association of comorbidities with the disease itself from those related to corticosteroid treatment. In this study, our aim was to identify the comorbidities

present in pemphigus patients at the time of diagnosis, compare them with those of the control group, and assess the relationship between comorbidity presence and variables such as age, sex, diagnostic delay, and disease severity (mild and moderate/severe) in pemphigus patients.

MATERIALS-METHODS: In our study, 91 patients with pemphigus who were followed up at our bullous diseases outpatient clinic at Bakırköy Dr. Sadi Konuk Training and Research Hospital, Department of Dermatology between 2014 and 2023, and 91 age- and sex-matched control patients were analyzed.

RESULTS: Pemphigus patients were 55% female and 45% male, with a mean age of diagnosis of 49.46±14.68 years. 78% of the patients were followed up with pemphigus vulgaris and 9.9% with pemphigus foliaceus. The mean duration of diagnostic delay was 7.40±7.42 months. There was no statistically significant association between comorbidity status (presence/absence) and gender, disease severity or diagnostic delay duraiton. Autoimmune thyroid diseases, non-cutaneous malignancies, osteopenia, and psychiatric diseases were observed more frequently in pemphigus patients compared to controls. Osteopenia and psychiatric disorders were found to be significantly associated with pemphigus.

CONCLUSION: Comorbidities, particularly autoimmune thyroid diseases, internal malignancies, osteopenia, and psychiatric disorders, should be taken into account when managing a patient with pemphigus. Screening of patients with comprehensive multidisciplinary approaches and continuous monitoring of pemphigus patients are essential to ensure effective control of the disease and to minimise mortality.

Keywords: Pemphigus, Comorbidity, Treatment, Corticosteroids, Epidemiology

OP-32 [Infectious Diseases, Parasitic Diseases, Infestations]

Crusted Scabies Cases in Immunosuppressed Patients: Case Series

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PURPOSE: Crusted scabies is a rare variant of classical scabies and characterized by the presence of thousands of sarcopts on the patient's body. People with compromised immune systems, such as patients with malignancies, Down syndrome and the elderly, are at risk for this disease. It is highly contagious and early diagnosis of the disease is very important for infection control. In this report, it is aimed to present 2 cases of crusted scabies and discuss their clinical features and treatment modalities.

Case 1: A 58-year-old female patient, who received her last course of chemotherapy due to lung cancer 1 month ago, applied to our outpatient clinic with the complaint of rash all over her body for 2 weeks. The patient was started on 32 mg methylprednisolone treatment at another clinic 2 weeks ago, considering a drug reaction. The patient used this treatment for 8 days but rashes increased. In her examination; There were erythematous papules on the trunk and hyperkeratotic plaques on an erythematous basis in the bilateral lower extremities and inguinal region (Figure 1a-b-c). Burrows were seen on dermoscopic examination. Sarkoptes scabiei was detected in the microscopic examination of the scraping taken from the patient's thigh (Figure 1d). The patient was diagnosed with crusted scabies and treated with 18 mg systemic ivermectin on days 1, 2, 8, 9, and 15 at a dose of 200 ug/kg and daily topical permethrin for 1 week. At the follow-up visit 2 weeks later, the patient's lesions had almost completely resolved.

Case 2: A 52-year-old male patient living in a nursing home with Down syndrome applied to our outpatient clinic with hyperkeratotic lesions on his hands for 3 months. He had previously been given occlusion treatment with salicylic acid-clobetasol propionate at another clinic, but there was no regression in the lesions.

On examination of the patient, there were hyperkeratotic plaques between the fingers and on the dorsum of the hand, and erythematous papules on the trunk and penis (Figure 2).Burrows were detected in dermoscopy. The patient was started on systemic ivermectin and daily permethrin for one week. The lesions of the patient, who came for control in the first month, completely resolved.

CONCLUSION: Crusted scabies is rare, treatable infestation that can be ignored in daily practice and negatively affects daily life. It can be confused with many dermatological diseases such as psoriasis or drug reactions. It should be considered in the differential diagnosis in patients with hyperkeratotic lesions in the body that are resistant to classical treatment. Diagnosis can be made with a good anamnesis, dermoscopic examination, and microscopic examination of skin scrapings therefore secondary complications can be prevented.

Keywords: Crusted scabies, Immunosuppressed patients, Systemic ivermectin

Figure 1a-b-c-d

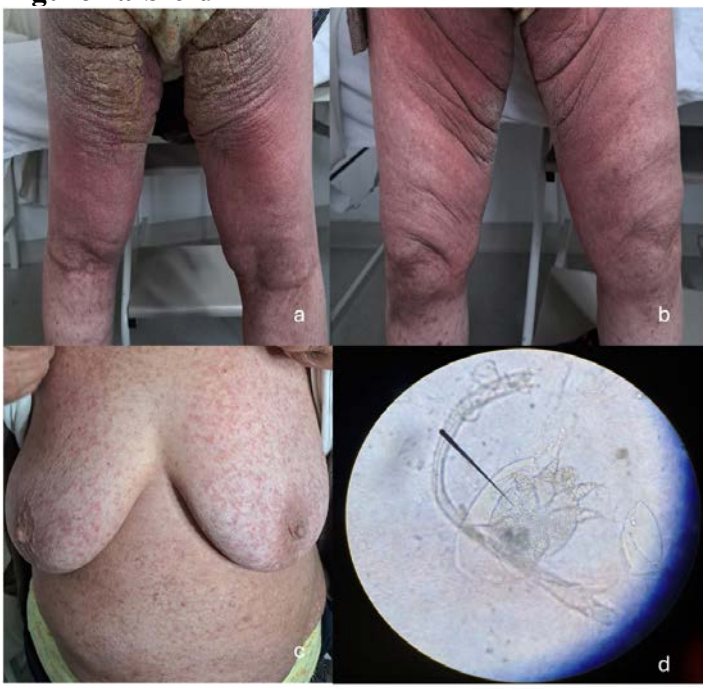
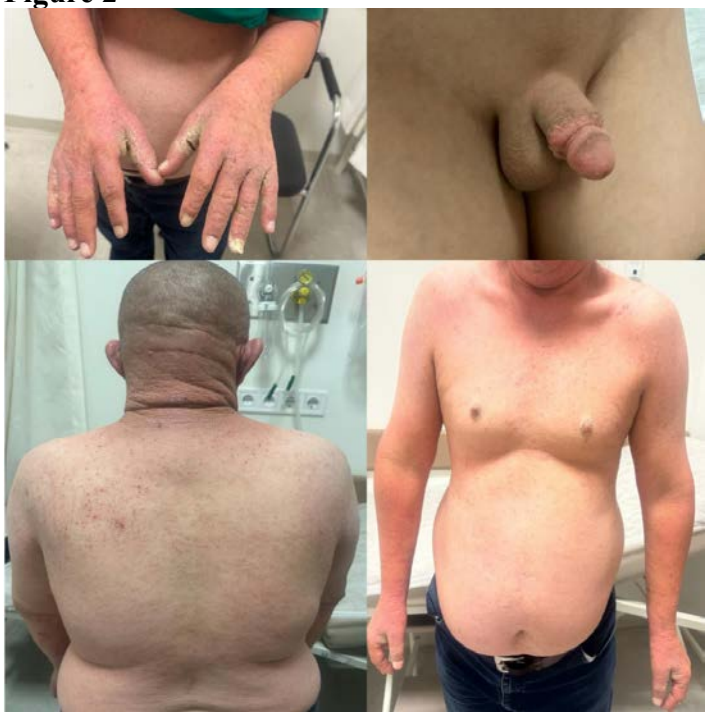


Figure 2



OP-33 [Cutaneous Oncology]

Benign Hair Follicle Tumors in a Tertiary Center Dermatology Clinic: A Retrospective Analysis

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Introduction&Objectives: Adnexal tumors are a heterogenous group of skin tumors classified according to their differentiation characteristics. Hair follicle tumors, an often-overlooked group of tumors, are those exhibiting a follicular differentiation and are usually benign in nature. The most common malignant hair follicle tumor is basal cell carcinoma (BCC). In this study, we aimed to retrospectively analyze hair follicle tumors other than BCC.

METHODS: Patients that were seen in our clinic and got a pathological diagnosis of a hair follicle tumor between 2017-2024 were searched through our institution's patient database. Demographic, clinical and histopathologic findings were recorded.

RESULTS: Of the 23 patients included, 9 (37.5%) were male and 14 (62.5%) were female. The distribution of diagnoses, sexes, mean ages, and locations are given in Table 1. 5 of the 14 pilomatrixoma patients (35.7%) were in the pediatric age group. Only 2 patients had preliminary diagnoses consistent with their definitive diagnosis (both pilomatrixomas), and 2 patient's preliminary diagnoses included adnexal tumors other than their pathologic diagnosis. One of the trichoblastomas had arisen over a pre-existing sebaceous nevus, together with syringocystadenoma papilliferum. The female patient with tricholemmoma had Gorlin syndrome and a history of multiple BCCs. 6 patients had dermoscopic images available.

CONCLUSIONS: Benign hair follicle tumors are a large group of entities. Differential diagnoses depend on the type of tumor but include BCC, squamous cell carcinoma, dermal nevi, cysts, and dermatofibroma. These tumors are not uncommon but hard to diagnose, both clinically and histopathologically. Accordingly, most of our preliminary diagnoses were not consistent with the definitive pathology. Except for pilomatrixomas, which are frequently seen in children, all patients were adults. Hair follicle tumors are mostly seen in the head and neck region, which were the most frequent involvement sites in our study. One of the predilection sites for pilomatrixomas, however, is the extremities. Trichoblastomas are the most common tumor arising from sebaceous nevi, which was the case for one of our patients. Overall, we believe it is important to get familiar with hair follicle tumors and keep them in mind for the differential diagnosis of patients with tumors in the head and neck area.

Keywords: adnexal tumors, hair follicle tumors, pilomatrixoma, trichoblastoma, trichoepithelioma

Table 1

Diagnosis	Count	Sexe		Age	Location
	N(%)	Female N(%)	Male N(%)	Mean (min-max)	N(%)
Pilomatrixoma	14 (60.8%)	8 (57%)	6 (43%)	29.4 (2-65)	Face: 6 (42.9%) Extremities: 5 (35.7%) Scalp: 2 (14.3%) Body: 1 (7.1%)
Trichoepitelioma	4 (14.4%)	3 (75%)	1 (25%)	54.3 (34-77)	Face: 3 (100%)
Trichoblastoma	3 (14.0%)	2 (66.6%)	1 (33.3%)	56.7 (50-65)	Face: 2 (66.6%) Scalp: 1 (33.3%)
Trichilemmoma	2 (8.7%)	1 (50%)	1 (50%)	46 (36-56)	Face: 1 (50%) Scalp: 1 (50%)
Total	23 (100%)	14 (37.5%)	9 (62.5%)	39.1 (2-77)	

Diagnoses, demographic and clinical features of hair follicle tumor patients included in the study.

OP-34 [Psychodermatology]

The relationship between psychological distress and neurotrophins in patients with alopecia areata: a cross-sectional study

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INTRODUCTION: Alopecia areata (AA) is a common, chronic, autoimmune disease that causes psychological effects on patients. Distress and psychological factors play roles in the onset and flares of the disease. AIM: We aimed to evaluate the relationship between neurotrophins and psychological distress in AA patients.

MATERIAL-METHODS: The study included 50 AA patients and 50 healthy volunteers as a control group. The distress tolerance scale (DTS) and the depression anxiety stress scale-21 (DASS-21) were used in the evaluation of psychological distress. Serum levels of neurotrophins [brain-derived neurotrophic factor (BDNF), nerve growth factor (NGF), neurotrophin-3 (NT-3), and neurotrophin-4 (NT-4)] were measured. ‘’This study was supported by the Eskisehir Osmangazi University Scientific Research Projects Commission”

RESULTS: Scores of DASS-21 were found to be higher, and scores of DTS were found to be lower in AA patients. Serum BDNF and NT-3 levels did not differ significantly between groups. While the serum NGF level was found to be significantly higher, the NT-4 level was found to be significantly lower in the AA group than in the control group. In the AA group, a same-way significant relationship was found between BDNF and stress subscale scores; in the control group,

no significant correlation was found between serum neurotrophin levels and DASS-21 and DTS scores.

CONCLUSION: Our study supports the relationship between AA and psychological factors such as depression and anxiety, and neurotrophins. More studies are needed to investigate the relationship between AA and stress neuroimmunology to better understand the common pathophysiology of AA, stress, and various psychiatric diseases.

Keywords: alopecia areata, neurotrophin, psychological stress

OP-35 [Cutaneous Oncology]

Radıotherapy of Malign Melanoma: A Sıngle Instıtutıon Experıence From North East Turkey

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AIM: Malign Melanoma (MM), known as the most aggressive form of skin cancer, originates from melanocytes, the cells responsible for pigment production. While it primarily manifests on the skin, MM can also develop in rare locations such as the eyes, gastrointestinal tract, meninges, and various mucosal layers. Despite its relatively low incidence, accounting for only 4% of skin cancers, MM stands out as the leading cause of mortality associated with skin malignancies. Early detection significantly improves survival rates. This study aims to analyze patient demographics, lesion characteristics, radiotherapy indications and dosages, as well as Disease-Free Survival (DFS) and Overall Survival (OS) rates among MM patients treated at our clinic.

MATERIALS-METHODS: The study was conducted on 94 patients with skin MM, radiotherapy and followed up in our clinic between January 1996 and December 2023. Patients' information about their age, gender, surgical treatment, local recurrence, distant metastases, and survival were recorded.

RESULTS: The study comprised 94 patients, with 58 (62%) being men and 36 (38%) women, reflecting a female-to-male ratio of 1:1.6. The mean age was 63.04±12.89 years, with females slightly older (mean age: 63.26±12.05 years) than males (mean age: 62.9±9.98 years). Primary tumor sites were predominantly in the head and neck (33%), extremities (46%), and body (21%). Thirty-five patients underwent adjuvant radiotherapy, with a median follow-up of 42.65 months. Eight percent experienced local recurrence, mainly in inguinal lymph nodes and nasal septum. Distant metastases occurred in 11% of patients post-treatment, affecting the brain, bone, and non-regional lymph nodes. OS time for adjuvant radiotherapy patients was 67.93 months. Metastases developed in 55 patients, primarily in the brain (67%), bone (22%), and non-regional lymph nodes (11%). OS varied among metastatic patients, with brain metastasis having the shortest survival (4.22 months), followed by lymph nodes (7.33 months) and bone metastasis (7.6 months).

CONCLUSIONS: Postoperative RT likely improves locoregional control in patients at high risk for disease recurrence after surgery. This would include patients with close (≤1 cm) or positive surgical margins at the primary site who are not suitable for reexcision as well as those with locally recurrent disease at the primary site. In addition, it would include patients with high-risk features such as multiple positive lymph nodes or extracapsular extension after lymph node dissection. Although surgery and adjuvant RT provides excellent locoregional control, distant metastases remain the major cause of mortality. RT also aids in alleviating metastasis-related symptoms, underscoring the importance of a multidisciplinary approach involving surgery, radiotherapy, chemotherapy, and immunotherapy, especially in advanced metastatic stages.

Keywords: Skin tumor, Malign Melanoma, Radiotherapy.

Patient characteristics

Region	94 (24%)
Age	63.04±12.89 (range: 22-95)
Female	63.26±12.05 (range: 22-95)
Male	62.9±9.98 (range: 27-92)
Head and neck	31 (33%)
Nose	2(2%)
Forehead	3(3%)
Peri-auricular	2(2%)
Neck	3(3%)
Scalp	21(23%)
Extremity	44 (46%)
Upper Extremity	21 (22%)
Lower Extremity	23 (24%)
Body	19 (21%)

OP-36 [Hair Disorders/Diseases]

Female Pattern Hair Loss and Hirsutism: Is there a relationship with disease subtype?

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INTRODUCTION: Androgenetic alopecia is a common cause of hair loss in female patients. Three subtypes of androgenetic alopecia have been defined in female patients: Hamiton, Ludwig and Olsen. It was previously shown that hirsutism was more common in the Hamilton and Ludwig subtypes than the Olsen subtype. The aim of this study is to further investigate the relationship of the Hamilton and Ludwig subtypes to hirsutism.

Patients and METHODS: This is a prospective study conducted at the dermatology outpatient clinics of two different hospitals by two seperate dermatology specialists. All female patients, willing to participate in the study and who have applied to the outpatient clinic with clinically and dermatoscopically diagnosed androgenetic alopecia were examined for clinical signs of hirsutism using the Ferriman Gallwey score. The patients with comorbid hirusitism were included in this study. Patients with an already diagnosed hormonal disease, pregnant and nursing patients were excluded. The age, androgenetic alopecia subtype, androgenetic alopecia stage and hirsutism stage of each patient was noted. The Hamilton and Ludwig scales were used to evaluate the stage of androgenetic alopecia. The Hamilton scale was modified into three stages in order to match with the Ludwig Scale: Hamilton stages 2 and 3 were grouped as modified stage 1; stages 4 and 5 were grouped as modified stage 2; and stages 6 and 7 were grouped as modified stage 3. Hirsutism was evaluated using the Ferriman Gallwey score; scores up to 12 (out of 36) were grouped into mild, score between 13 and 24 were grouped as moderate and scores above 24 were grouped as severe. The statistical analysis was performed using SPSS version 21.

RESULTS: A total of 34 female patients were included in this study. The mean age of the patients was 24.79 years. Of the patients, 35.3% had alopecia of Hamilton subtype and 64.7% had Ludwig subtype. The clinical characteristics of the patients is summarised in Table 1. Among the patients, no relationship between the subtype of alopecia, stage of alopecia and patients age was found. (shown in Table 2) The mean age of the patients with moderate to severe hirsutism was found to be lower than patients with mild hirsutism (p=0.035). However, no difference was found between the subtype or the stage of androgenetic alopecia in their relationship to the stage of hirsutism. (Table 3)

CONCLUSION: Hirsutism can co-exist with Hamilton and Ludwig types of androgenetic alopecia. There is no difference between the subtype or the stage of androgenetic alopecia in terms of their relationship to the stage of hirsutism.

Keywords: androgenetic alopecia, female pattern hair loss, hirsutism

table 1

Table 1

	n=34 n (%)
Age	24.79±6.08
AGA subtype	
Hamilton	12 (35.3)
Ludwig	22 (64.7)
AGA stage	
1	27 (79.4)
2	6 (17.6)
3	1 (2.9)
Hirsiutism stage	
mild	8 (23.5)
moderete	22 (64.7)
severe	4 (11.8)

table 2

Table 2.

	AGA		
	Hamilton n=12 n(%)	**Ludwig** n=22 n(%)	
Age (median (IQR)	26.5(19.25-30)	22(20-28.25)	0.466*
AGA stage			
1	10 (83.3)	17 (77.3)	1.00**
2-3	2 (16.7)	5 (22.7)	

*independant t test, **Fisher's extract test.

table 3

Table 3.

	Hirsiutism Stage		
	Mild n=8	**Moderate- Severe** n=26	
Age (median (IQR)	28.5 (24-33)	22 (18.75-27.25)	**0.035***
AGA			
Hamilton	4 (50)	8 (30.8)	0.410**
Ludwig	4 (50)	18 (69.2)	
AGA stage			
1	7 (87.5)	20 (76.9)	1.00**
2-3	1 (12.5)	6 (23.1)	

*independant t test, **Fisher's extract test.

OP-37 [Cutaneous Oncology]

Can iris freckles be a predictor for basal cell carcinoma? A case-control study

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Introduction&Objectives. Cutaneous basal cell carcinoma (BCC) originating from nonkeratinized cells in the epidermis is the most common malignant tumor of the skin. Identifying the population at risk for BCC may decrease its development. Although phenotypic characteristics such as calculation of cumulative ultraviolet exposure, history of sunburn in childhood, and light skin types have been shown to be associated with BCC, there is a need for rapid and practical indicators appropriate for daily clinical practice to identify individuals at high risk for BCC development. We aimed to determine the possible association of eye color, iris freckles, hair color, and skin type with BCC.

Materials & METHODS: We enrolled 70 patients over 18 years of age with a clinical and histopathologic diagnosis of BCC. A total of 70 individuals of similar age to the case group with no personal or family history of BCC, receiving treatment for other medical diseases other than BCC, were included as the control group. Age, sex, family history of BCC, occupation, smoking status, localization and size of the lesion were recorded. All participants were examined for hair color and skin type, as well as eye color and iris freckles.

RESULTS: According to the results of this study, BCC was more common in females than in males. BCC occurred significantly more commonly in farmers compared to the controls. Most of BCC lesions affected the head and neck and in 27.1% of our cases the lesion was located on malar region. There was a significant positive correlation between the presence of iris freckles and BCC development. Black hair was significantly more common in the control group compared to the case group. Eye color and skin type were not associated with BCC. No significant difference was found between the groups in terms of eye color and smoking. Familial history of BCC was not associated with an elevated risk of BCC in the case group.

CONCLUSIONS: Iris freckles could be a useful phenotypic predictor for determining individuals at risk for BCC development. Detection of the presence of iris freckles has the advantages that it is not time consuming and no special equipment is required. To clarify the association between iris freckles and BCC, more studies are needed.

Keywords: basal cell carcinoma, freckles, skin cancer

Table 1

		Case	Controls	p value
Age (mean±SD)		63.23±12.46	63.46±12.58	0.054
Sex (n/%)	Female	38 (54,2)	36 (51,4)	0.735
	Male	32 (45,8)	34 (48,6)	
Job (n/%)	Farmer	20 (28,6)	8 (11,4)	0.020
	Housewife	20 (28,6)	24 (34,3)	0.585
	Employee	15 (21,4)	16 (22,9)	0.839
	Officer	9 (12,8)	19 (27,1)	0.057
	Trader	4 (5,7)	3 (4,3)	
	Unemployed	2 (2,9)	-	
Smoking status (n/%)	Yes	25 (35,7)	26 (37,1)	0.861
	No	45 (64,3)	44 (62,9)	
Family history of BCC	No	66 (94,3)	-	
	Yes	4 (5,7)	-	

Demographic characteristics of basal cell carcinoma and control group, and presence of family history of basal cell carcinoma in the patient group (n=70)

Table 2

		N/%
Lesion location	Malar region	19 (27,1)
	Nose	12 (17,1)
	Temporal region	11 (15,7)
	Eyelid	8 (11,4)
	Maxillary region	6 (8,6)
	Scalp	6 (8,6)
	Preauricular region	4 (5,8)
	Leg	2 (2,9)
	Trunk	1 (1,4)
	Neck	1 (1,4)
Lesion size (cm2) ((median(min-max))	0.75 (0.15-22)	

Lesion location and lesion size in patients with basal cell carcinoma (n = 70)

Table 3

		Case (n=70)	Controls (n=70)	P value
Freckles	Yes	33 (47,1)	19 (27,1)	0.014
	No	37 (52,9)	51 (72,9)	
Eye color	Light brown	29 (41,4)	21 (30,0)	0.458
	Dark brown	14 (20,0)	18 (25,7)	
	Blue-grey	11 (15,8)	14 (20,0)	
	Green	8 (11,4)	12 (17,1)	
	Hazel	8 (11,4)	5 (7,2)	
Hair color	Brown	32 (45,8)	21 (30,0)	0.055
	Black	28 (40,0)	44 (62,8)	0.011
	Blonde	9 (12,8)	5 (7,2)	0.260
	Red	1 (1,4)	-	
Skin type	1	15 (21,4)	8 (11,4)	0.065
	2	29 (41,4)	36 (51,4)	
	3	26 (37,2)	22 (31,5)	
	4	-	4 (5,7)	

Comparison of freckle presence, eye color, hair color, and skin type between two groups.

Table 4

	B	S.E	Wald	df	P	OR	95% C.I (lower-upper limit)
Age	0,006	0,015	0,139	1	0,709	1,006	0,976-1,036
Sex	-0,141	0,383	0,136	1	0,712	0,868	0,410-1,839
Smoking status	-0,063	0,392	0,026	1	0,872	0,939	0,435-2,025
Freckles presence	0,964	0,391	6,088	1	0,014	2,622	1,219-5,637
Eye color	0,298	0,160	3,466	1	0,063	1,347	0,984-1,845
Hair color	0,406	0,285	2,029	1	0,154	1,500	0,859-2,621
Skin type	0,401	0,278	2,083	1	0,149	1,493	0,866-2,575
Constant	-3,924	1,803	4,738	1	0,030	0,020	

Binary logistic regression analysis to identify variables associated with basal cell carcinoma.

POSTER PRESENTATIONS

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PP-01 [Inflammatory Skin Diseases]

A Case of Penile Pyoderma Gangrenosum Respond Well to Infliximab

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Pyoderma gangrenosum (PG) is a rare, ulcerated, inflammatory, neutrophilic dermatosis. Genital involvement of PG has been rarely reported. Diagnosis of penile PG may be delayed as more common causes such as malignancy, infection, or artifact that may cause penile ulceration must be excluded. We present a case in which a patient with penile pyoderma gangrenosum, whose diagnosis was delayed, responded well to infliximab treatment.

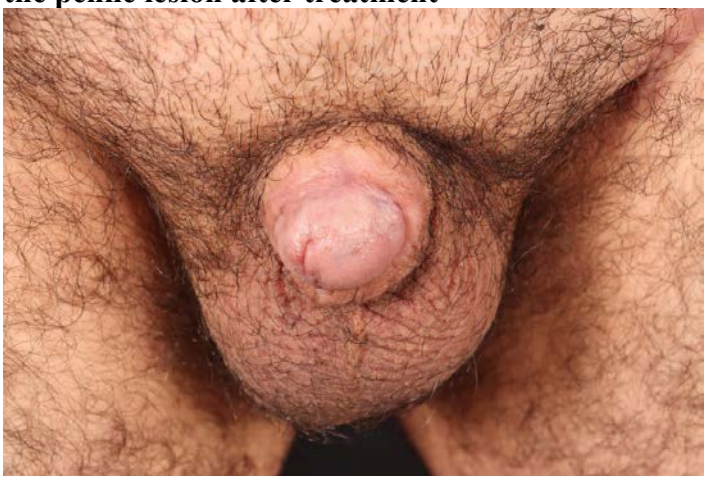
A 50-year-old male patient was admitted to our clinic with a complaint of a 2x2 cm wide ulcerated lesion on the ventral side of the penis. In 2020, he applied to an external clinic with a crusted lesion containing granulation tissue over 2.5*2.5 cm on the ventral face of the penis and genital warts. Topical corticosteroids were given considering contact dermatitis, and topical antiviral treatments were given considering scarring secondary to herpes ulcer, but there was no regression in the lesion. The lesion of the patient who applied to an external urology center was excised with cautery in January 2021. When the patient's cauterized area did not heal and a graft was taken from the left inguinal area by an external plastic surgeon in June 2021 and placed in the ulcerated area. Later, chronic inflammation and fistulation developed in the grafted area and the ulcer did not close, so the patient was given systemic steroids, 3x1 colchicine and Valacyclovir prophylactically for 6 months. Behçet's disease and sarcoidosis were excluded through examinations.

As the patient's lesion persisted, the patient applied to us in July 2023, and a 3 mm biopsy was taken from the 2x2 cm ulcerated lesion on the penis with the preliminary diagnoses of squamous cell cancer, tuberculosis, PG, bowen, extramammary Paget, extraintestinal Crohn disease, and the biopsy result was ulcer, ulcer base necrosisi chronic inflammation with abscess formation and inflammatory granulation tissue development. The patient was interned by us with the preliminary diagnosis of PG, cyclosporine 2 mg/kg/day was started and systemic steroid treatment was continued. Since the desired regression was not observed in the lesion, infliximab treatment was planned for the patient by us and an off-label application was made. A significant regression was observed in the lesion of the patient to whom we gave the third dose of infliximab.

İn conclusion a patient with penile PG treated with infliximab revealed succesful improvement. Although it is rare for PG to affect the penis, PG should also be considered in the differential diagnosis of penile ulceration and infliximab treatment is useful in the clinical management of PG.

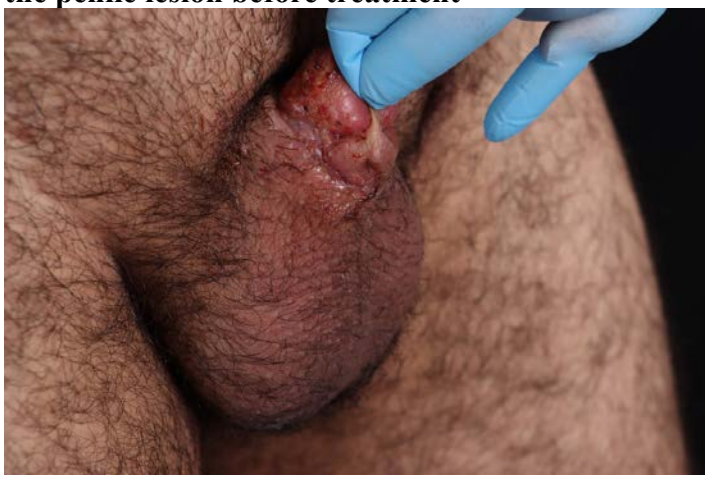
Keywords: pyoderma gangrenosum,, neutrophilic dermatosis, infliximab, penile PG

the penile lesion after treatment



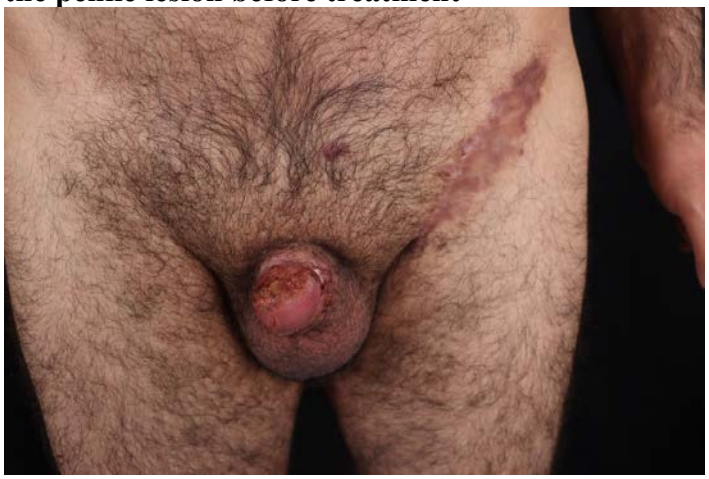
post infliximab treatment image of penile lesion

the penile lesion before treatment



ulceration on side of penis

the penile lesion before treatment



ulceration on ventral aspect of penis

PP-02 [Autoimmune Bullous Diseases]

A Rare Variant of Pemphigus: Pemphigus Vegetans of Neumann Type

Zeynep Cansu Yüce, Ibrahim Halil Yavuz, Goknur Özaydın Yavuz, Harbiye Dilek Canat, Nazlı Caf, Zafer Turkoglu
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Pemphigus is group of vesiculobullous autoimmune disease, characterized as a chronic and rare disease with cutaneous and mucosal manifestations.. Among the many types of pemphigus, the rarest clinical variant is pemphigus vegetans which distinguishes itself by forming of vegetative plaques that preferentially affecting intertriginous and periorificial areas. Two clinical subtypes of pemphigus vegetans exist, which are initially characterized by flaccid bullae and erosions (the Neumann subtype) or pustules (the Hallopeau subtype).

We are presenting an unusual case of pemphigus vegetans with extensive involvement of intertriginous areas, extremities, trunk and oral mucosa. A 72-year-old woman presented with a 2-month history of multiple vesiculobullous, erosive plaques all over her body and erosions of the oral mucosa, tongue. The skin lesions started with itching followed by eruption of clear fluid filled blisters which used to rupture quickly and resulted into erosions. The patient had been on treatment with epithelizing ointments but revealed no relief in symptoms.

On physical examination, There are eroded plaques with vivid erythema, accompanied by crusts, ranging in diameter from 5-30 cm, with the major involvement of flexural areas such as the inguinal region and popliteal fossa, especially in the lower extremities.

Based on the clinical findings diagnosis of pemphigus vegetans was made and pyodermatitis-pyostomatitis vegetans, Haiely-Haiely disease, vegetative pyoderma gangrenosum, pemphigus vegetans, bullous pemphigoid were considered as differential diagnosis.

Punch biopsy and Direct immunofluorescence (DİF) was obtained from inguinal fold.. DIF studies showed intercellular C3c deposits (2+) in the epidermis.

Indirect immunofluorescence examination was performed: IgG resulted as 1/10 +++, 1/40 ++, 1/100 ++, 1/200 +. The results of ELISA with recombinant purified desmoglein (Dsg) 1 and Dsg3 were positive for both Dsg 1 (a titer of 319 U/ml) and Dsg3 (a titer of 333 U/ml).

Based on clinical findings, histopathological findings, direct immunoflourescence, indirect immunoflourescence and desmoglein levels, a final diagnosis of pemphigus vegetans is established.

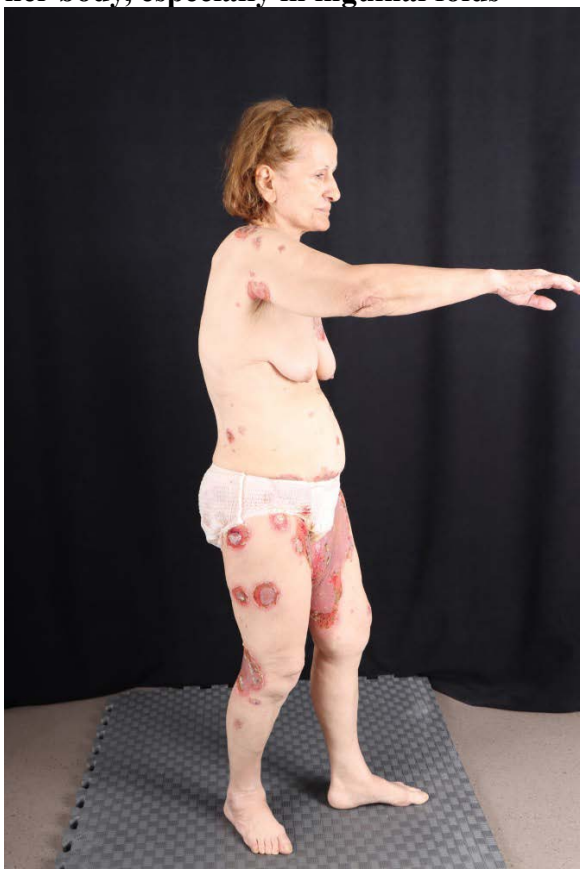
The patient was hospitalized for inpatient corticosteroid therapy. The patient was started on 80 mg iv prednol

treatment, a dose reduction was planned once in 5 day, and cyclosporin 100 mg per day. In addition to systemic therapy, clobetasole cream twice a day and a mouthwash, which contains diphenhydramine, nystatin, dexamethasone, and tetracycline, 3 times per day was used. With the treatment given, the lesions became epithelialized within 1 month and the patient's complaints resolved.

We are presenting an unusual case of pemphigus vegetans with extensive involvement of inguinal folds treated with systemic steroid and cyclosporin and revealed successful improvement in one month.

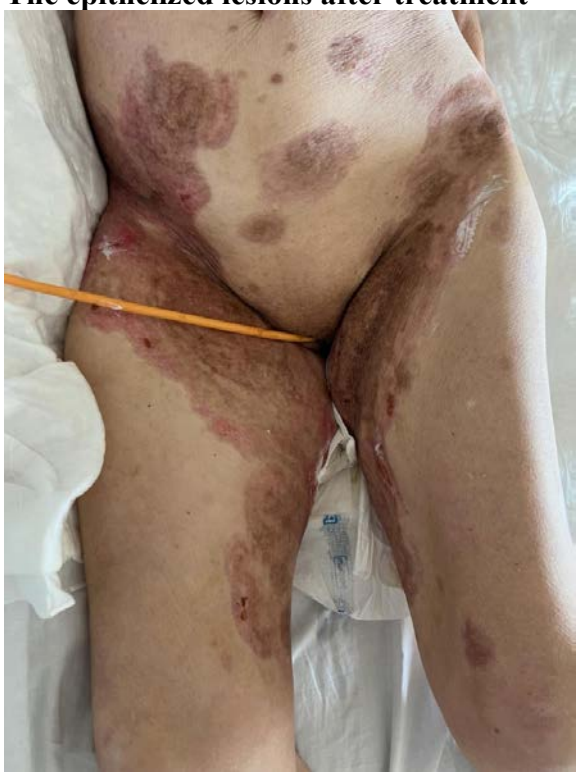
Keywords: Pemphigus, Pempigus Vegetans, Neumann

Multiple vesiculobullous, erosive plaques all over her body, especially in inguinal folds



Multiple vesiculobullous, erosive plaques all over her body, especially in inguinal folds

The epithelized lesions after treatment



PP-04 [Infectious Diseases, Parasitic Diseases, Infestations]

A case of facial herpes zoster duplex symmetricus in an immunocompetent male

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Objectives: Herpes zoster (HZ) is caused by reactivation of latent varicella zoster virus (VZV) in the sensory dorsal root ganglion. HZ most commonly presents as a painful vesiculobullous eruption on an erythematous base unilaterally within in a single dermatome. The most common nerves affected are the trunk from T3 to L2 or the trigeminal nerve. HZ can also present with atypical forms such as zoster sine herpete, multiple dermatomal HZ or even visceral HZ, which are usually encountered in immunocompromised patients. Herein I present a facial bilateral HZ at different levels of trigeminal nerve in an immunocompetent male.

Case: A 51-year-old otherwise healthy male presented to dermatology outpatient clinic with painful rash on his face. Dermatologic examination revealed grouped vesicles on an erythematous base both on right side forehead and left side superior palpebra (Figure 1). He was diagnosed with HZ and consulted with ophthalmology for ocular pathologies. Ophthalmological examination did not reveal any eye pathology. The patient's human immunodeficiency virus status was negative and consultation with internal medicine did not reveal any immunosuppression including repeated tests for hematological or solid organ malignancies. The patient threated with oral valacyclovir 1000 mg three times for seven days. Postherpetic neuralgia was not detected after treatment.

Discussion: Bilateral HZ is a rare clinical manifestation which is characterized by the typical blistering rash, except that both sides of the trunk or face are affected. This entity is named herpes zoster duplex symmetricus. If HZ occurs on two widely separated, noncontiguous dermatomes it has been referred as zoster duplex unilateralis or bilateralis, depending on body halves involvement. Although both entities are very scarce, more cases of the former have been described. A proposed pathogenesis is a high viral load infecting multiple dorsal sensory ganglia bilaterally, in a relatively suppressed cellular immunity environment. Reactivation of VZV in multiple ganglia in immunocompetent adults emphasizes further studies for enlightening HZ pathogenesis.

Keywords: herpes zoster, bilateral, multidermatomal

Figure 1

Grouped vesicles on an erythematous base both on right side forehead and left side superior palpebra.

PP-05 [Dermatological Surgery]

Basal Cell Carcinoma Located on the Underside of the Scrotum Treated with Mohs Micrographic Surgery: Case Report

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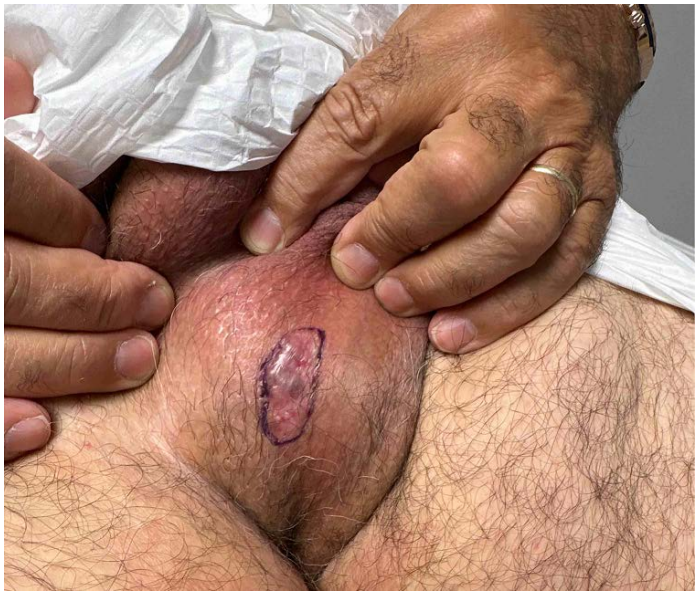
Basal cell carcinoma (BCC) is a malignant epidermal skin tumor and the most common cancer worldwide. It grows slowly, spreads locally, and requires costly treatment. The areas of the body exposed to the sun, such as the head and neck, are most affected. Older age, male sex, fair skin types I and II, immunosuppression, and arsenic exposure are also risk factors. Benign and malignant scrotal tumors are rare and can grow anywhere on the scrotal wall. BCC in the scrotum is 1 in 1,000,000 cases per year, whereas the involvement of the genital skin and mucosal epithelium is infrequent. Non-specific symptoms like plaques, nodules, and ulcers make scrotal BCC diagnosis difficult. In this case, we present a senior individual with a scrotal BCC lesion that was managed using Mohs micrographic surgery (MMS). We believe MMS is the most effective choice when treating BCC under challenging locations. This procedure has a high success rate, low cancer recurrence, and minimal tissue damage. Compared to traditional surgical methods and other treatment options, MMS stands out as the superior option.

Keywords: Basal cell carcinoma, Mohs micrographic surgery, Scrotum

1



PP-06 [Angiology, Haemangiomas, Vascular Malformations, Vasculitis]

Lymphangioma Circuscriptum Formation After Deep Lymphangioma Excision: A Case Report

Ela Gazal[1], Ümit Türsen[1], Nur Gizem Bolat[2], Yasemin Yuyucu Karabulut[2]
[1]Department of Dermatology, Mersin University, Mersin, Turkey
[2]Department of Pathology, Mersin University, Mersin, Turkey

INTRODUCTION: Lymphangioma circumscriptum (LC) or microcystic lymphatic malformation is a benign malformation affecting the lymphatic channels within the skin. It comprises two components: (a) the clinically apparent dermal vesicular component, and (b) the less conspicuous deeper subcutaneous cisternal component. Vesicles associated with LC may contain varying amounts of blood and exhibit colors ranging from pink to red to black. Accurate clinical differentiation and assessment of the depth and extent of lymphangiomas are crucial for selecting appropriate treatment strategies. Here, we present the case of a 14-year-old male patient who developed superficial lymphangioma following excision of a deep lymphangioma in the same region, which highlights an unusual manifestation of this condition, emphasizing the importance of recognizing such unusual

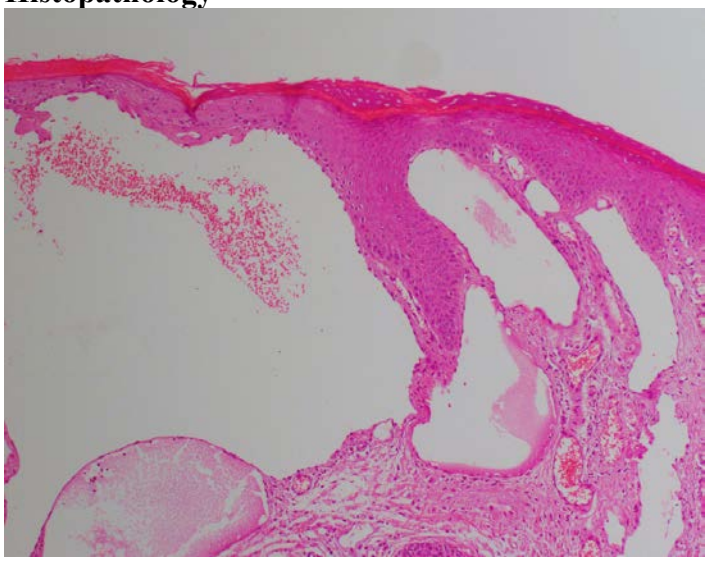
presentations to ensure appropriate management..

CASE: A 14-year-old male patient presented with a history of a subcutaneous mass on the left hip since birth, which progressively enlarged over time. Surgical excision performed 1.5 years ago revealed macrocystic lymphatic malformation. Post-surgery, the patient developed painless transparent pink-red bumps in the medial part of the left glutea, which gradually increased in size. Dermatological examination revealed pale-hued, translucent, yellowish, and reddish papules and nodules along the medial aspect of the left gluteal region, occasionally amalgamating to manifest as verrucous plaques. An incisional biopsy conducted by our team revealed dilated lymphatic structures containing erythrocytes and proteinaceous material. Due to the diffuse nature of the lesions and the patient's history of deep lymphangioma, topical treatments were not considered. Evaluation of systemic treatment options such as sirolimus and propranolol was planned in collaboration with the pediatric hematology department.

CONCLUSION: Lymphangioma is characterized by enlarged lymphatic channels surrounded by lymphatic endothelium. Lymphangioma circumscriptum is the most common subtype. Lesions may extend beyond surface presentation, necessitating preoperative MRI to determine depth. Treatment options include surgery, CO2 laser, ND:YAG laser, bleomycin sclerotherapy, and systemic sirolimus administration.

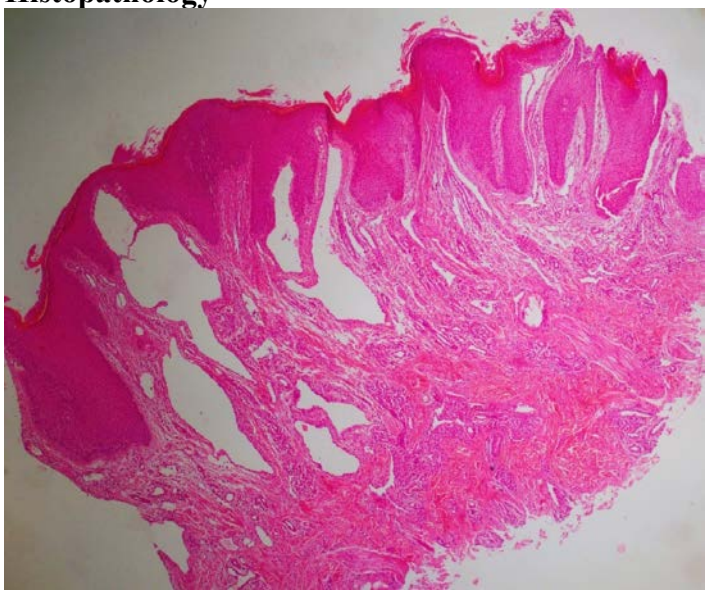
Keywords: Lymphangioma circumscriptum, Microcystic lymphatic malformation, Macrocystic lymphatic malformation

Histopathology



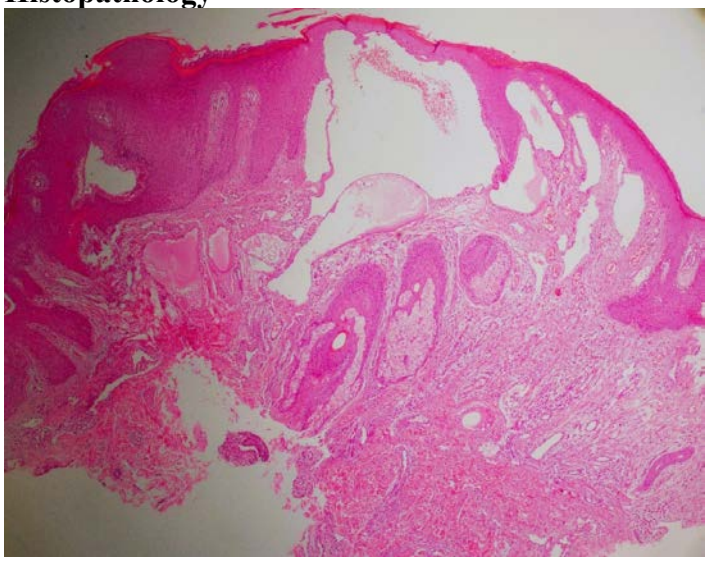
Erythrocytes and proteinaceous material within dilated lymphatic and vascular structures.

Histopathology



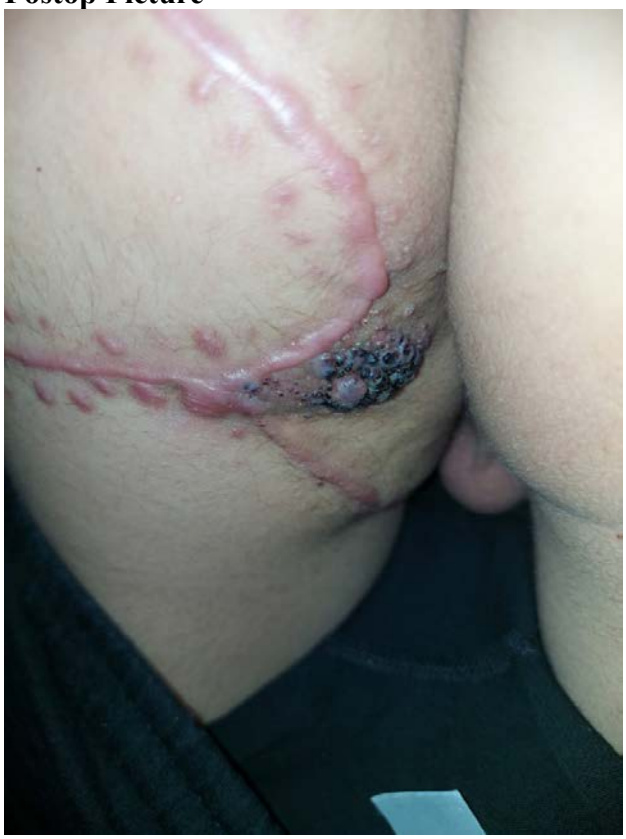
Dilated lymphatic structures in the dermis, alongside acanthosis and hyperkeratosis observed in the epidermis.

Histopathology



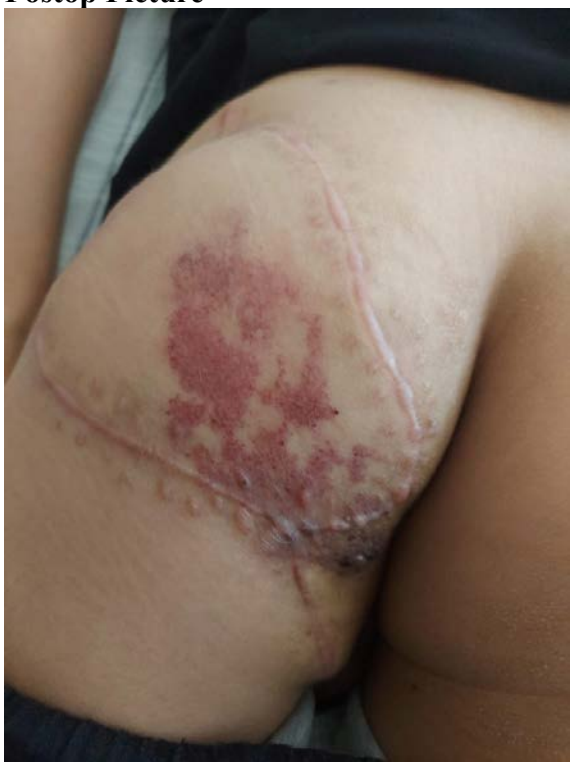
Dilated lymphatic structures in the dermis, alongside acanthosis and hyperkeratosis observed in the epidermis.

Postop Picture



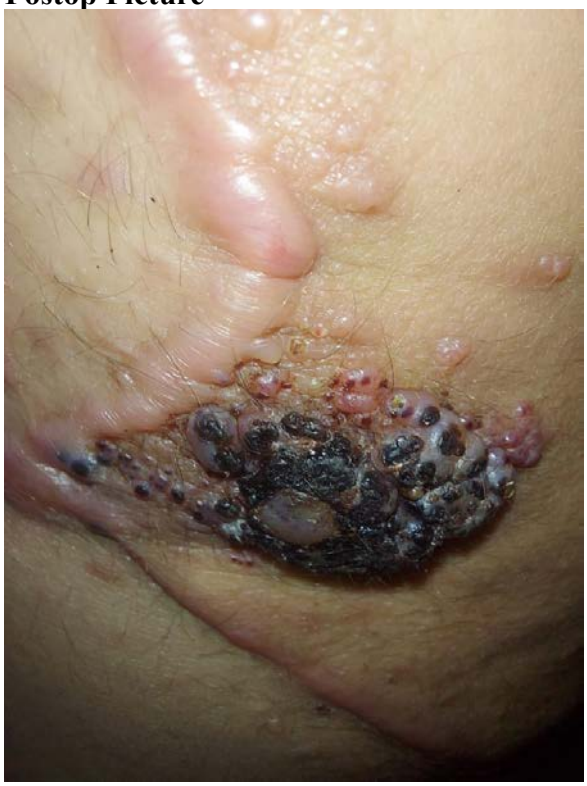
Postoperative red-black vesicles on the left hip that coalesce to form verrucous plaque

Postop Picture



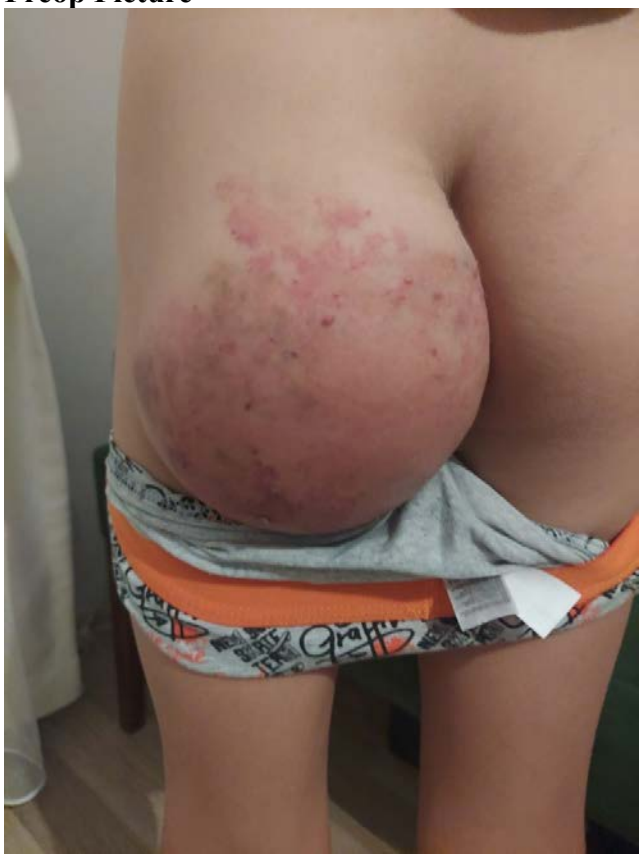
Postoperative red-black vesicles on the left hip that coalesce to form verrucous plaque

Postop Picture



Postoperative red-black vesicles on the left hip that coalesce to form verrucous plaque

Preop Picture



Preoperative scattered pink-red vesicles on the left hip

PP-07 [Dermatological Surgery]

Treating fingernail retronychia with taping and topical steroids: a conservative method

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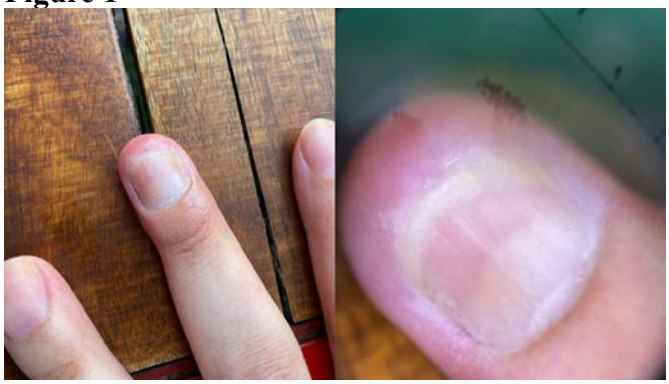
Objectives: Retronychia is a rather newly described entity that refers to the proximal nail plate ingrowth into the proximal nail fold. This ingrowth may eventually lead to paronychia and overlap of stacked nail plates one upon the other.Its incidence is probably underestimated. Most of the reports suggest a clear-cut prevalence for the female sex, young adulthood, and toenails. The initial event leading to retronychia is usually a traumatic injury inducing arrest of the longitudinal nail growth. In retronychia, detached nail plate loses the horizontal alignment but keeps a connection with lateral matrix horns. Because of this, the shedding process cannot be accomplished and the matrix produces a new underlying plate, which is unable to push the old plate forward, promoting the embedding of the upper plate within the proximal nail fold. Proximal avulsion of the nail normally remains the treatment of choice. In this report, I describe a case of fingernail retronychia which is a rather uncommon location and patients' successful management with a conservative method.

Case: A 31-year-old male patient presented with a painful deformity of the distal interphalangeal joint of the right-hand 3rd finger. He previously underwent surgery because of a 4th metacarpophalangeal joint fracture after trauma. Dermatologic examination revealed depressible bulging on the joint area, a prominent lunula, and distal onycholysis (Figure 1). He stated that the affected nail was not growing forward after trauma, and he was not able to trim that nail. A diagnosis of retronychia was rendered. Taping of lateral nail folds and distal edge outwards with application of a potent topical steroid was initiated (Figure 2a). 3 months after treatment, the older nail plate was set loose from the proximal nail fold while distal onycholysis disappeared (Figure 2b). Previously embedded newly formed nail became visible at proximal nail fold and bulging on the joint area faded. At the 6th month, a completely healthy nail was achieved (Figure 3).

Discussion: Retronychia has become a more recognized entity since its first description. While nail avulsion is thought to be the treatment of choice, a systemic review revealed that larger group of patients were treated with conservative approaches. Conservative treatments that can be used for retronychia are administration of local steroids, cycles of intralesional steroid injections, podological treatments, protective foam tubes and taping. Steroid applications usually targets inflammatory reactions such as swelling around proximal nail fold and reduce elevation of proximal nail. This may contribute to realignment, halting further distal rocking and stabilizing growth. Combination with consistent taping, distal nail fold formation is avoided, and as in this case, embedded plate could left nail bed. A conservative method can be more appropriate for mild fingernail cases like this case since patients can be spared from surgical comorbidities.

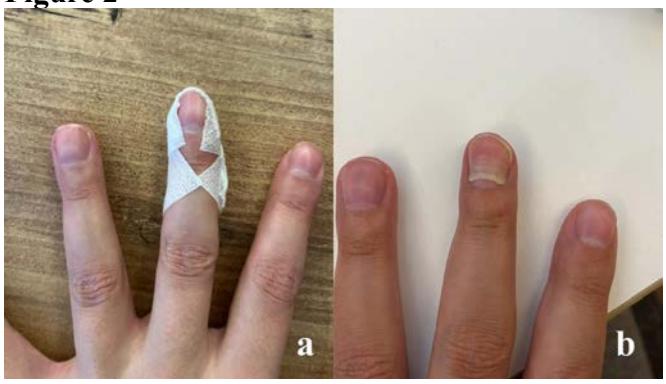
Keywords: retronychia, fingernail, taping

Figure 1



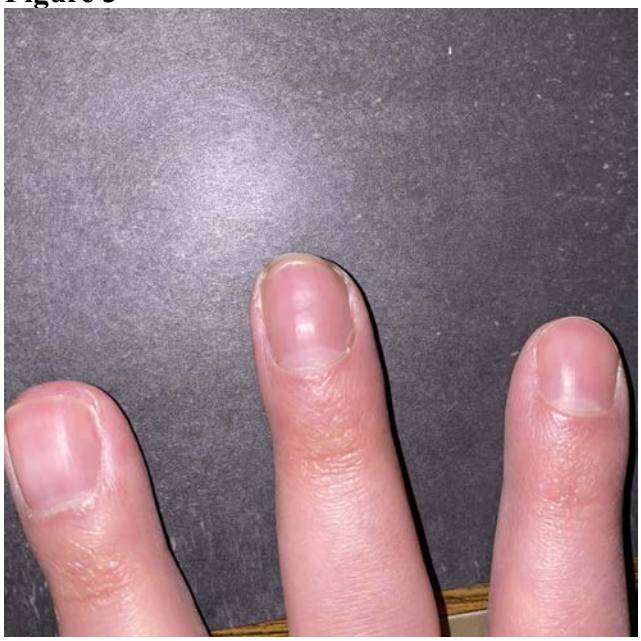
Fingernail showing bulging on the joint area, a prominent lunula, and distal onycholysis after traumatic injury.

Figure 2



Treatment method with taping of lateral nail folds and distal edge outwards (a), 3 months after treatment (b).

Figure 3



6 months after first injury, a healty nail achived with treatment.

PP-08 [Cutaneous Oncology]

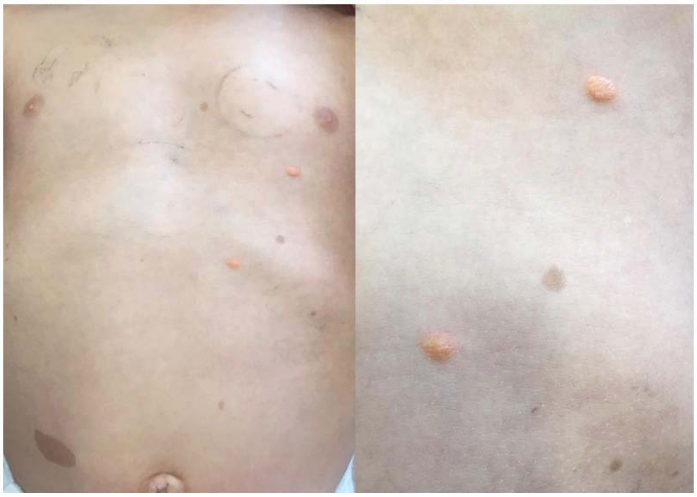
Coexistence of Neurofibromatosis Type 1 and Juvenile Xanthogranuloma

Kadir Kaya, Isa An
Department of Dermatology, Şanlıurfa Training and Research Hospital, Şanlıurfa, Turkey.

An eighteen-month-old male infant was brought to our dermatology and venereal diseases clinic due to yellowish-orange lesions on the body. The patient's history revealed that he was being followed up in the pediatric neurology clinic with a diagnosis of Neurofibromatosis (NF) Type 1. Dermatological examination identified yellowish-orange plaque lesions on the trunk (Figure 1). Histopathological examination of the lesioned skin diagnosed juvenile xanthogranuloma (JXG). JXG is a rare benign histiocytosis belonging to the non-Langerhans cell group. The lesions are characterized by solitary asymptomatic papules, nodules, or plaques, predominantly located on the head, neck, and upper body. About 40-70% of patients present within the first year of life, with a higher incidence in males during childhood, while it appears equally in both genders in adults. The coexistence of JXG and NF has been reported to be between 0.7-18.2%. It has been reported that the coexistence of JXG and NF-1 increases the risk of juvenile chronic myeloid leukemia. Therefore, clinicians should keep in mind that JXG and NF-1 can coexist.

Keywords: coexist, juvenile xanthogranuloma, neurofibromatosis type 1

Figure 1



PP-09 [Photobiology and Photoallergy]

Hydroa Vacciniforme

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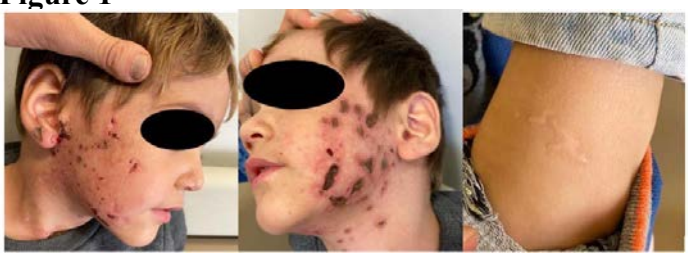
Department of dermatology, Şanlıurfa Training and Research Hospital, Şanlıurfa, Turkey.

A three-year-old male patient was brought to our dermatology and venereal diseases clinic complaining of crusty wounds on the face. It was reported that his complaints began at six months old and were especially pronounced after sun exposure during the summer months. Dermatological examination revealed ulcerative and atrophic lesions on both cheeks and ears, and atrophic scars on the wrist. (Figure 1) Routine laboratory values, including complete blood count, blood biochemistry, and complete urine analysis, were within normal limits. Anti-nuclear antibody and Epstein Barr virus-related serological tests were negative. Based on the clinical findings, the patient was diagnosed with hydroa vacciniforme. The patient was advised to use sun protective cream and mild potency topical corticosteroids. Hydroa vacciniforme (HV) is a rare, chronic photodermatosis with an etiology not fully understood, often appearing in the pediatric age group. The incidence of HV is approximately 0.34/100,000, reported equally in both genders. HV typically appears on skin areas exposed to the sun during spring and summer. Complaints usually start in childhood, manifesting in episodes and tend to regress spontaneously after adolescence. Clinically, it is marked by tense edematous papules and vesicles. Lesions eventually necrotize from the center, become crusty, and heal leaving a scar. Although the etiopathogenesis of HV has not been fully elucidated, it is claimed to be a delayed-type hypersensitivity reaction to UVA. Latent Epstein Barr virus infections have been implicated in pathogenesis, and HV has been reported as an EBV-associated lymphoproliferative disease. Diagnosis is made clinically. Apart from sun avoidance and sunscreens, there is no effective treatment for HV. Our case is presented due to its rarity.

Keywords: epstein barr virus, hydroa vacciniforme, photodermatosis

Figure 1



PP-10 [Pigmentary Diseases]

Dowling-Degos Disease

Kadir Kaya, Isa An
Department of Dermatology, Şanlıurfa Training and Research Hospital, Şanlıurfa, Turkey.

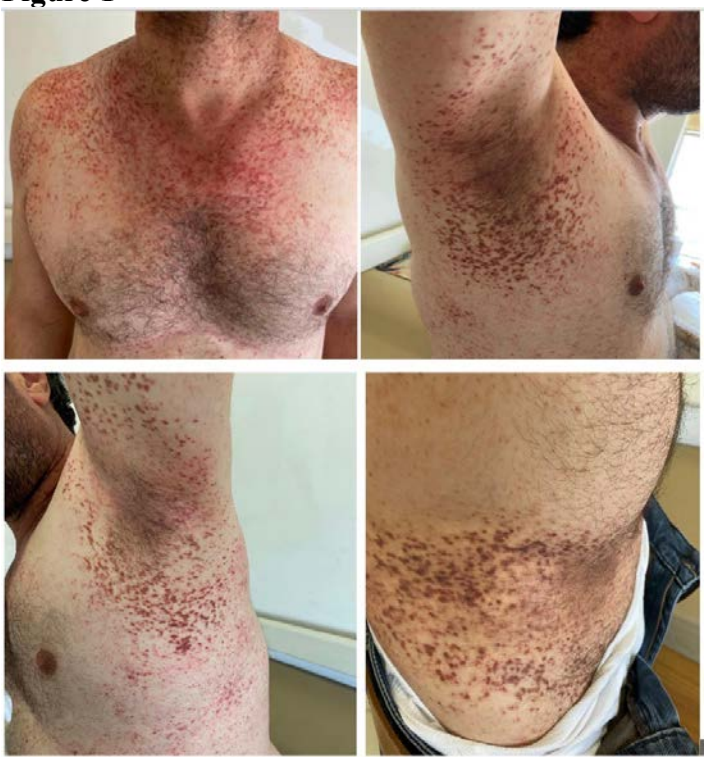
A thirty-nine-year-old male patient presented to our dermatology and venereal diseases clinic with complaints of asymptomatic red-brownish spots on the neck, axillae, and groin that had been present for over three years. Dermatological examination revealed 1-3 cm diameter macules and patches with a partially reticular pattern, red-brownish in color, located on the neck, axilla, upper chest parts, and inguinal region. (Figure 1) Histopathological examination of a lesion from the neck area showed an increase in melanin in the basal layer, slight vacuolization at the dermoepidermal junction, and occasional follicular plugs. With the

existing clinical and histopathological findings, the patient was diagnosed with Dowling-Degos Disease. Dowling-Degos Disease is an autosomal dominant genodermatosis characterized by reticulated hyperpigmented macules primarily located in flexural areas such as the axillae, inguinal region, and popliteal fossa. The disease is more common in women. The typical lesion of the disease is open or dark brown macules of 3-5 mm diameter forming a reticular pattern. Histopathological findings include hyperpigmentation in the basal layer, horny projections in the epidermis, elongation in the rete ridges, follicular plugs, dermal melanosis, perivascular mononuclear cell infiltration, and hyperkeratosis.

Clinicians should keep Dowling-Degos Disease, a rare disease presenting with reticular hyperpigmentation, in mind for differential diagnosis in patients.

Keywords: dowling-degos disease, flexural, reticular hyperpigmentation

Figure 1



PP-11 [Adverse Drug Reactions, TEN]

Ornidazole-Induced Fixed Drug Eruption

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INTRODUCTION: Fixed drug eruption (FDE) is a unique type of drug reaction that characteristically recurs at the same site with each exposure to the offending medication. There are very few reported cases of FDE related to ornidazole in the literature. This case of fixed drug eruption developed in an adult patient treated with ornidazole for diarrhea is presented due to the rarity of its association with ornidazole.

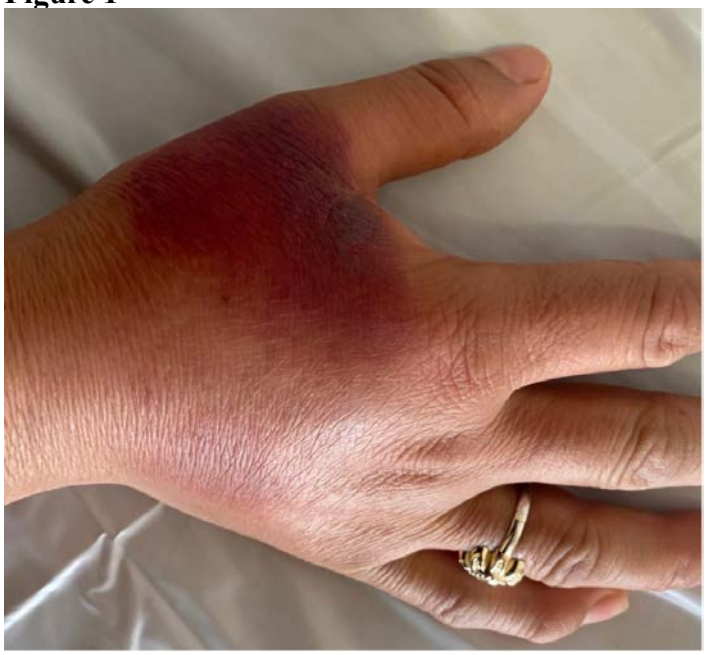
CASE PRESENTATION: A 48-year-old female patient was consulted from the emergency department due to redness on her hand. It was learned that the patient had severe diarrhea for four days and had started ornidazole treatment three hours prior. Dermatological examination revealed a sharply demarcated purplish erythematous patch measuring 5x4 cm on the back of the right hand (Figure 1). Based on her history and examination, a diagnosis of FDE was made. Ornidazole treatment was stopped, and topical steroid treatment was initiated for the lesion.

DISCUSSION: Fixed drug eruption is a drug reaction that can appear on the skin or mucosa, typically recurring at the same location with each use of the same drug. It can occur at any age and due to any medication. It usually presents as sharply demarcated erythematous patches, while severe cases may exhibit bullae and most cases heal within 7-10 days leaving post-inflammatory hyperpigmentation. The responsible drug is often identified through the patient's history. It occurs within 30 minutes to 8 hours after taking the responsible drug. FDE is most commonly caused by antibacterial agents (trimethoprim-sulfamethoxazole, tetracyclines, dapsone), NSAIDs, and anticonvulsants. Ornidazole, a 5-nitroimidazole derivative used for its antibacterial and antiprotozoal effects in treating various infections including amoebic dysentery, has very few reported cases of FDE in the literature. Although very rare, FDE related to ornidazole use should be kept in mind, and clinicians should not overlook sharply demarcated

erythematous lesions appearing shortly after ornidazole intake.

Keywords: erythematous, fixed drug eruption, ornidazole

Figure 1



PP-12 [Angiology, Haemangiomas, Vascular Malformations, Vasculitis]

Targetoid Hemosiderotic Hemangioma: Case Report

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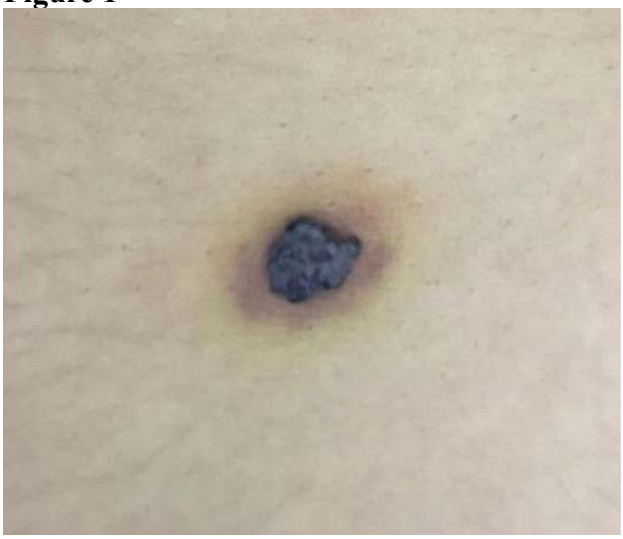
INTRODUCTION: Targetoid Hemosiderotic Hemangioma (THH) is a benign, solitary vascular tumor usually observed in young or middle-aged individuals, localized to the extremities or trunk. A 32-year-old woman presented to our clinic with a purplish papule on the abdominal skin for three months. The patient, who was clinically and histopathologically diagnosed with THH, is presented because of the rarity of the condition and easy diagnosis with its characteristic appearance.

CASE PRESENTATION: A 32-year-old female patient consulted our clinic due to a bump on her abdomen. She reported that the lesion, which had been gradually enlarging over three months, caused no itching, pain, or burning sensation. She had no history of trauma. Dermatological examination revealed a 7x7 mm violaceous vascular papule on the abdominal skin with a surrounding ecchymotic halo forming a targetoid lesion (Figure 1). Excisional biopsy of the papule revealed expanded and increased numbers of blood vessels and endothelial cells with a hobnail appearance in the dermis. A clinical and histopathological diagnosis of THH was made.

DISCUSSION: Also known as hobnail hemangioma, Targetoid Hemosiderotic Hemangioma (THH) is a benign vascular lesion that typically presents as red-blue, purple, or brown papules localized mainly on the extremities or trunk. The naming ‘targetoid’ derives from its clinical appearance, usually surrounded by a pale, thin area and a peripheral ecchymotic halo; ‘hobnail’ refers to the protruding appearance of endothelial cells histologically. Trauma and hormones have been reported to play roles in the development of THH. Clinically, these lesions can be confused with hemangioma, angiokeratoma, melanocytic nevus, melanoma, dermatofibroma, and insect bites. Simple surgical excision is curative, and recurrence is not expected. Although rare, its typical clinical features allow for easy recognition, so the unique presentation of THH should be kept in mind.

Keywords: hobnail, targetoid hemosiderotic hemangioma, vascular

Figure 1



PP-13 [Cutaneous Oncology]

Primary Cutaneous Anaplastic Large Cell Lymphoma with Extracutaneous Involvement: Case Report

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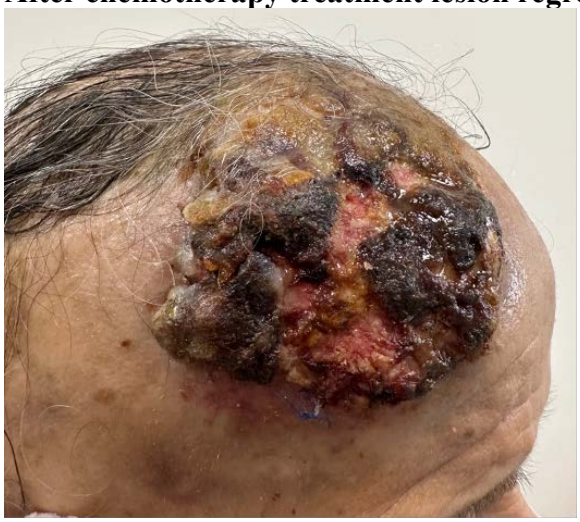
Primary cutaneous anaplastic large cell lymphoma (PCALCL) is the second most common cutaneous T-cell lymphoma after mycosis fungoides. PCALCL usually presents as a localized nodule or papule with or without ulceration. The diagnosis of PCALCL is based on clinical findings, histopathologic and immunophenotypic examination and the absence of systemic disease. Treatment depends on the presence of extracutaneous involvement and whether the lesion is multiple or solitary. In this case, a 57-year-old woman presented to us with a gradually growing lesion on the scalp. Histopathologic and immunohistochemical examinations were conducted on the patient. The diagnosis of primary cutaneous anaplastic large cell lymphoma with extracutaneous involvement was primarily determined due to the observation of regional lymph node involvement on imaging studies. This case is presented to emphasize the importance of systemic evaluation in cases of PCALCL.

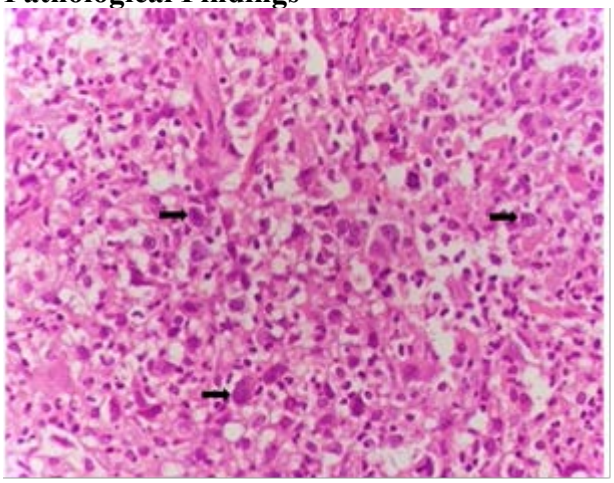
Keywords: Primary Cutaneous Anaplastic Large Cell Lymphoma with Extracutaneous Involvement, Lymphoma, Extracutaneous Involvement

After chemotherapy treatment lesion regresion



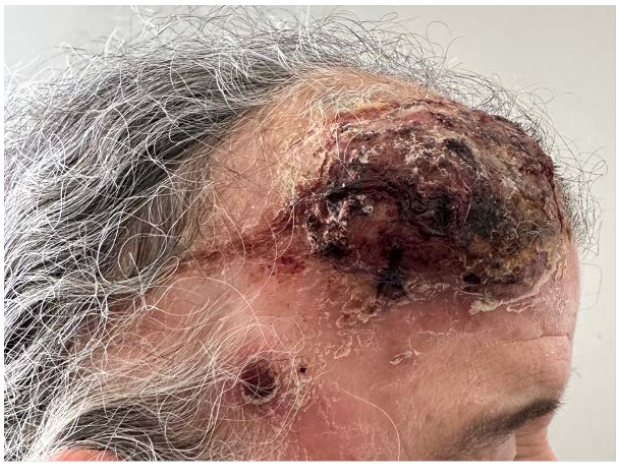
After chemotherapy treatment lesion regresion

Pathological Findings



Pathological Findings x40

Pre-Treatment Lesion



Pre-Treatment Lesion

PP-16 [Paediatric Dermatology]

Porokeratosis of Mibelli with Beau's lines on the nail: a case report

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Introduction & Objectives: Porokeratosis is a group of keratinization disorders that can occur hereditary or sporadically. As a variant of porokeratosis, porokeratosis of Mibelli (PM) is characterized by annular patches surrounded by a hyperkeratotic border of which the histological hallmark is cornoid lamella. Nail involvement is too rare in the PM. We herein report a pediatric case with sporadic PM on the dorsal hand and fingers that extended to the proximal nail fold of the third digit and led to Beau's lines.

Case: A two-year-old girl, born of a nonconsanguineous marriage, presented with asymptomatic, annular erythematous plaques with hyperkeratotic edges on the dorsum of the second and third digits and metacarpophalangeal region of the right hand since the age of two months. The lesions have slowly enlarged without spontaneous regression from the beginning. She has no history of any systemic disease associated with porokeratosis. No history of trauma, contact with chemicals, drug intake, recurrent fever, or excessive sun exposure was present. She had no family history of similar lesions. Dermatological examination revealed well-demarcated annular erythematous plaques with hyperkeratotic and elevated edges and atrophic centers on the dorsum of the second and third digits and metacarpophalangeal regions of the right hand. A similar hyperkeratotic papule existed on the right eyelid (Figures 1a and 1b). Dermoscopy revealed a keratin rim, brown pigmentation along the keratin rim, shiny white structures, and non-peripheral scales (Figure 2). Moreover, superficial transverse grooves (Beau's lines) were present only on the nail of the right third digit (Figure 1c). The rest of the skin, mucosa, the other nails, and systemic evaluation were unremarkable. Lesional biopsy from the dorsal hand revealed intense epidermal hyperkeratosis, focal keratin-filled epidermal invaginations with overlying broad columns of parakeratosis and underlying focal loss of granular layer (cornoid lamella), and perivascular sparse mononuclear inflammatory infiltrates. Based on history and clinicopathologic findings, the diagnosis of PM was made. Laboratory investigations were unremarkable.

CONCLUSION: It is speculated that the involvement of the nail matrix or nail bed by the atypical clonal keratinocytes leads to nail changes in porokeratosis. Reported nail changes include nail ridging, splitting, pterygium, and anonychia. However, Beau's line due to porokeratosis has not been reported yet. We highlight the coexistence of PM with Beau's lines on the affected nail in a girl. Regarding the age of onset, 3-month-old, our case is probably the youngest non-hereditary case reported in the literature. In addition, this is the first reported case of Beau's lines due to the porokeratosis.

Keywords: porokeratosis, porokeratosis of Mibelli, Beau's line, nail

FIGURE 1

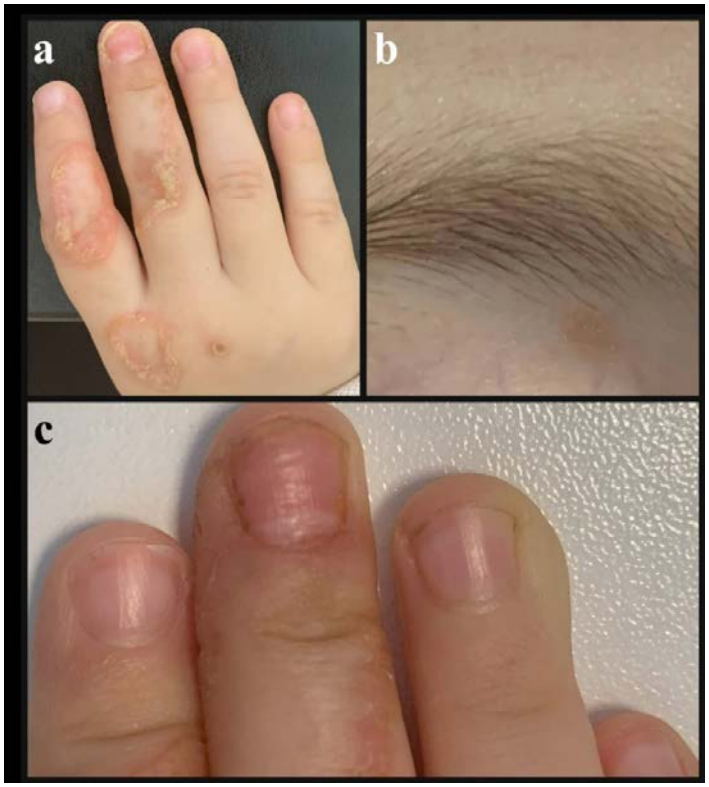
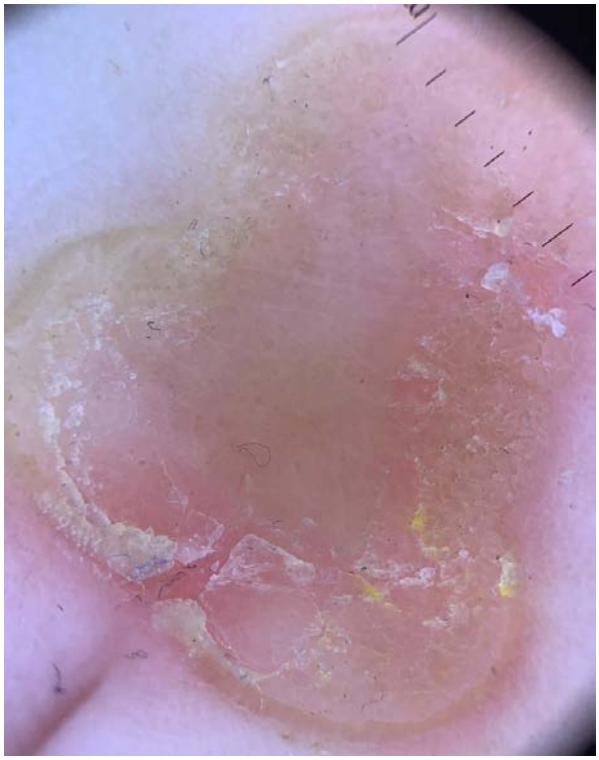


FIGURE 2



PP-17 [Autoimmune Bullous Diseases]

Pemphigus vulgaris presenting as a Bechet's disease mimic

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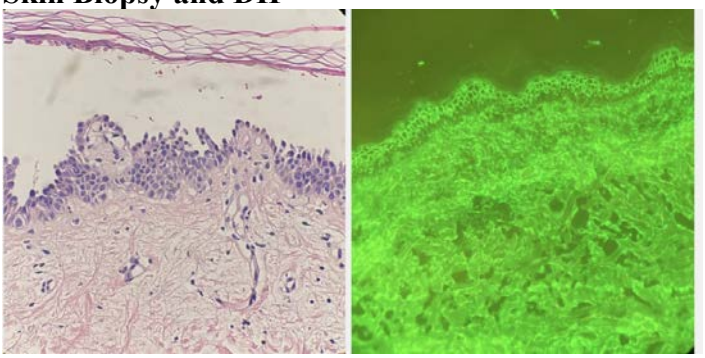
Bechet's disease is an auto-inflammatory systemic vasculitis of unknown etiology. It is characterized by recurrent mucocutaneous manifestations, including recurrent oral and genital ulcerations. Pemphigus Vulgaris is a rare debilitating autoimmune disease especially if left untreated. The oral mucosa is frequently affected in almost 80% of cases presenting as multiple ulcerations accompanied by flaccid skin blisters. These manifestations may be similar with other autoimmune disorders which can lead to a misdiagnosis

This is a case of a 72 year old female a known diabetic with thalassemia and a family history of Autoimmune Thyroid Disease. She presented with a 3 month history of multiple painful oral ulcerations on the lower lip and tongue as well as the labia majora with subsequent appearance of flaccid bullae on the torso and back no involvement of the palms and soles.Initially manged as a case of Disseminated Varicella Zoster with secondary bacterial infection and was prescribed with antivirals and different antibiotics but did not afford any relief. Unable to eat due to the severe pain, Upon evaluation Her Dermatological Quality of Life Index (DLQI), a validated self-administered measure of a dermatologic patient's quality of life, was 23 (dermatosis resulting in an extremely adverse effect on the patient's life.) She had, swollen lips, multiple irregular ulcerations on tongue and lower labial mucosa, A white plaque covering posterior 2/3 of the tongue, Hyperemic oral mucosa, tonsils, an eroded plaque with brownish crust at the xiphoid process. A solitary flaccid bullae adjacent to it. Hydrocortisone 100mg IV once a day was started, two days after initiation of treatment, marked regression of the painful ulcerations was noted. Skin Histopathology revealed a focal area of basketweave stratum corneum, an intraepidermal split and acantholysis lining up like a row of tombstone. In the dermis, there is a mildly dense interstitial and perivascular infiltrate of lymphocytes, histiocytes and few eosinophils. Dermal edema. Direct immune fluorescence of the skin and oral mucosa showed faintly positive intercellular deposition of immunoglobulin G (IgG) and intensely positive intercellular deposition of complement 3 (C3) resembling a fish net or chicken wire. These findings cemented the Diagnosis of Pemphigus Vulgaris. 1 week into treatment the patient's Pemphigus Disease Area Index (PDAI) score improved as well as her quality of life.

Prompt recognition and diagnosis led to prompt treatment and alleviation of the patient's suffering and progression of complications. Although several autoimmune disease may present alike, reports on Bechet's disease mimicking PV is rare. Careful history and physical examination followed by skin biopsy with histopathology are emphasised to confirm the diagnosis

Keywords: Pemphigus,Bechet's,Quality of life, Flaccid Blisters

Skin Biopsy and DIF



Skin Histopathology revealed a focal area of basketweave stratum corneum, an intraepidermal split and acantholysis lining up like a row of tombstone.

PP-18 [Paediatric Dermatology]

Hair band heterochromia: an unusual Blaschkoid mosaism location

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Objectives: Heterochromia of the hair defines the presence of two distinctive colors of scalp hair in one individual. Although this condition can be physiological, various disorders may present with heterochromia of the hair. In this case report, I present an otherwise healthy boy with hair band heterochromia, a distinct entity causing hair heterochromia which is rarely reported in literature.

Case: A 13-month-old healthy boy presented to outpatient clinic with a different colored patch of hair that had been present since birth and became more apparent after a recent haircut. Dermatologic examination revealed a 2,5 cm high band of hair in semicircular form including both left and right parietal and occipital areas sparing the vertex (Figure 1). Trichoscopic examination showed a clear-cut border between thicker and darker peripheral normal hair, and the thinner and lighter affected hair (Figure 2). Underlying skin was normal, without any evidence of nevus or vitiligo. Full body examination didn't reveal any pigmentary disorder. Complete blood count, comprehensive metabolic panel, iron studies and neonatal screenings of the patient were normal. Pediatrics consultation didn't show any metabolic or genetic abnormalities. A diagnosis of hair band heterochromia was rendered.

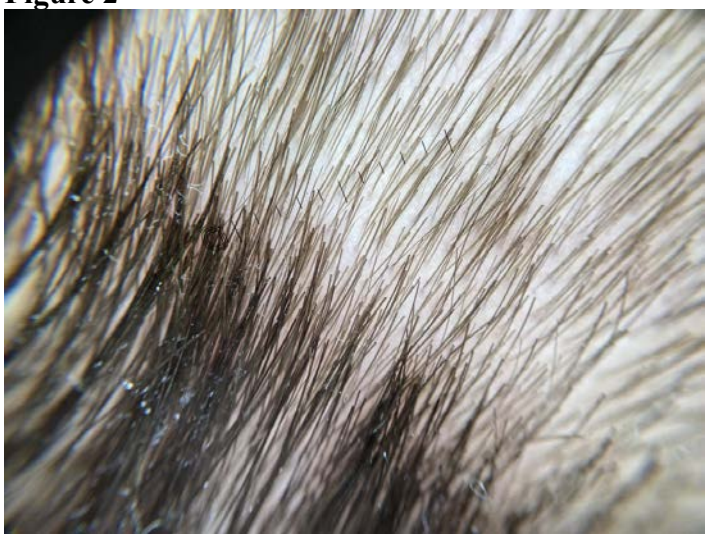
Discussion: Alterations of the color and texture of the hair has been known to be impacted by genetics, metabolic defects, nutritional deficiencies, exposure to chemicals, injury of the follicle, an durgs. Evaluation of patients presenting with hair heterochromia can be assessed by the pattern of heterochromia at presentation. Diffuse heterochromia with sporadic intermixing can be familial or due to metabolic deficiencies (phenylketonuria and kwashiorkor), nutritional deficiency (vitamin B12 and copper), or drug exposure (minoxidil, chloroquine, and diazoxide). Segmental heterochromia presents with segments of different colors along the same hair shaft can be due to iron deficiency. Focal hair heterochromia which can be presented with darker or lighter patch contrasting other hair is usually an isolated finding which can be attributed to somatic mosaicism. Discrete patches of lighter or darker colored hair with a Blaschkoid distribution as in this case may occur rarely. Blaschkoid heterochromia are also taught to result from a somatic mosaicism of genes affecting pigmentation. This hypothesis is also supported by the fact that most of the heterochromia following Blaschko lines of the head cases are congenital, as in this case. Bonifazi and Cutrone suggested that hair band heterochromia cases should suggest a nevus condition, which they named as band hypotricotic nevus but histopathologic and genetic confirmation were absent in their report to support this hypothesis. Further studies are needed to screen for specific genetic sequence alterations in individuals with isolated hair heterochromia.

Keywords: heterochromia, hair, Blaschko lines

Figure 1

A lighther colored band of hair in semicircular distribution.

Figure 2



Trichoscopy shows the demarcation of color variation between two structurally similar hair shafts.

PP-19 [Pigmentary Diseases]

Acquired brachial cutaneous dyschromatosis: An underreported pigmentary disorder

Mehmet Doğuhan Çoşlu, Düriye Deniz Demirseren
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Introduction & Objectives: Acquired brachial cutaneous dyschromatosis (ABCD) is an acquired pigmentary disorder that presents as asymptomatic, gray-brown patches. Lesions are geographic-shaped with irregular borders consisting of non-scaly, multiple, non-itchy hyperpigmented macules interspersed with hypopigmented macules which is more likely to be located on the dorsal aspect of the forearms. Acquired brachial cutaneous dyschromatosis was first described in 2000. The number of cases reported since then is quite low, which is likely to be related to the fact that it is an asymptomatic disorder. This condition, which is mostly seen in middle-aged women, is closely related to hypertension, hypertension medications, menopause, and chronic sun exposure.

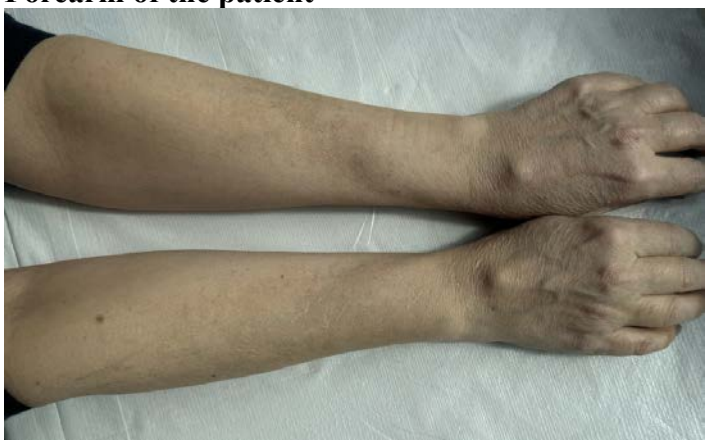
Materials & METHODS: A 50-year-old female patient applied to our clinic with the complaint of pigmentation problem on her arms that had been appearing for 4-5 years. Physical examination showed wide and irregularly distrubuted, well-circumscribed geometric patches of brown/grey pigmentation on both dorsal forearms. Accompanying these hyperpigmented lesions, sharply defined hypopigmented lesions were observed. In the patient's anamnesis, long sun exposures for sports activities during the Covid-19 pandemic 4-5 years ago were noted. It was learned that she started using an angiotensin receptor blocker group of drug, candesartan, for hypertension around the same time. The patient refused skin biopsy, but considering the clinical features and anamnesis, Acquired brachial cutaneous dyschromatosis was primarily considered for diagnosis. The patient was informed about the disorder and regular sun protection was recommended.

RESULTS: Diagnosis of ABCD is mainly achieved with a proper clinical skin examination. Dermatologists observe the lesions, focusing on the predilection sites, distribution, and overall appearance. It is very important to inform patients about the asymptomatic character of the disorder and to underline that this is primarily a cosmetic concern. Although the treatment is not clear, there are methods being tried. Topical agents, Non-ablative fractional laser and chemical peeling are among other methods that can be tried. Essentially, regular sun protection and appropriate clothing are essential to prevent lesions from getting worse.

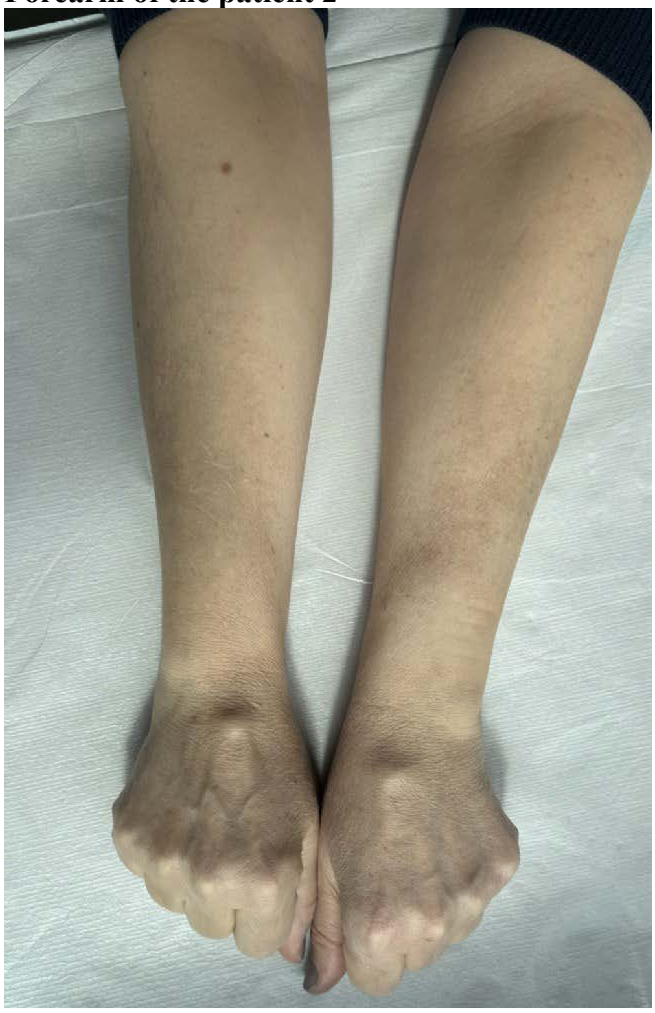
CONCLUSION: We reported a case of a middle-aged female patient with acquired brachial cutaneous dyschromatosis who had history of hypertension, usage of angiotensin receptor blocker class drug and chronic sun exposure, and the presentation was bilaterally on forearms as expected. This pigmentation disorder is underreported. The biggest reason for this is that it is asymptomatic and ignored by patients. ABCD should be considered diagnostically in middle-aged women, like our patient, who describe chronic sun exposure, have hypertension and hypertension medication use, and have characteristic lesions localized on the forearms.

Keywords: ABCD, Acquired brachial cutaneous dyschromatosis, Pigmentary disorders, Sun exposure

Forearm of the patient



Forearm of the patient 2



PP-20 [Cutaneous Oncology]

A case of eruptive pseudoangiomatosis in an elderly patient with malignant melanoma

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INTRODUCTION: Eruptive pseudoangiomatosis (EP) is an uncommon dermatological condition characterized by the abrupt onset of small, erythematous papules resembling angiomas, often accompanied by fever. The condition primarily affects children, although cases in adults have also been reported. EP presents a diagnostic challenge to dermatologists due to its sudden appearance, rarity and similarity to other cutaneous conditions.

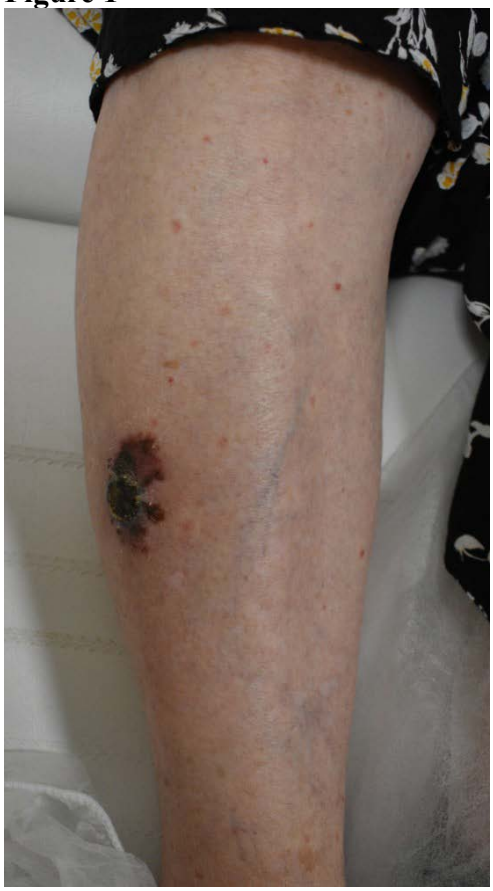
CASE: A 91-year-old female patient was admitted to our clinic by her relatives due to a rapidly growing lesion on her leg in recent days. During dermatological examination; a black-colored nodular lesion with hemorrhagic crusts was observed on the front surface of the right tibia, on the basis of a patch of varying shades of brown, and central erythematous papular lesions surrounded by a halo were observed, extending to the toes on both legs.According to the information received from the patient's relatives, the lesion had existed for about 2 years, but started to grow rapidly in the last weeks and bleeding occurred.They stated that they did not know the exact onset time of erythematous papular lesions, but that they spread similarly to the other lesion.The biopsy result taken from the nodular lesion was reported as malignant melanoma. The lesions completely blanched with pressure and rapidly refilled when released. Based on the vascular nature of the lesion and its perilesional halo, a diagnosis of eruptive pseudoangiomatosis was made.

DISCUSSION-CONCLUSION: EP typically manifests as multiple, discrete, red to violaceous papules, measuring 2-6 mm in diameter. These papules may appear suddenly, often spreading rapidly over the trunk, extremities, and face.While typically asymptomatic, patients may experience mild pruritus or tenderness associated with the lesions. In some cases, fever may accompany the eruption, along with

a prodrome of upper respiratory symptoms. The abrupt onset and widespread distribution of lesions can be alarming to patients and caregivers, leading to anxiety and concern. The exact etiology of EP remains elusive, with proposed mechanisms implicating viral triggers such as parvovirus B19 and adenovirus. However, direct evidence linking these viruses to EP is lacking, and other potential triggers, such as recent upper respiratory tract infections or immunizations, have also been suggested. The pathogenesis of EP is thought to involve vascular dysregulation and inflammatory processes, leading to the characteristic appearance of the lesions. Histopathological examination may reveal a nonspecific perivascular lymphocytic infiltrate, but findings are typically unremarkable and not essential for diagnosis. While it is most commonly observed in children, it is worth to discuss our case as it is observed in an elderly patient and co-occurrence with malignant melanoma.

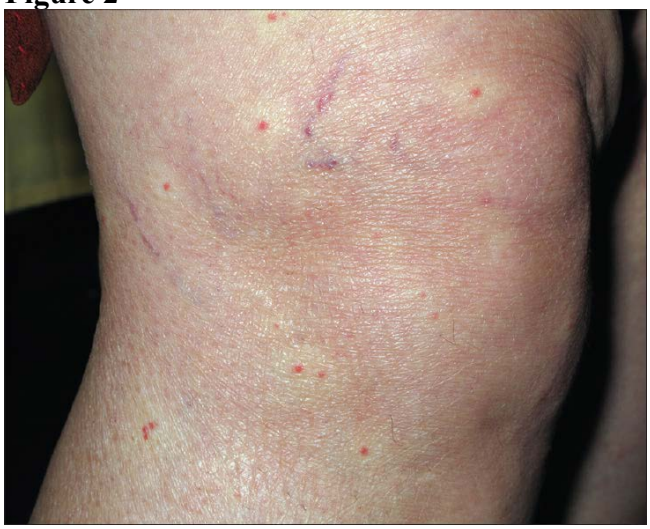
Keywords: eruptive pseudoangiomatosis, malignant melanoma, benign vascular disorder

Figure 1



Vascular lesions with a perilesional white halo seen around malignant melanoma

Figure 2



Erythematous papular lesions with perilesional halo

PP-21 [Acne and Related Disorders, Hidradenitis Suppurativa]

Pediatric Hidradenitis Suppurativa in a Patient with Down Syndrome A Case Report and Review of Literature

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[2]Private Clinic, Canakkale, Türkiye

INTRODUCTION: Hidradenitis suppurativa (HS) is a skin disease characterized by recurrent painful deep nodules and abscesses of the axillary, breast, groin and anogenital regions. Down syndrome (DS) is one of the most common chromosomal disorders. Recent studies have shown an increased risk of developing HS in patients with DS. The diagnosis of HS for these patients occurs earlier in life, therefore it is recommended to screen patients with DS for HS. Here, we present a 16 years old female patient with DS who was diagnosed with HS.

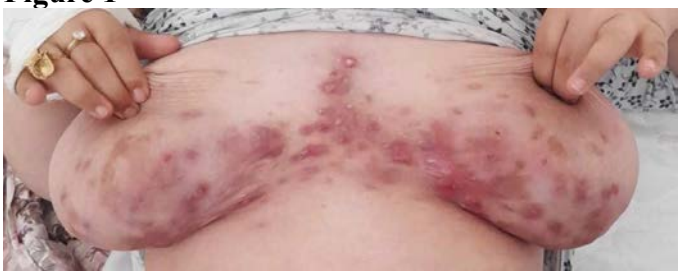
Case Report: A 16-year-old female patient with DS presented with abscesses with purulent drainage. Abscesses had started in her anogenital region 9 years ago. Then, abscesses developed in her groin and in her inframammary folds. She was diagnosed with nodular acne and was treated with oral lymecycline, metronidazole and topical mupirocin,

clindamycin and chlorhexidine, she did not benefit from them. She had history of celiac disease and hypothyroidism. Her body mass index was 38 kg/m². Dermatological examination revealed erythematous nodules and several skin tunnels in the bilateral inframammary folds and intermammary area. Bilateral axillae were normal. There were postlesional erythema in inguinal areas, an erythematous nodule in the right inguinal, erythematous nodules in mons pubis, labium majus, gluteal and perianal area. Laboratory findings showed elevated sedimentation and CRP. She was diagnosed with Hurley stage 3 HS based on the clinical findings. Adalimumab treatment was started but she discontinued follow-up visits.

Discussion: DS is known as trisomy 21 and affects the skin. HS is a disease with follicular occlusion and one of the most common dermatologic conditions in patients with DS. A link between HS and DS was first described in 1977. The link may be related to abnormal amyloid precursor protein (APP) expression. The encoding gene for APP is located on chromosome 21. APP promotes keratinocyte activity, which could play a role in follicular occlusion. Also, APP and Notch receptors are competitive substrates for gamma secretase. A decrease in Notch receptor processing could be speculated to be the cause of impaired Notch signalling and HS. A cross-sectional analysis of almost 12000 DS patients found a 2.1% prevalence of HS vs. 0.3% in controls. Patients with DS had a fivefold greater likelihood of HS compared with those without DS. HS prevalence was greatest among patients with DS who were aged 18–29 years. Another cross sectional study revealed that DS participants presented a lower age of onset, age at diagnosis and time to diagnosis. Also, DS was not associated with the severity of HS. A review revealed HS appeared to present at a younger age, typically during adolescence. There were several reports of preadolescent occurrence. The US and Canadian HS Foundations have recommended annual HS screening in patients with DS. Given these findings, dermatologists should be aware of association between HS and DS.

Keywords: Hidradenitis suppurativa, Down Syndrome, screening, trisomy 21, review

Figure 1



Erythematous nodules and several skin tunnels in the bilateral inframammary folds and intermammary area.

PP-22 [Dermatopathology]

Linear Segmental Neurofibromatosis in an L4 Distribution

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Introduction & OBJECTIVES: Segmental neurofibromatosis is rare variant of neurofibromatosis (NF) type 1 believed to be a result from a postzigotic mutation of NF type 1 gene. It is characterized with cafe-au-lait macules, freckling and/or neurofibromas limited to one region of the body. Affected dermatomal regions include the thorax and abdomen (55%), upper extremity and axillary regions (20%), face (10%), and lower extremities (10%). With this report, we aimed to remind the clinical features and associations of segmental neurofibromatosis.

Materials & METHODS:: A 64-year-old female presented with soft nodular lesions on the foot. Dermatological examination revealed 0,2 to 0,5 cm nodules in a linear configuration on the plantar surfaces of the left foot (Figure-1). A punch biopsy specimen was taken of the nodules. Histopathological findings were compatible with neurofibroma. Further examinations were made. No pathological findings were seen. The patient was diagnosed with isolated

segmental neurofibromatosis.

CONCLUSIONS: Segmental neurofibromatosis should be considered in the differential diagnosis in patients presenting with grouped nodular lesions on atypical regions. Although rare, segmental neurofibromatosis can be seen in the L4 dermatome.

Keywords: cafe-au-lait macules, freckling, neurofibroma

PP-23 [Adverse Drug Reactions, TEN]

Steven Johnson's Syndrome In a patient with COVID19: Coincidence or Consequence?

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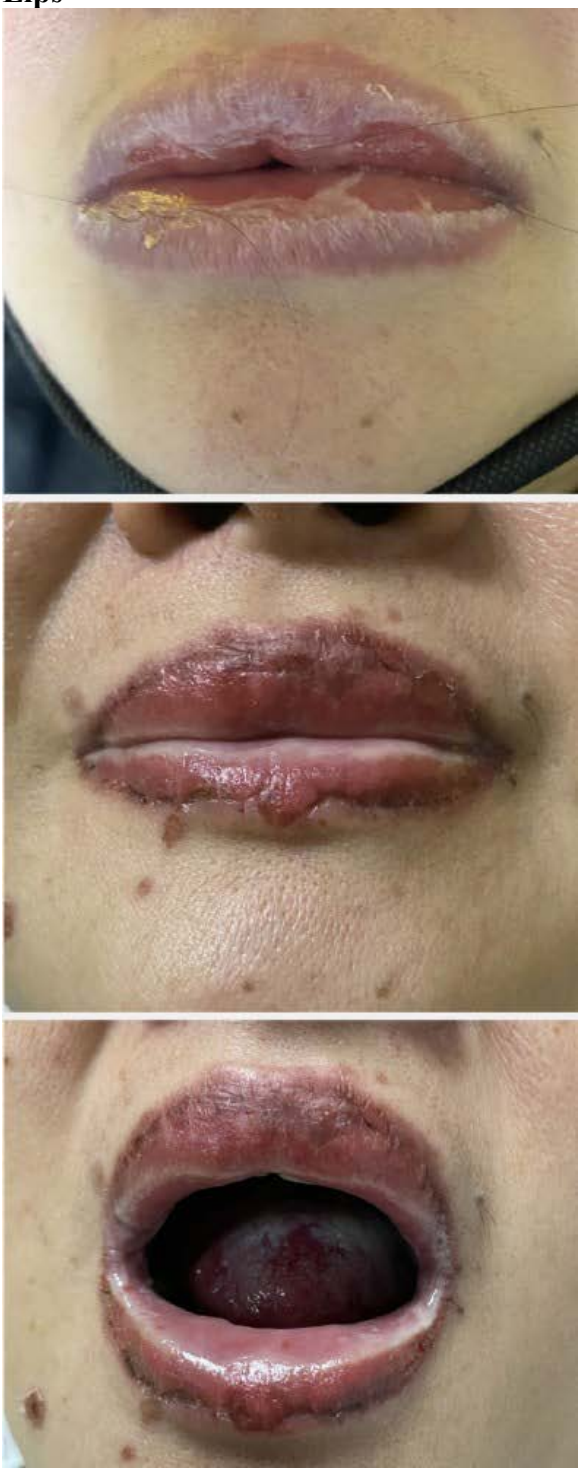
Stevens-Johnson Syndrome (SJS) is a rare but serious condition characterized by a severe reaction to medication or infection, resulting in painful, blistering skin rashes and potentially life-threatening complications. There is limited research available on the specific incidence of SJS exacerbated by COVID-19. However, it is known that SJS can be triggered by viral infections, and some reports suggest an increase in the incidence of SJS during pandemic outbreaks. There are several but limited research regarding how SJS can be exacerbated by COVID-19. Viral infections are known to have decreased the threshold of drug reactions by inducing a pro-inflammatory state in the body.

We report a case of a 53/F, presented with a 3 day history of fever, cough, sore throat and dysuria with a positive SARS COV RTPCR Test. Patient was started on Remdesivir. Patient presented with matting of the eyelashes, desquamation of the lips and burning sensation of the eyelids with noted erythematous to hyperpigmented papules and some vesicles on the groin as well as erosions on the labia majora extending to the anus with a tendency towards confluence. The patient has a history of Allopurinol use prescribed 2 months ago for Uric Acid stones with no noted adverse reactions. Steven Johnson Syndrome was suspected, with allopurinol as the primary suspect. SCORTEN was 1 which meant a 3% mortality. Hematologic results were normal, Chest Radiograph and Liver function test were within limits.Patient was started on Hydrocortisone 100mg IV with noted gradual improvement in skin lesions.

Steven Johnson's Syndrome is a rare and serious skin disorder that can be triggered by medication or infection. SJS typically causes a severe rash with blistering and peeling of the skin, along with flu-like symptoms such as fever and fatigue. While there have been case reports of SJS and related conditions like toxic epidermal necrolysis (TEN) in patients with COVID-19, the relationship between the two conditions is not well understood. It is possible that COVID-19 may trigger or exacerbate SJS in some patients, particularly those who are already at risk due to underlying health conditions or medications. Prompt Recognition and Treatment is necessary to prevent further complications.

Keywords: Steven Johnson, COVID19, SCORTEN

Lips



Noted sloughing of the Lips

PP-24 [Miscellaneous]

Erythema Papulosa Semicircularis Residiva: A Rare Entity

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Introduction & Objectives: Erythema papulosa semicircularis recidiva (EPSR) was first described in 2012 as a figure of erythema consisting of red papules arranged in a semicircular pattern on a slightly erythematous background that expands centrifugally. The rash typically appears in early summer, resolves spontaneously by late autumn, and recurs in the same seasonal period the following year. Lesions most commonly occur on the trunk and proximal parts of the extremities; the face, palms, and soles are usually spared. In this case report, we aim to emphasize the clinical features of EPSR which is a rare entity.

Materials & METHODS: A 29-year-old male patient presented to the our out-patient clinic with a complaint of persistent and progressively enlarging redness on the left side of his trunk for about 2 months. The patient reported a similar lesion in the same area one year ago. After the dermatological examination, a ring-shaped lesion approximately 20 cm in diameter was identified on the anterior aspect of the left trunk, consisting of central pallor and erythematous margins with millimetric papules (Figure-1). There were no significant findings in the patient's medical or family history. Histopathological examination of a punch biopsy specimen from the erythematous papules revealed orthokeratosis, focal parakeratosis, and irregular acanthosis in the epidermis. Dense lymphocytes and eosinophils were observed in the perivascular area of the superficial dermis, along with focal extravasation of erythrocytes in the interstitial area. Based on these clinical and histopathological findings the patient was diagnosed with EPSR.

CONCLUSIONS:: EPSR is a rare entity that should be considered in the differential diagnosis of erythematous annular lesions. The most important differential diagnosis is erythema annulare centrifugum's annual recurrent subtype. EPSR recur in warm seasons and accompanied by erythematous papules at the margins on clinical examination. These clinical features helps differentiate it from other annular lesions.

Keywords: annular, erythema, semicircular, recidivans

PP-25 [Infectious Diseases, Parasitic Diseases, Infestations]

A Verrucous Plaque on the Ankle: Tuberculosis Verrucosa Cutis

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Introduction & OBJECTIVES:: Tuberculosis (TB) is still a problem in the developed and underdeveloped countries, and cutaneous TB is a small part of extrapulmonary forms. Tuberculosis verrucosa cutis (TVC) is a common cutaneous form of paucibacillary tuberculosis in an individual with moderate to high degree of immunity to Mycobacterium tuberculosis infection. The diagnosis of cutaneous TB is often difficult because the clinical appearance of the lesion is often atypical. Acid fast staining test may be inconclusive in patients with high immune status. Herein, a 50-year-old female patient with TBV was reported. Describe of the exogenous cutaneous tuberculosis types clinical features and treatment options were aimed.

Materials&Methods: A-50-year-old female presented with a three years of history of steadily growing plaque on her right tibia-ankle level. He had a history of pulmonary tuberculosis as a child and a history of similar cutaneous tuberculosis 10 years ago. On dermatologic examination, a sharply circumscribed plaque lesion with a diameter of approximately 8 cm with a hyperkeratotic, densely crusted and infiltrated hyperkeratotic dense crust with a livid area around it, which was expressed to be growing at the right tibia-ankle level. All laboratory tests were negative except c-reactive protein, erythrocyte sedimentation rate and white blood count. Serology tests for viruses were negative except anti-HBV immunoglobulin G positive. Also Quantiferon test for mycobacterium tuberculosis were positive. Skin biopsy showed parakeratosis on the surface, acanthosis in the epidermis, focal lichenoid pattern, necrotizing granuloma accompanied by giant cells in the dermis. X-ray of the chest was normal. Based on these histopathological findings, a diagnosis of TBV was made. Antituberculosis treatment were planned. CONCLUSIONS: Cutaneous tuberculosis, as part of the TB spectrum, can still comprise a challenge for clinicians worldwide. Compatible skin lesions and histology should support the decision to initiate treatment. Quick response to treatment provides the most valuable evidence of an accurate diagnosis.

Keywords: tuberculosis, verrucous, Quantiferon

PP-26 [Corrective, Aesthetic and Cosmetic Dermatology]

Burn-Out En-Coup de Sabre Lesion Treated by Autologous Fat Transplantation

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INTRODUCTION: Morphea or localized scleroderma is a rare inflammatory cutaneous disorder mainly including dermal and subcutaneous layers of the skin. Morphea can be categorized into four subtypes; limited, generalized, deep and linear forms according to the distribution and depth of lesions. En coup de sabre(the blow of a sword) is a variant of linear morphea that affects predominantly children and women and is localized to the frontotemporal region. It is characterized by presence of linear atrophy and hardening of the skin, subcutis, but occasionally

extends to the muscle fascia and bones. Treatment selection depends on the inflammatory activity, depth and extent of the lesions. Herein, we report the results of a fourteen year old girl with a burn-out en-coup de sabre lesion by autologous fat transplantation.

METHODS: A fourteen year old girl presented with an atrophic, depressed, dyschromic, patch localized to the left paramedian region of the forehead. Before admission, she was diagnosed with en coup de sabre and had received topical corticosteroids and vitamin d analogues for three years. Within the last year, a growth or new lesion appearance wasn't detected. She was seeking for a treatment to improve the aesthetic sequelae of this lesion. Autologous fat injection was suggested as a therapeutic strategy. Under tumescent anesthesia, fat was harvested by gentle liposuction from the inferior part of the umblical region and mechanical methods were used to prepare milifat and microfat products. The end products were injected to the recipient area in a single session. At the 6th-month control, the aesthetic improvement was very satisfactory and no complications were noted.

Discussion: The presence of mesenchymal stem cells within the adipose tissue evolved the position of autologous fat grafting. In addition to volume enhancing properties related to fat injection, especially fat products enriched in mesenchymal stem cell content may stimulate regeneration, attend immunomodulatory and anti-sclerosing properties. Autologous fat transplantation can be considered an efficient, safe, satisfactory approach for the treatment of burn-out en-coup de sabre.

Keywords: Morphea, En-Coup de Sabre, Autologous fat transplantation

PP-28 [Infectious Diseases, Parasitic Diseases, Infestations]

Turkish Bath Dermatosis

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There is an increasing interest in public places such as swimming pools, Jacuzzis, and saunas, especially in big cities and resorts, for both sports and entertainment purposes at the present time. Also, public baths continue in some countries known as tourists' destinations such as Turkey. Public baths are potential sources of specific dermatologic disorders.

In Turkey, public baths (Turkish baths) are not only a historical and touristic place, but also an important part of social life. People used the traditional Turkish bath for centuries to cleanse themselves, protect their health and treat various diseases. This common use of areas, may cause the development and spread of some dermatoses facilitated by contact with water.

A traditional Turkish bath "hamam" is a bathing place that consists of three or four different rooms with different temperaments. The first room is cold and humid, the second is hot and humid, the third is hot and dry, and the fourth room is the usual waiting or resting room of the bath. The four rooms of the bath reflect the four seasons: autumn, summer, winter, and spring and work most effectively at temperatures between 43°C (110°F) and 46°C (116°F) and humidity corresponding to 100% in the steam bath. This requires an active steam generator, a true control system, and a steam compact cabin to avoid the steam from being lost and damaging the material of the surrounding room. A typical Turkish bath consists of three interconnected basic rooms with a water storage area. People undress and leave their belongings at the entrance, which is also called a "Frigidaire". "Ilıklık" is a medium-temperature room heated by a continuous flow of hot and dry air, allowing the user to gradually acclimate to the temperature rise during the transition from

unheated entrance to heated rooms. The "caldaria" is the real heart of the bath. Smaller rooms, called navel stones (i.e., marble slabs), with steam baths and massage facilities, where guests can lie down to relax or have a massage, are located above the "caldaria".

Although there are so many benefits of the Turkish Bath on health, it may be possible for some infections of the skin to be transmitted from the floor and instruments of these areas. Tinea pedis, verruca, molluscum contagiosum, and pseudomonas aeruginosa folliculitis are among these infections. Aside from skin-related infections, there are also certain dermatoses that can be developed or exacerbated by contact with water. These dermatoses include asteatotic dermatitis, contact dermatitis, aquagenic urticaria, and xerosis.

In this poster, we review Turkish bath-related infectious and non-infectious dermatoses.

Keywords: Turkish bath, dermatoses, hamam

PP-29 [Cutaneous Oncology]

Co-Occurrence of Morphea and Granular Cell Tumor: A Rare Case Report

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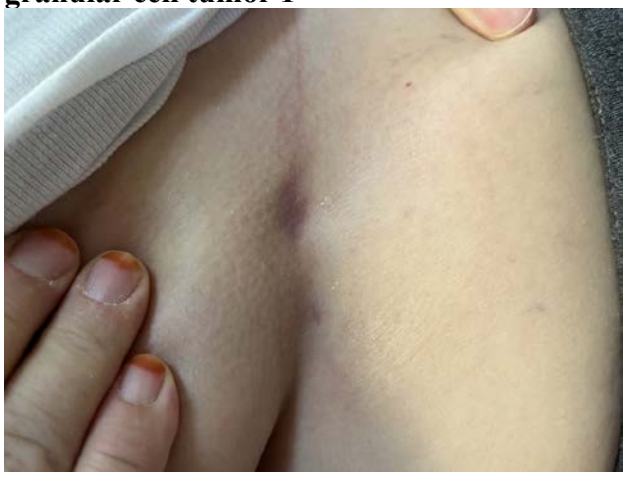
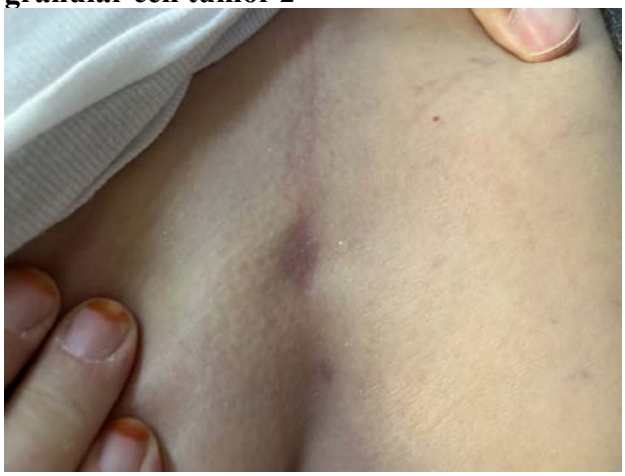
Granular cell tumors (GCTs) are rare neoplasms originating from Schwann cells, constituting only 0.5% of soft tissue tumors. These tumors are characterized by distinctive granular eosinophilic cytoplasm and typical nuclei containing abundant lysosomes. GCTs are predominantly benign and solitary, although rare instances of malignancy (approximately 2%) and multiple lesions (5-10%) have been reported. Morphea, also known as localized scleroderma, is a chronic inflammatory disorder affecting connective tissues. It primarily manifests as inflammation and fibrosis of the skin and underlying soft tissues. The annual incidence of morphea ranges from 4 to 27 new cases per million individuals. Notably, females are disproportionately affected, with a female-to-male ratio of 4:1.The pathogenesis of morphea remains elusive, with several implicated factors including genetics, environmental triggers (such as infections and skin trauma), autoimmune dysregulation, and vascular dysfunction. Morphea follows a chronic relapsing-remitting course, potentially leading to significant cosmetic, physical, and mental impairments due to tissue atrophy and extracutaneous complications. In this case report, we present a 57-year-old female with a palpable lesion beneath her left breast. She had a history of long-standing morphea localized to her abdomen and legs since 2016. Despite recurrent therapeutic interventions, including UVA1 phototherapy and topical calcipotriol and betamethasone, the patient exhibited persistent and treatment-resistant morphea. Imaging in 2024 revealed a 14x9mm hypoechoic lesion at level 6 of the left breast, classified as BIRADS-3, with subcutaneous extension to the underlying parenchymal tissue. A tru-cut biopsy was performed, and pathological examination revealed cell infiltration with large eosinophilic granular cytoplasm, suggestive of a granular cell tumor. Positive immunohistochemical staining was observed for S100, CD68, and SOX10, while staining for pankeratin was negative. The association between morphea and granular cell tumors is not well-established. While phototherapy has been linked to an increased risk of skin cancers, including basal cell carcinoma and squamous cell carcinoma, there is no research on granular cell tumors. Our case highlights the importance of considering this rare tumor in patients with long-standing morphea who have undergone phototherapy. In a comprehensive literature search in PubMed, covering all fields and all time periods, the query ((“morphea” OR “localised scleroderma” OR “circumscribed scleroderma”) AND (“granular cell tumour*”)) was used. No previous reports of co-occurrence between morphea and granular cell tumours were identified. This finding underlines the exceptional nature of the case in this presentation.

Keywords: morphea, granular cell tumor, UVA1 phototherapy

granular cell tumor 1

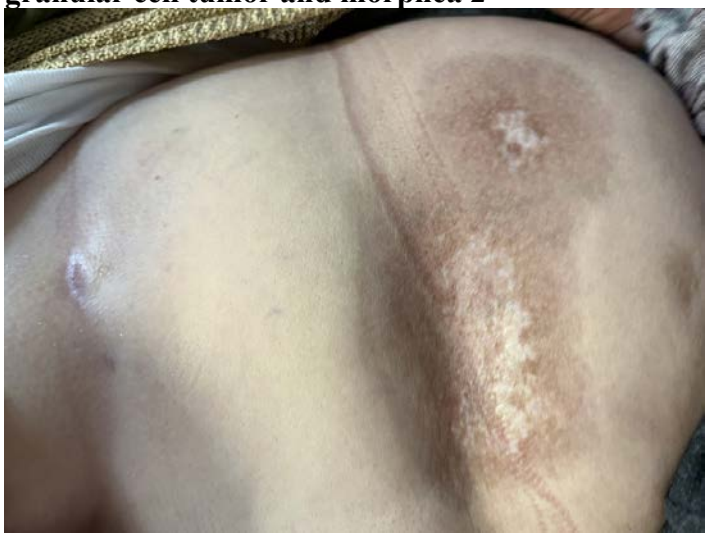


granular cell tumor 2



granular cell tumor and morphea 1

granular cell tumor and morphea 2



PP-30 [Infectious Diseases, Parasitic Diseases, Infestations]

Diagnosis of Human Immundeficiency Virus, and Syphilis in a patient presenting with severe ophthalmic zona

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INTRODUCTION & OBJECTIVES:: Herpes zoster (shingles) is an infectious clinical condition resulting from the reactivation of latent Varicella Zoster Virus. Herpes zoster ophthalmicus (HZO) is a reactivation of a latent infection with the varicella-zoster virus (VZV) in the distribution of the ophthalmic branch of the trigeminal nerve.HZO is more common in patients who have underlying comorbidities. Following paresthetic sensations such as burning, tingling, itching, and/or neuralgia, erythema appears, followed by vesicular rash.Vesicles appear unilaterally in any or all branches of the ophthalmic nerve. Vesicles,erythema and edema are also observed on the periocular skin and eyelids.Patients often present with unilateral marked swelling and vesicles on the forehead, scalp,and eyelids. Necrotic crusts may develop over the vesicles. HZO may affect any layer of the eye.HZO may also cause cranial nerve palsies.Symptoms of the ocular

involvement include eye pain,tearing,redness,and blurred/decreased vision.

MATERIALS&METHODS: A 50 year old male patient presented with complaints of a wound in the left eye for 12 days.Upon dermatological examination,exudative vesicles extending from around the left eye to the left occipitotemporal region,along with linear erythematous ulcerous lesions on the left eye medial and frontal areas,were observed.The patient reported headache and eye pain,decreased vision,burning,and stinging in his left eye.Necrotic crusts were observed in some areas of the distribution mentioned above. The patient was consuled to the ophthalmology.In the left eye,there was hypoesthesia, granulomatous keratic precipitate,mild corneal edema,and minimal descemet membrane involvement.Ophthalmology primarily considered a diagnosis of herpetic keratouveitis. There were no known medical conditions in the patient's medical history.

The advanced investigations conducted for intravenous treatment and investigation of underlying causes revealed HIV and syphilis positivity.The patient received parenteral penicillin treatment for syphilis and was referred to the infectious diseases department for HIV treatment.

RESULTS: Due to the patient's severe skin and ocular involvement,serology was performed to investigate suspicions,leading to the diagnosis of HIV and syphilis.The patient's immunosuppression suggested susceptibility to zoster on further investigation.After taking a single-dose preparation containing,bictegravir 50 mg,emtricitabine 200 mg,and tenofovir 25 mg,and acyclovir daily,and 10 mg/kg/dose 3 times daily for 10 days.The patient's vesicular eruptions ceased,the ulcerative lesions dried.

CONCLUSIONS: Ophthalmic zoster primarily presents as a group of vesicular lesions,but in this case,its ulcerative skin lesions and severe eye involvement indicated the necessity for further investigations. Resistant,atypical or severe clinical presentation of zoster cases should be further investigated for underlying conditions.

Keywords: Herpes zoster ophthalmicus, HIV, immunosuppression, Syphilis

PP-31 [Oral Mucosa and other Skin-adjacent Mucous Membranes]

Plasma Cell Mucositis: A case report

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[2]Department of Pathology, Ankara Bilkent City Hospital, Ankara, Turkey

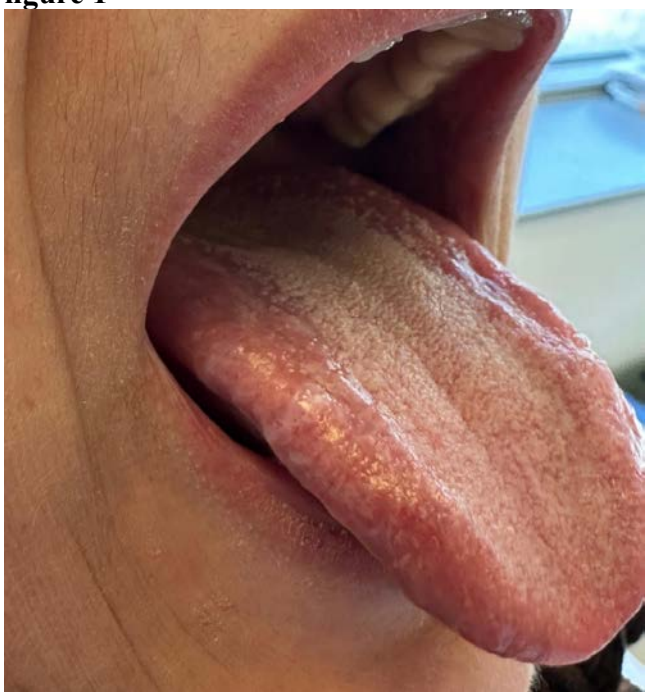
INTRODUCTION: Plasma cell mucositis (PCM) is an unusual plasma cell proliferative disorder of the upper aerodigestive tract. PCM is more common in males in the elderly age group, the average age being 56.6 years.Common symptoms are oral pain, sore throat, dysphagia, gingivitis and oral burning sensation.

Case Presentation: A 58-year-old female with no known diseases presented with a slowly growing multiple, gray coloured milimetrical papules with minimal ulceration on her lateral tongue.The lesions were present for 1 year and growing slowly since then. The patient was showing pain and burning sensation. She described no history of trauma, dental procedure, consuming irritating foods or any other drug administration. Complete blood count,serum B12 and folate,urea, electrolytes,liver function tests, glucose, anti-nuclear antibody, and syphilis IgG that were normal or negative. In the past, the patient was prescribed with topical analgesics, topical antibacterial and antifungal sprays, oral pentoxifylline and famotidine with no improvement.The patient was evaluated in another hospital with the same complaints and had a incisional biopsy with preliminary diagnosis of lichenoid drug reaction and squamous cell carcinoma which resulted with no spesific diagnosis. The patient was colsulted to our clinic for re-evaluation. The histopathology and clinical signs were supportive for the diagnosis of PCM.The biopsy showed a hyperplastic epithelium with mixed inflammation containing predominantly of mature plasma cells and other inflammatory cells in submucosa.The plasma cell infiltrate was positive for CD38 and CD138. Immunohistologic studies revealed kappa and lambda light chains were positive with mild predominancy of kappa light chain which showed no clonality

After the diagnosis, intralesional triamcinolone acetonide (2.5 mg/mL) was performed once. The lesion showed regression on the first follow-up. Discussion and CONCLUSION: PCM is chronic and majority of the cases are associated with autoimmunity mediated disease such as Rheumatoid Arthritis, Diabetes Mellitus,Psoriasis and Sjögren's syndrome. There is no history of frequent use of common oral allergens or evidence of allergy on patch testing. In our case the patient was evaluated for DM, Psoriasis,Sjögren's syndrome and RA which resulted negative. It is important that PCM is recognized in the dermatologic community, because diagnosis is dependent on clinical pathologic correlation. Nevertheless, it is very important to differentiate the PCM disease from other neoplastic conditions in order to achieve a better clinical management of the patients, so it is necessary to investigate this disease in depth. Recognition of PCM can be alarming for underlying autoimmune diseases. Documentation and reporting of PCM cases will bring greater awareness of similar cases.

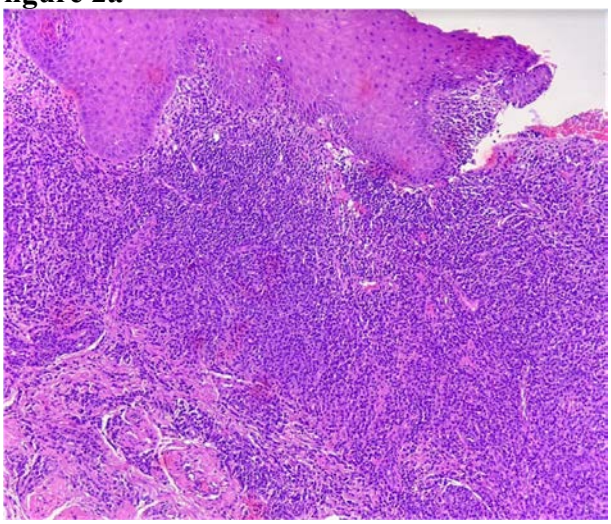
Keywords: plasma cell mucositis, mucosa, plasma cell, tongue

figure 1



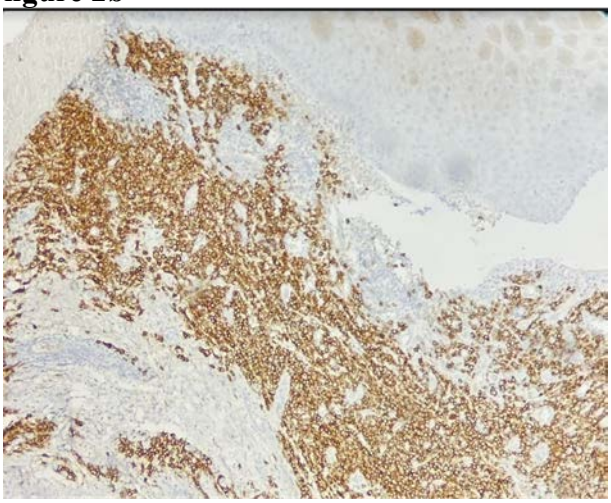
slowly growing multiple, gray coloured milimetrical papules with minimal ulceration on lateral tongue

figure 2a



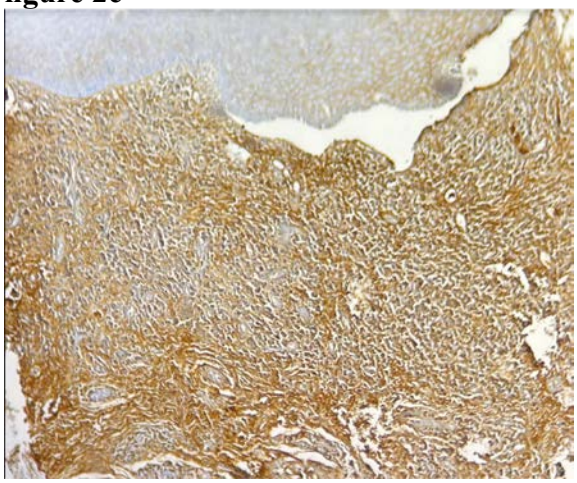
biopsy showed a hyperplastic epithelium with mixed inflammation containing predominantly of mature plasma cells and other inflammatory cells in submucosa (H&E).

figure 2b



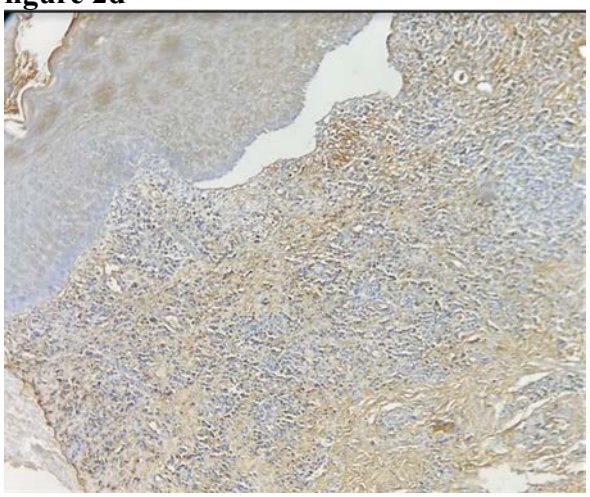
The plasma cell infiltrate was positive for CD38 and CD138 (Fig 2b)

figure 2c



Immunohistologic studies revealed kappa and lambda light chains were positive with mild predominancy of kappa light chain which showed no clonality (Fig 2c,2d).

figure 2d



Immunohistologic studies revealed kappa and lambda light chains were positive with mild predominancy of kappa light chain which showed no clonality (Fig 2c,2d).

PP-32 [Inflammatory Skin Diseases]

Atypical Atrophic Lichen Planus: A Case Report

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INTRODUCTION&OBJECTIVES: Atrophic lichen planus is a rare variant that can occur in areas previously affected by other lichen planus (LP) variants.The exact aetiology of atrophic lichen planus is not fully understood, which creates difficulties in diagnosis and treatment.Cutaneous lesions in atrophic lichen planus typically occur on areas of skin previously affected by LP lesions. These atrophic lesions exhibit well-circumscribed white-bluish or brown papules and plaques and usually appear ring-shaped or after resolution of ulcerative lesions. Common sites of involvement include the axilla, glans penis, lower extremities and trunk. The preference for these sites and the presence of atrophy in the lesions distinguish atrophic lichen planus from other LP variants.In this case report, we present a rare case of atrophic lichen planus of the face, particularly in the mandibular region, in a 45-year-old woman with no comorbidities. The report highlights the unusual localisation of ALP and its successful treatment with systemic corticosteroids.

MATERIALS&METHODS: 45-year-old woman presented to the dermatology clinic with a six-month history of progressive pigmentation on the face, especially in the mandibular region. The lesions were pruritic and progressive. On physical examination, atrophic hyperpigmented papules and plaques were observed on the forehead and mandibular region extenting towards the neck. Although facial involvement was atypical, the clinical presentation raised suspicion for atrophic lichen planus. Differential diagnoses including localised morphea, discoid lupus erythematosus, contact dermatitis and post-inflammatory hyperpigmentation were considered. Skin biopsy was performed and sparse lymphocyte exocytosis and single cell necrosis in the basal layer on a thin margin in the epidermis under the

orthokeratosis layer, sparse single cell necrosis in the basal layer in other areas, prominent macrophages in the dermis, perivascular sparse lymphocytes were observed. As a result of clinical findings and tests, the patient was diagnosed as atrophic lichen planus.

RESULTS: Considering the extent and severity of facial involvement, systemic corticosteroids were planned as first-line treatment. The patient was started on an initial dose of 32 mg oral methylprednisolone and then the dose was gradually decreased over 8 weeks. Significant improvement in symptoms and reduction in atrophic changes were observed during the three-month follow-up period.

CONCLUSIONS: This case, although rare, highlights the importance of considering ALP as a potential diagnosis in cases involving atrophic lesions. Although ALP predominantly affects areas previously affected by other lichen planus variants, our report demonstrates that it can occur in unexpected anatomical sites. This highlights the importance of having a broad differential diagnosis and performing comprehensive evaluations to ensure accurate diagnosis and appropriate treatment.

Keywords: lichen planus,atrophic lichen planus,hyperpigmentation,inflammatory disorders

PP-33 [Autoimmune Bullous Diseases]

A case of pemphigus vulgaris associated with Behcet`s disease

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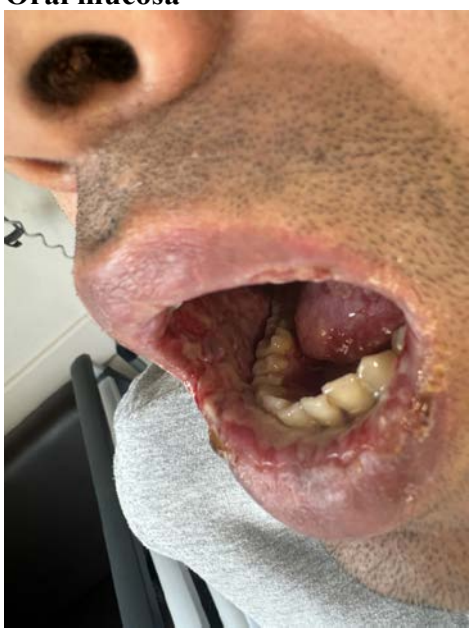
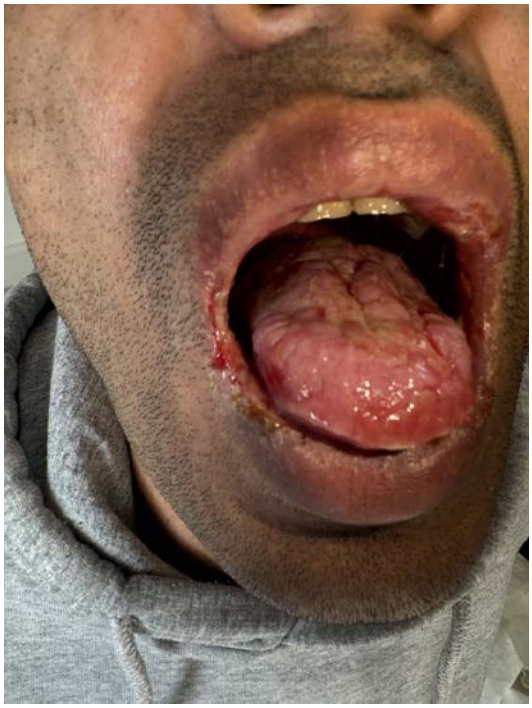
Pemphigus vulgaris (PV) is a rare autoimmune disorder in which circulating autoantibodies target desmosomal proteins to produce intraepithelial blistering. It may occur concomitantly with other autoimmune diseases including myasthenia gravis, rheumatoid arthritis and Grave's disease, but it has not been previously reported to be associated with Behcet's disease in Turkey. A 29-year-old man was diagnosed with Behcet's disease by another medical centre, which he had been having once in 4 months of recurrent oral aphthosis that began 4 years ago with a positive pathergy test. The patient had a visit to our clinic two years ago after 2 months of compliant of unrelieved wounds in his oral mucosa, from which had been performed a biopsy that resulted in a Pemphigus vulgaris.In his last visit, a physical examination showed common erosive areas in the oral mucosa and a scar on the genital region, which he reported having a genital ulcer about 4 months ago which supports Behcet's disease. The patient had no family history. Histopathological examination showed vesiculobullous dermatitis and intraepithelial acantholysis. Direct immunofluorescence test revealed a predominance of IgG pericellular staining and C3. After PV and Behcet's disease were diagnosed, the lesions on the oral mucosa were relieved with prednisolone medication. The patient was going to be prepared to have rituximab treatment. However, he denied the treatment cause of private causes. We report a rare case of PV associated with Behcet's disease.

Keywords: Pemphigus vulgaris,Behcet's disease,Rituximab

Oral mucosa



Oral mucosa



PP-34 [Dermatology and Internal Medicine, including Skin Manifestations of Systemic Diseases]

"Are collagen supplements triggering in autoimmune skin diseases?"

MELİSA ORDU, umit tursen
MERSİN ÜNİVERSİTESİ, DERMATOLOJİ ANA BİLİM DALI, MERSİN

"The utilization of oral dietary supplements is progressively pervasive on a global scale. Nevertheless, our understanding of the potential adverse effects associated with these supplements, utilized either for cosmetic enhancement or health-related purposes, remains limited. A pertinent inquiry arises concerning the propensity of these supplements to incite adverse effects on autoimmune conditions. Investigations conducted at the University of Pennsylvania have delineated that certain algae, employed as constituents in dietary supplements like alfalfa, echinacea, and spirulina, exhibit the capacity to instigate autoimmune dermatological ailments, as evidenced by in vivo and in vitro studies. Moreover, extant literature documents instances of autoimmune arthritis precipitated by collagen administration in murine models. Notably, the collagen-induced arthritis (CIA) mouse model stands as the most extensively explored paradigm of autoimmune rheumatoid arthritis. A procedural framework elucidating the requisite steps for the acquisition, manipulation, and preparation of CII, alongside the selection of murine strains, appropriate immunization methodologies, and the assessment of arthritis incidence and severity, has been delineated. Presented herein is a case study involving a patient who developed bullous pemphigoid subsequent to collagen supplementation. A 71-year-old female patient presented with generalized pruritus persisting over the preceding month, accompanied by cutaneous lesions emerging within the prior week. Clinical examination revealed the presence of bullous lesions distributed across erythematous plaques on various regions of the body, concomitant with erosive lesions within the oral mucosa. Notably, the patient lacked any history of known medical conditions or medication utilization, save for recent collagen supplement intake. Subsequent discontinuation of collagen supplementation was instituted. A tentative diagnosis of bullous pemphigoid was established, prompting the performance of a biopsy for further diagnostic clarification and therapeutic stratagem formulation. Histopathological analysis substantiated the diagnosis of bullous pemphigoid. Given the absence of identifiable precipitating factors, contemplation ensued regarding the potential role of collagen supplements in instigating the autoimmune event."

Keywords: bullouse pemfigoid, herbal supplements, autoimmune skin disease, collagen supplement, collagen supplements side efects

PP-35 [Nail Disorders/Diseases]

Treatment of pediatric trachyonychia case with tazarotene

Ruveyda Küçük, Ralfi Singer, Cemre Berin Güngör, Isikhan Ozkir, Ilteris Oguz Topal
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Introduction & Objectives: Trachyonychia is a disorder of the nail unit that most commonly presents with rough, longitudinally ridged nails (opaque trachyonychia) or less frequently, uniform, opalescent nails with pits (shiny trachyonychia)[1]. Trachyonychia, also known as 'rough nails' or 'sandpaper nails', can involve any number of nails. Trachyonychia can occur in patients of all ages, though children tend to be more frequently affected[2]. Herein, we present a case of pediatric trachyonychia treated with tazarotene.

Materials & METHODS: A 11 -year-old boy was referred for evaluation of nail changes on his five fingernails of two months duration. Two of fingernails showed a rough, opaque surface, longitudinal ridges, and a 'sandpapered' appearance and they were brittle. Three of them maintained lustre, presented with numerous small pits. Total leukonychia was observed in the remaining fingernails (figure1). The patient had no personal or familial history of skin disease and no history of trauma, drug exposure or infection. Skin,mucosa and hair examination did not reveal any other lesions or findings. No pain and inflammatory findings were observed in the periungal area. but the patient had appearance concerns and difficulty in daily work No abnormal values were found in routine laboratory investigations. Onychomycosis was excluded by direct microscopic examination. According to the described clinical findings, a diagnosis of idiopiathic trachionychia was considered. Tazarotene 0.1% gel was applied once daily, overnight, without occlusion to the affected nail plates and nail folds for a period of 12 weeks, gradually increasing the application time.

RESULTS: The patient showed significant improvement of the nail trachionychia features, especially longitudinal rigdes. Fragility disappeared and nail growth was normal. Pitting,appeared to be most persistent (Figure 2). Tolerability was excellent: the only side effect, in the first week of treatment, was mild local erythema of proximal nail fold. No relapses were observed in the follow-up period and our follow-up continues. Patient and his parents estimated the efficacy of the treatment as good and his cosmetic complaints were reduced.

Conclusıons: The exact etiology of the inflammation that affects the nail unit in patients with trachyonychia continues to remain unclear. Despite the benign and often self-limited nature of the disease, some patients will ask for therapy. More conservative treatments should be prioritized especially in pediatric patients, In this context, topical tazarotene seems to be a good treatment option with minimal side effects and easy applicability. In the literature, we could find only one report describing the efficacy of tazarotene in trachyonichia (3). More studies are needed to elucidate the mechanism of action of tazarotene in nail disorders.

Keywords: trachyonychia, nail disorders, tazarotene

Figure-1

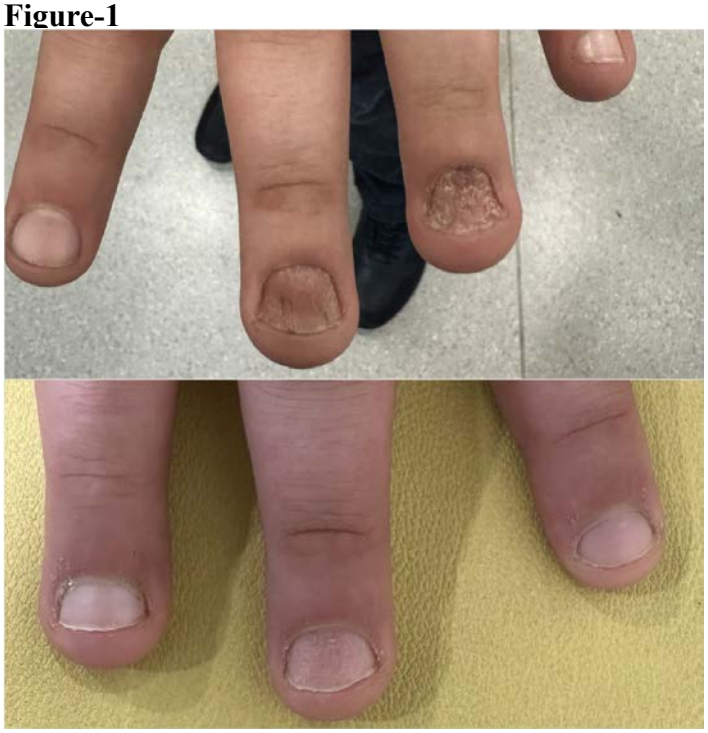
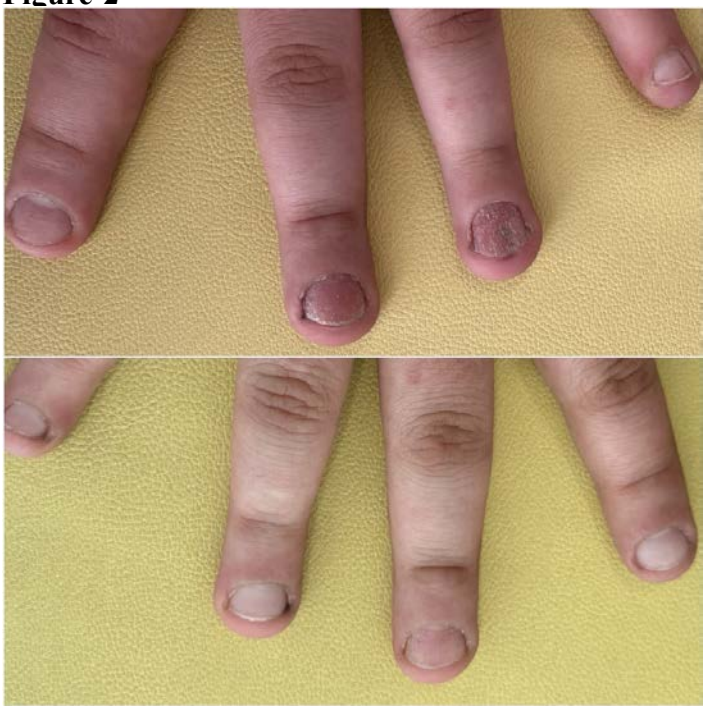


Figure-2



PP-37 [Cutaneous Oncology]

A Rare and Unusual Presentation of Trichoadenoma over the Axillary Region

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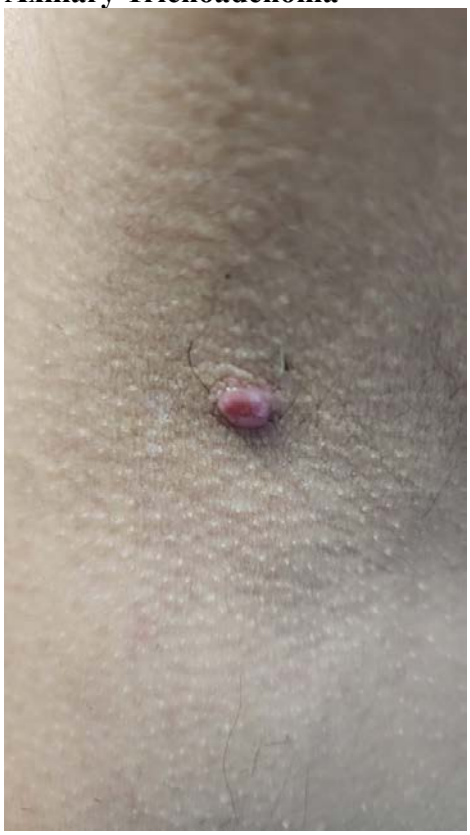
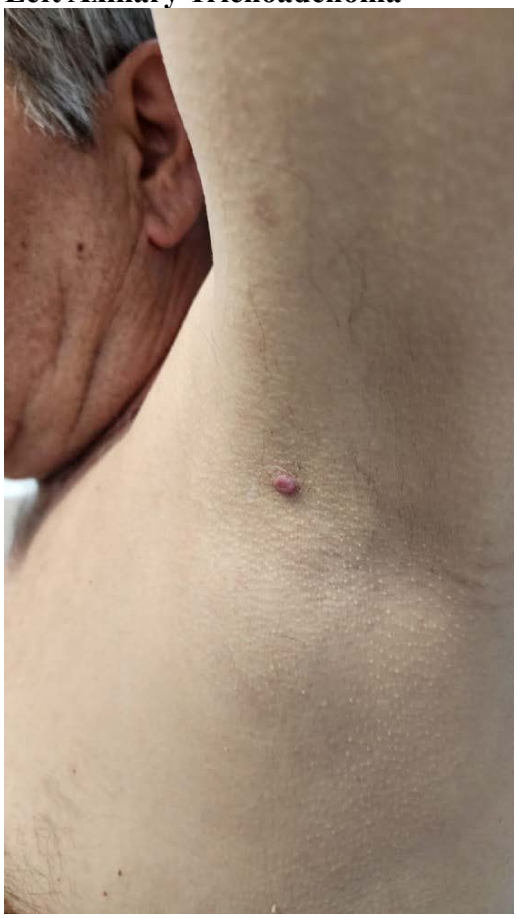
Trichoadenoma, a benign dermatological neoplasm, is characterized by its indolent growth pattern and distinct cutaneous manifestation. It predominantly presents as a well-differentiated, solitary lesion. It seems usually ranging from 1-3 cm in diameter, most commonly seen on over the face (57.5%) and buttocks (24%). Morphologically situated between trichofolliculoma and trichoepithelioma, it illustrates a spectrum of differentiation. In this case 59-year-old male presented with asymptomatic, solitary umblicated papule observed in located within the left axillary area. The tumoral lesion exhibited progressive enlargement over a fifteen-year period. We performed punch biopsy using a 6 mm punch with the prediagnoses of molluscum contagiosum, syringoma, trichoadenoma, trichoepithelioma and trichofolliculoma. Histological examination post-excision confirmed the diagnosis of trichoadenoma. Trichoadenoma over the axillary region is known to be clinically rare, thereby broadening the dermatological understanding of its anatomical distribution. As far as clinically known, there is no other case of trichoadenoma in the axilla and we report this case because of its rarity.

Keywords: Trichoadenoma, Axilla, Benign Tumour

Axillary Trichoadenoma



Left Axillary Trichoadenoma



PP-38 [Inherited Skin Diseases]

Case report: Association of epidermodiplasia verruciformis, morphea, peripheral artery disease, alopecia areata

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Introduction and PURPOSE: Epidermodiplasia verruciformis is a rare disease. Morphea, alopecia areata and peripheral artery disease may also be seen in this disease.

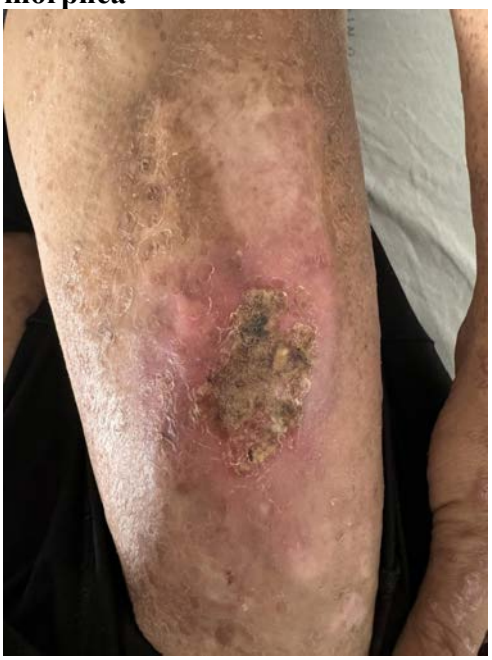
MATERIALS-METHODS: 31-year-old male patient, truck driver, diagnosed with epidermodysplasia verruciformis (2006), morphea (2013), peripheral artery disease (2013), alopecia areata (2020). The diagnoses of epidermodiplasia verruformis and morphea are shown pathologically. Peripheral artery disease was demonstrated by Doppler ultrasonography.

CONCLUSIONS: In addition to the rare disease epidermodysplasia verruciformis, autoimmune diseases such as morphea and alopecia areata may also accompany it. Peripheral artery disease may occur.

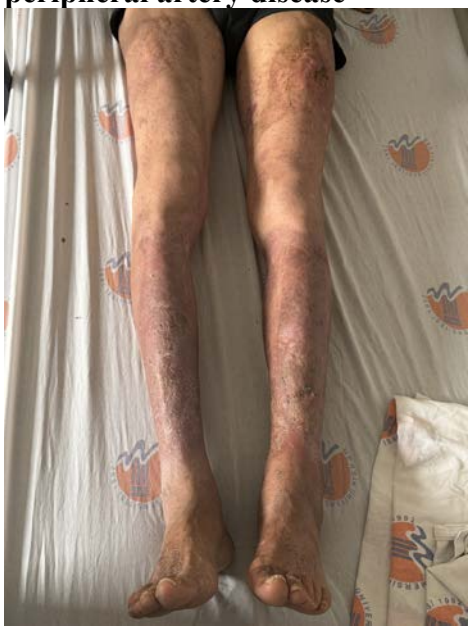
Keywords: pidermodysplasia verruciformis, mophea, alopecia areata, peripheral artery disease

epidermodysplasia verruciformis

morphea



peripheral artery disease



PP-39 [Miscellaneous]

Appendageal skin tumor of the face: Fibrofolliculomas and associated genetic syndromes

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Introduction and Objectives: Appendageal skin tumors (AST) or skin adnexal tumors (SAT) are a large and diverse group of benign and malignant neoplasms; fibrofolliculomas are a type of AST that present as single or multiple benign, small, nondescript papules on the head and neck, requiring additional evaluation depending on the number of lesions present.

Materials & METHODS: We present a case of a 48-year-old man with a 5-year history of an asymptomatic slow-growing lesion on his left lower eyelid. Physical examination revealed a 6 mm x 5 mm flesh-colored, dome-shaped, smooth-surfaced papule on the left lower eyelid. He had no personal or family history of skin cancer and was taking no medications. Also, family history was negative for spontaneous pneumothorax or renal cell carcinoma. A deep tangential shave biopsy was performed, and the histologic examination showed a proliferation of epithelial strands radiating outward from a central follicular structure within a perifollicular fibrous sheath. RESULTS: Fibrofolliculomas often present as white-colored dome-shaped smooth papules between 2-4 mm that appear on the head, neck, or upper trunk. Some lesions may be of a larger size like the one presented in this case. They are also asymptomatic and do not regress. As papules of the face may have different etiologies, histopathologic examination is the gold standard for diagnosis. The shave biopsy of the patient presented confirmed the diagnosis of fibrofolliculoma. Fibrofolliculomas present solitarily or in multiples. Solitary lesions do not warrant further examination or testing as they are most likely to be non-hereditary and not associated with any other disorders. However, the presence of multiple fibrofolliculomas increases the likelihood of association with other syndromes or hereditary diseases, prompting further investigation. The most common syndrome associated with multiple fibrofolliculomas is Birt-Hogg-Dubé syndrome (BHDS), which is an autosomal dominant disease. Early recognition of this syndrome is critical as it is associated with many complications including several types of kidney cancer and spontaneous pneumothorax. The latter has a risk of morbidity and mortality and prompts further evaluation for possible pulmonary cysts. The negative family history of spontaneous pneumothorax and kidney cancers made this possible diagnosis unlikely. However, other syndromes presenting with fibrofolliculomas include Brooke-Spiegler syndrome, Cowden syndrome, basaloid follicular hamartoma syndrome, tuberous sclerosis, and Rombo syndrome.

CONCLUSION: Fibrofolliculoma is a benign, asymptomatic, smooth, domed solitary papule that appears mainly on the head and neck area. Surgical removal is usually performed for symptomatic lesions or for cosmetic purposes. Multiple fibrofolliculomas may be associated with BHDS or other genetic syndromes. Patients with such presentations will need further evaluation and genetic testing.

Keywords: Fibrofolliculoma, Appendageal skin tumors (AST), Birt-Hogg-Dubé syndrome (BHDS)

Figure 1

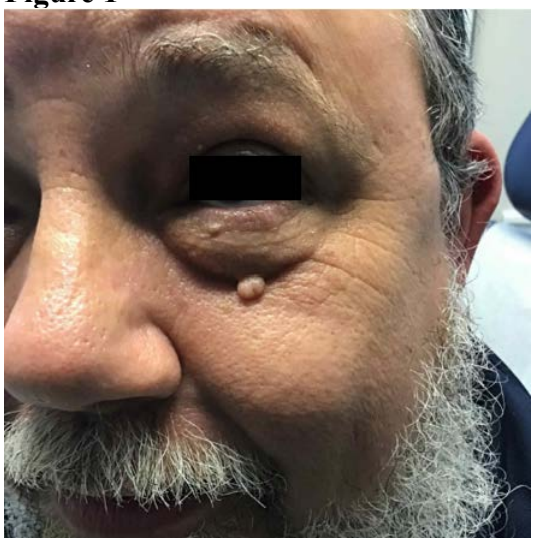


Figure 2A

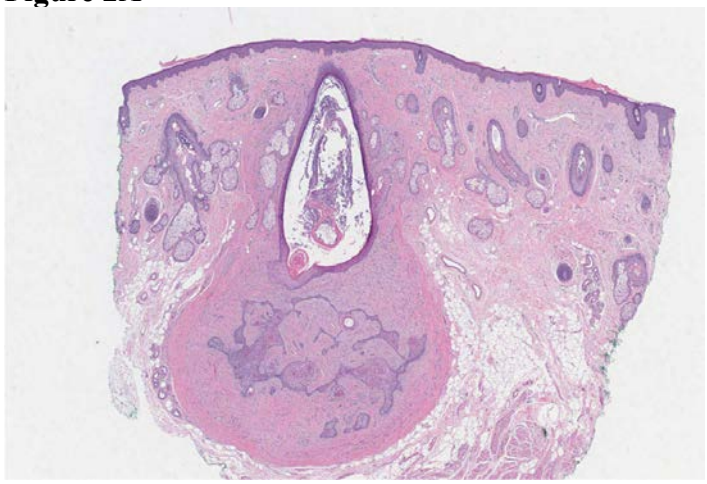
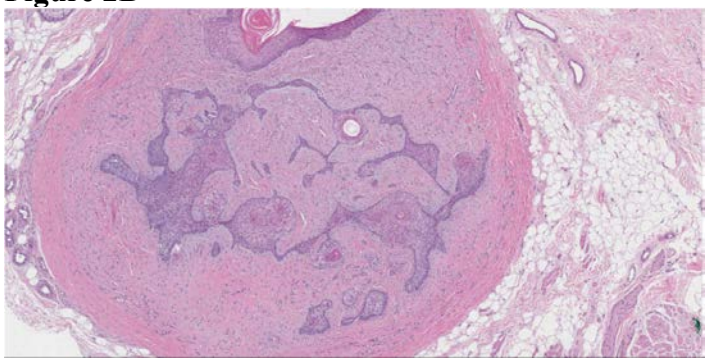


Figure 2B



PP-41 [Dermatology and Internal Medicine, including Skin Manifestations of Systemic Diseases]

Chronic myelofibrosis terminating in cutaneous plasmacytoma: a case report

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Chronic myelofibrosis (CMF) is characterized by progressive fibrosis and extramedullary hematopoiesis. In CMF, leukemic transformations are mostly myeloid origin; but can also be of erythroid and lymphoid origin. We report an extremely rare case of CMF terminating in plasma cell neoplasm in penis. Solitary extramedullary plasmacytoma mostly occur at the head and neck region, rarely on the skin. An eighty-one-year-old man diagnosed with CMF for seven years, presented with a penile lesion of 4 months evolution. Medical examination revealed an oval, erythematous, eroded plaque in the coronal sulcus of the penis. A biopsy exhibited neoplastic plasma cell infiltration that completely covers the superficial dermis. In immunophenotypic examination, CD388 and CD138 were positive, CD568 was negative; kappa chain was positive, and lambda chain was negative. Laboratory studies showed anemia (hb:8.9 g/dL), leukocytosis (WBC:14470/mm3). JAK2 gene mutation was detected. Other laboratory parameters, peripheral smear, urine analyses and serum protein electrophoresis were normal. Bone marrow examination revealed hypocellular marrow with grade 3-4 fibrosis. Skeletal survey and whole-body scans were unremarkable. Then, solitary extramedullary plasmacytoma diagnosis was confirmed. As far as we know, this is the first case in literature of SEP in the penis secondary to CMF. Early diagnosis and prompt treatment is crucial in SEP. Surgical excision, radiotherapy and chemotherapy are possible treatment modalities.

Keywords: Solitary extramedullary plasmacytoma,

chronic myelofibrosis, transformation

Solitary extramedullary plasmacytoma in penis

An oval, erythematous, eroded plaque in the coronal sulcus of the penis that has been present for 4 months

PP-42 [Nail Disorders/Diseases]

Longitudinal melanonychia of left hand thumb nail after contact dermatitis

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Melanonychia is pigmentation of the nail plate due to melanocyte activation or proliferation. Longitudinal melanonychia is the most common pattern. There are many etiologic factors depending on the number of nails involved and the dermoscopic features of the nail. These include trauma, infection, malignancy, pregnancy, dermatologic diseases, and medications.[2] One or more than one fingernails or toenails may be involved and may occur at any age. The history and clinical and dermoscopic features are instructive as to whether it is benign or malignant.[3]

Melanonychia may present as a longitudinal band, transverse band or total melanonychia involving the entire nail. Since melanonychia requires biopsy for definitive diagnosis and biopsy can be invasive and may lead to nail dystrophies, biopsy is not performed in all lesions. Clinical examination and dermoscopic findings help to make the correct diagnosis and reduce the number of unnecessary surgeries.[1]

Melanocytes are found in the matrix and nail bed. The majority of these melanocytes are inactive. When triggered by trauma, infection, inflammation, etc., melanocytes are activated, begin to synthesize melanin and these melanin-rich melanosomes are transferred along dendrites to matrix cells. These matrix cells move distally and appear as pigmentation in the nail bed. Melanocytes also proliferate to form lesions such as nevi, lentigo and malignant melanoma.[2]

One of the etiological causes that triggers melanonychia is contact dermatitis. Although it is known that contact dermatitis can cause onycholysis, subungual hyperkeratosis, pitting and beau lines in the nail, it can rarely cause melanonychia.

In this case, a 66-year-old female patient presented with the complaint of nail discoloration in the 1st nail plate of the left hand for 2 months. She was diagnosed as melanonychia induced by contact dermatitis on clinical and dermoscopic examination. In this case, we focused to emphasize that contact dermatitis on the hand may trigger melanonychia of the nail.

Keywords: contact dermatitis, melanonychia, nail pigmentation

Contact Dermatitis Nail Findings

Subungal hyperkeratosis (common)	Onycholysis (common)	Chronic paronychia	Beau lines	Pit-ting	Melanonychia (rarely)

PP-43 [Genetics]

A Case Of Xeroderma Pigmentosum Missdiagnosed As Efelid

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Xeroderma pigmentosum (XP) is a rare genodermatosis characterized by sensitivity to sunlight, inherited in an autosomal recessive manner. Mutations in the XP genes involved in DNA repair mechanisms lead to this condition. There are eight subtypes of XP that work to repair DNA damage. A definitive diagnosis is made by identifying mutations in these XP genes involved in DNA repair mechanisms. Depending on the subtype where the mutation occurs, progressive neurological abnormalities and ophthalmologic complications may accompany the clinical presentation. Failure to repair ultraviolet damage in DNA initially causes simple freckles, lentiginous hyperpigmented macules, or sunburn. Unrepaired progressive DNA damage accumulates, leading to widespread actinic damage and skin malignancies. There is no definitive treatment for this genodermatosis, so sun protection measures are crucial. Therefore, it is important for differential diagnoses to include and consider this condition in patients with widespread lentiginous hyperpigmentation. The case presented is a 38-year-old woman who presented to our clinic with complaints of widespread freckles and diffuse lentiginous hyperpigmentation. Detailed history revealed that she had undergone hyperpigmentation treatments multiple times and that her current symptoms were also present in her brother. Upon dermatological examination, our patient exhibited diffuse brown macules in the bilateral malar area and a plaque on the nasal dorsum consistent with actinic keratosis. Due to our differential diagnosis including Xeroderma Pigmentosum, genetic evaluation was requested from our patient and family members. We present this case to raise awareness, as our patient, initially seeking treatment for her freckles due to cosmetic concerns, was diagnosed with Xeroderma Pigmentosum.

Keywords: Xeroderma Pigmentosum, Sun sensitivity,Efelid, Malignancy

Xeroderma Pigmentosum

Our patient diagnosed with xeroderma pigmentosum and the widespread lentiginous hyperpigmentation and freckles on her brother's face

PP-44 [Inherited Skin Diseases]

Epidermolysis Bullosa without Pyloric Atresia with ITGB4 Mutation: A Case Report with Late Diagnosis

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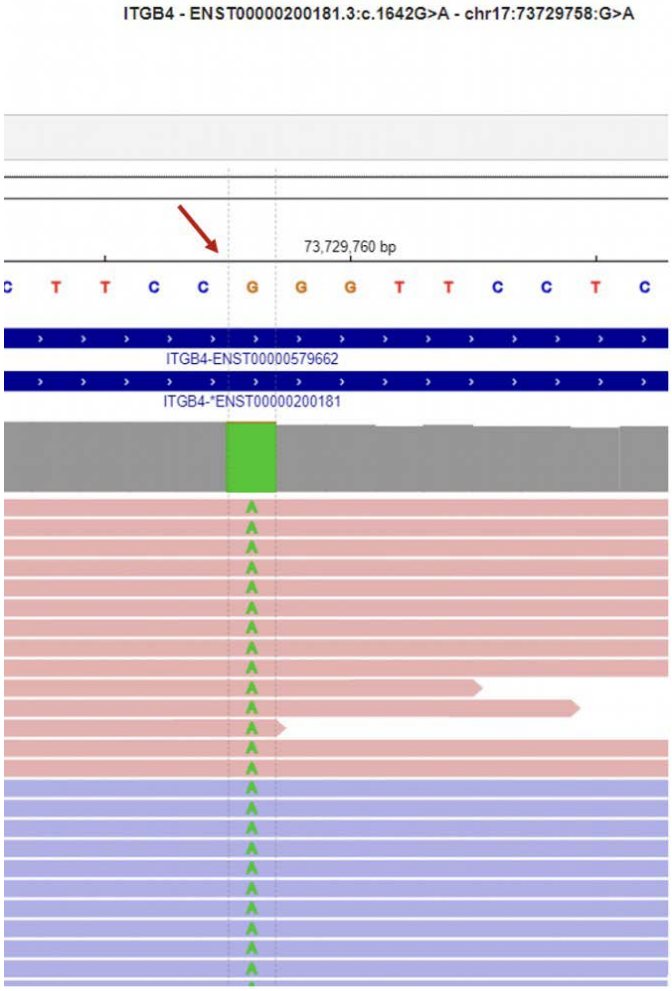
Junctional epidermolysis bullosa with pyloric atresia (JEB-PA) is a group of genetic mechanobullous disorders characterized by congenital PA and blistering caused by mutations in the ITGB4 or ITGA6 gene, which encodes integrin α6β4 expressed in hemidesmosomes. Additional manifestations include nail dystrophies, dental abnormalities, aplasia cutis congenita, cicatricial alopecia, hypotrichosis, ocular, oral, gastrointestinal and genitourinary involvement.

Pathogenic variants leading to the absence of integrin α6β4 are associated with early lethality, while missense or splicing mutations that allow expression of a residual protein lead to milder phenotypes. In addition, cases of JEB without pyloric atresia have also been described rarely in the literature A 53-year-old male patient was admitted to our polyclinic with the complaint of blistering and nail disorder since childhood. In his medical history, he had been admitted to many centers and received various treatments for bullous pemphigoid and onychomycosis. It was notable that the parents were cousins. Dermatologic examination revealed postinflammatory hyperpigmentation on the upper and lower extremities, eroded plaques with hemorrhagic crusts and 2 intact bullae on the left elbow. Nikolsky's sign was negative. Toenail dystrophy was present. Other system examinations were normal. Histopathologic examination revealed subepidermal separation and mononuclear inflammatory cell increase under the epithelium. Direct immunofluorescence examination was negative. The case was consulted to genetic diseases with a prediagnosis of epidermolysis bullosa. Genetic analysis showed that the ITGB4 gene is homozygous for a missense mutation in exon 13 that causes the amino acid glycine to change to the amino acid arginine (c.1642 G>A). As in our case, epidermolysis bullosa should be kept in mind in the differential diagnosis of bullous diseases even at a late age. In conclusion, we present a case of JEB without PA diagnosed late and we wanted to emphasize the rarity of EB cases without pyloric atresia with ITBG mutation in the literature and the importance of genetic analysis in genotype-phenotype correlation.

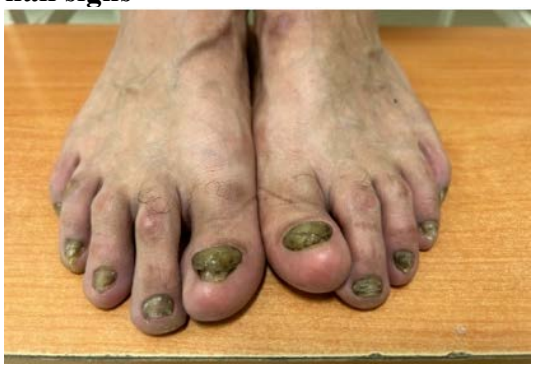
Keywords: ITGB4 Mutation, Epidermolysis Bullosa, late diagnosis

genetic analysis



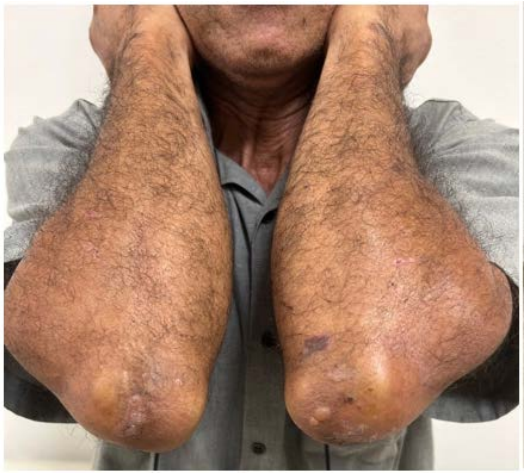
homozygous missense mutation in exon 13 that causes the amino acid glycine to change to the amino acid arginine (c.1642 G>A)

nail signs



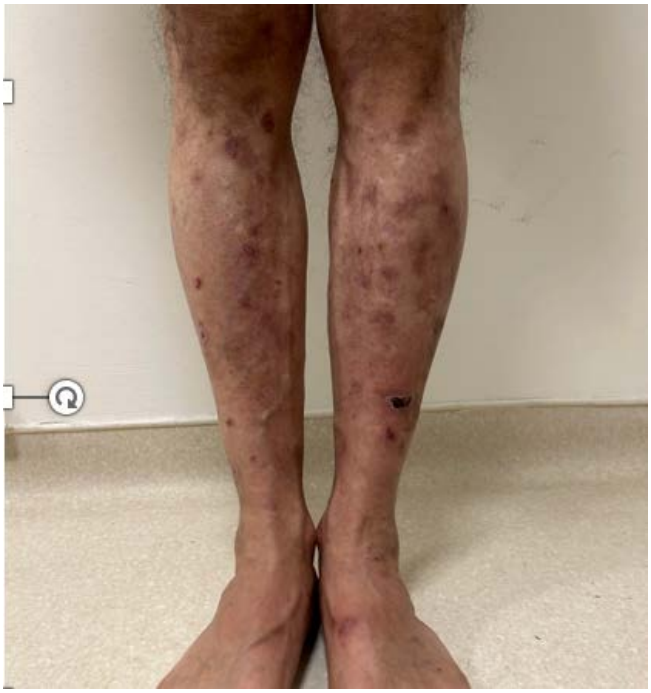
nail dystrophy, onychogryphosis

skin manifestations



crusted lesions and scarring on both elbows, 2 intact bullae on the left elbow

skin manifestations



crusted lesions and scarring on both lower extremities

PP-45 [Adverse Drug Reactions, TEN]

Panitumumab's acneiform eruption treated with Bactrim: Case report

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INTRODUCTION: Epidermal growth factor receptor (EGFR) inhibitors are used for the treatment of certain advanced or metastatic cancers, such as non-small cell lung cancer and gastrointestinal. EGFR inhibitors, such as panitumumab, are known to cause Acneiform eruptions as an adverse effect. Although not life-threatening, the Acneiform eruptions may prevent the patient from adhering to cancer therapy by causing cosmetical worry, pain, pruritus, and decreased quality of life. Considering this, we report the following case and its successful treatment.

MATERIAL-METHODS: A 53-year-old male patient presents with erythematous papules and pustules, with some hemorrhagic crusts, on the face, scalp, proximal arm, and inside the ears. (Figure 1) Light acneiform changes were observed on upper chest and axilla. The patient was in the oncology follow-up for rectal malignant neoplasm which is being treated with FLOFIRI (chemotherapy regimen) and panitumumab (EGFR inhibitor) from 5 days ago.

RESULTS: In our case, the clinical presentation along with the history were suggestive of an adverse reaction to panitumumab. The EGFR inhibitor- induced lesions are consistent with the described acneiform eruption in the literature: a folliculocentric, erythematous papule or pustule in areas rich in sebaceous glands such as the face, especially nose, cheeks, and nasolabial folds, and upper chest and neck. A skin biopsy is not routinely

performed nor needed for the diagnosis. Management according to grade of severity by the CTCAE scale was started with oral doxycycline and topical steroids. However, in 3 weeks follow-up, no improvement was noted. Furthermore, lesions of the chest and axilla increased. So, the treatment was stopped, and Bactrim (trimethoprim-sulfamethoxazole) was started. In the follow-up after 2 weeks, the patient's lesion was healed. (Figure 2) Treatment continuation with Bactrim was recommended.

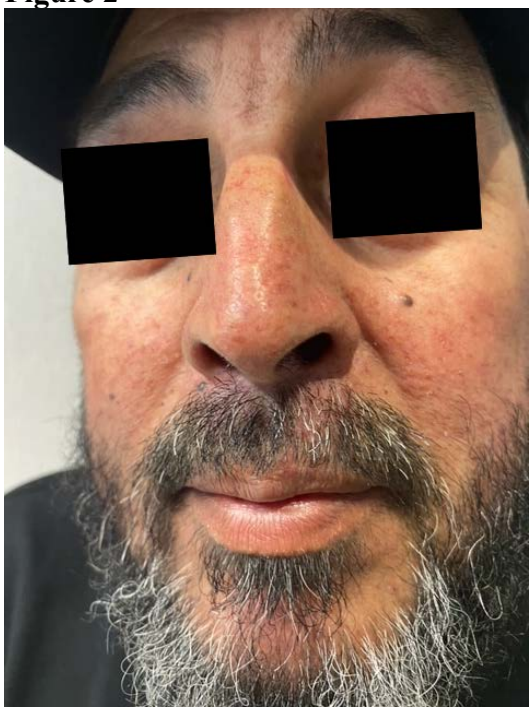
DISCUSSION: Grading helps predict and manage the patient accordingly. Further, starting from only topical steroids and topical antibiotics in Grade 1 to systemic steroids+ antibiotics and even interrupting the chemotherapeutic agent causing it in Grade 3. There are some controversies regarding prophylaxis and treatment drugs. The current core of management is oral tetracyclines, even recommended by some for prophylaxis. Our patient fits into the Grade 2 criteria, which is moderate papules or pustules of 10-30% of the body surface, which may or may not have symptoms or pain and pruritus. The treatment suggested was as first applied, oral tetracyclines and topical steroids. In unresponsive cases, some experts mentioned alternatives such as second generation cephalosporins or Bactrim. In our case where the standard therapy didn't yield results, we used Bactrim and resolution was rapidly successful in 2 weeks. Therefore, we propose Bactrim as a possible effective agent to manage similar cases of acneiform eruption induced by EGFR inhibitors such as panitumumab.

Keywords: Acneiform eruption, Case report, EGFR inhibitors, adverse reaction, Bactrim

Figure 1

The Acneiform eruption presentation on the face of our patient; Before treatment.

Figure 2



Healed lesion after successful treatment.

PP-46 [Paediatric Dermatology]

A rare case of cutaneous non-langerhans cell histiocytosis without systemic involvement in a two-year-old boy with histopathological and dermoscopical findings

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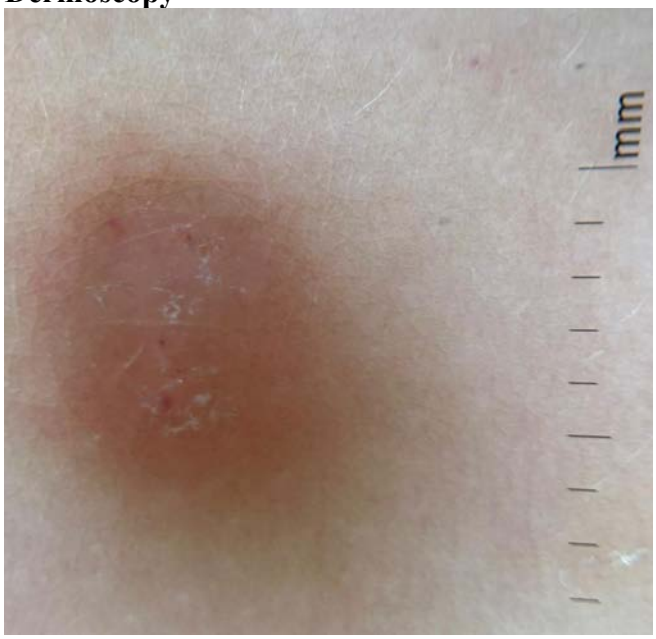
[2]Department of Pathology, Manisa Celal Bayar University, Manisa, Turkey

Histiocytic syndromes consist of a group of disorders that develop with the proliferation of monocyte/ macrophage. Histiocytosis is generally divided into two groups: Langerhans cell histiocytosis (LCH) and non- Langerhans cell histiocytosis(NLCH). NLCH is a rare and biologically benign disease. We report a clinically, dermoscopically and histologically proven NLCH patient without any systemic involvement. A two-year-old male patient was admitted to our clinic with complaints of itchy lesions in the back, arms, armpits and abdomen that had been going on for nine months. Medical examination revealed excoriated papules and nodules on the right shoulder, arm, back and abdomen. Dermoscopical examination revealed; orange-brown homogenous pigmentation. In histological sections, a diffuse infiltrate consisting of T lymphocyte and histiocyte-like langerin negative cells, concentrated around the dermal vessels and showing interstitial spread in the dermis. The patient was treated with medium potency topical corticosteroid and oral antihistamine. Since there was no systemic involvement and regression of the lesions, the patient was followed closely. In cases of systemic involvement, excision, chemotherapy or radiotherapy are potentional treatment modalities.

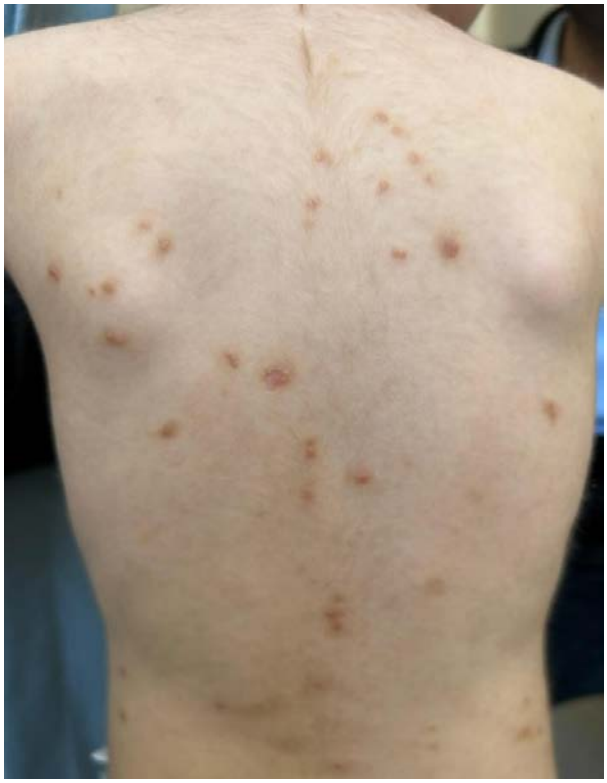
Keywords: Non-langerhans cell histiocytosis, cutaneous, dermoscopy

Dermoscopy



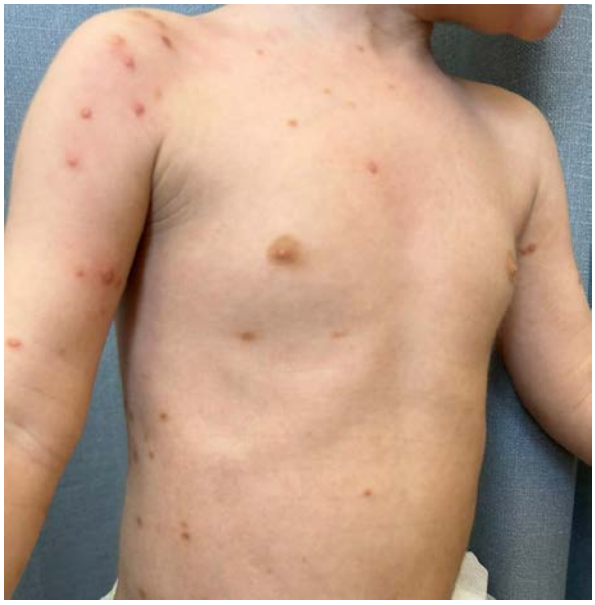
Orange-brown homogenous pigmentation

NLCH in back



Excoriated papules and nodules on the back

NLCH in shoulder and abdomen



Excoriated papules and nodules on the shoulder, arm and abdomen.

PP-47 [Dermatological Practice Management]

A case report: 27-year-old woman with pemphigus vegetans

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Introduction & Objectives: Pemphigus vegetans is a rare subtype of pemphigus vulgaris, which is seen in 1-2% of all pemphigus types. It is a chronic bullous disease that affects the intertriginous areas, scalp, and face and progresses to vegetative hypertrophic plaques with a pustular or bullous onset. There are Hallopeau and Neumann subtypes. The Hallopeau type starts with a slowly progressing pustular rash and forms vegetative plaques, the Neumann type is a more serious and treatment-resistant type with vesiculobullous eruption. The oral mucosa is usually involved. Pemphigus vegetans is caused by autoantibodies against desmoglein 3 and desmoglein 1 like pemphigus vulgaris also the treatment is similar. In this case, we present Hallopeau type pemphigus vegetans, which started with an acute vesicular and pustular eruption.

Materials & METHODS: A 27-year-old female patient was admitted to our clinic with a complaint of acute onset widespread eruption. On physical examination, she had pustules under the arms bilaterally and polymorphic vesicular and pustular eruptions on the anterior and lateral sides of the trunk, also had severe stomatitis. She could not speak Turkish so the vaccination history could not be obtained clearly and varicella infection was suspected. She had no known medical condition or new drug or substance use history. As the lesions progressed to bullous form, a 4 mm punch biopsy was taken from the lesion with the preliminary diagnosis of varicella, pemphigus vulgaris/vegetans, linear IGA pemphigus and acute generalized exanthematous pustulosis. Direct immunofluorescence and desmoglein 1&3 tests were requested.

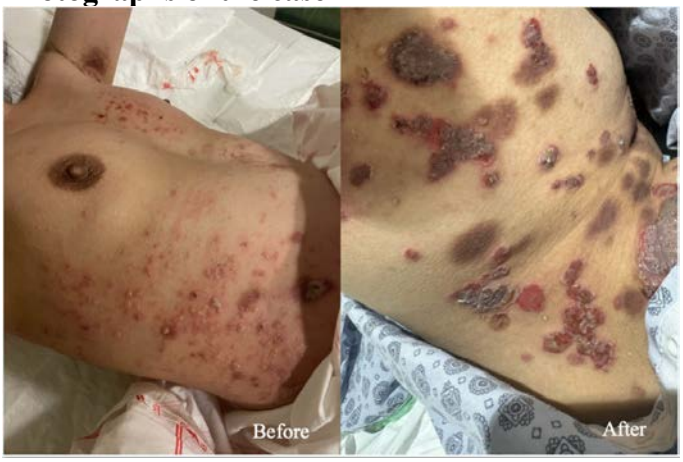
RESULTS: The results showed varicella PCR and Anti varicella IgM were negative and Anti varicella IgG was positive. Her desmoglein 1 and 3 values were 222 and 220, respectively. Biopsy results indicated superficial perivascular dermatitis with intraepidermal separation and increased eosinophils was compatible with pemphigus vulgaris/vegetans.

No signs of malignancy were found. 40 mg IV methylprednisolone and 100 mg azathioprine were started. Local wound care and secondary bacterial infection were treated with antiseptic solutions and topical antibiotics. Azathioprine treatment was observed to be insufficient and changed with 1 g of mycophenolate mofetil. Total regression of the lesions was observed in the 5th week. The patient has been followed up for 4 months and continues with mycophenolate mofetil 500 mg twice a day and 4 mg methylprednisolone as a maintenance treatment. There have been no new lesions on the oral mucosa or body.

CONCLUSION: Pemphigus vegetans is a rare form of pemphigus vulgaris and variable presentations of the disease make diagnosis difficult. It should not be forgotten that in patients with acute pustular eruptions especially with the involvement of the intertriginous areas, face and scalp, pemphigus vegetans should always be considered for differential diagnosis.

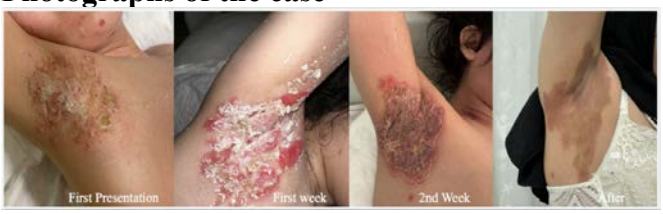
Keywords: Acute pustular eruptions, Pemphigus vegetans, The Hallopeau subtype, Pemphigus vulgaris, Autoimmune bullous dermatoses

Photographs of the case



Clinical representation of our patient

Photographs of the case



Clinical representation of our patient.

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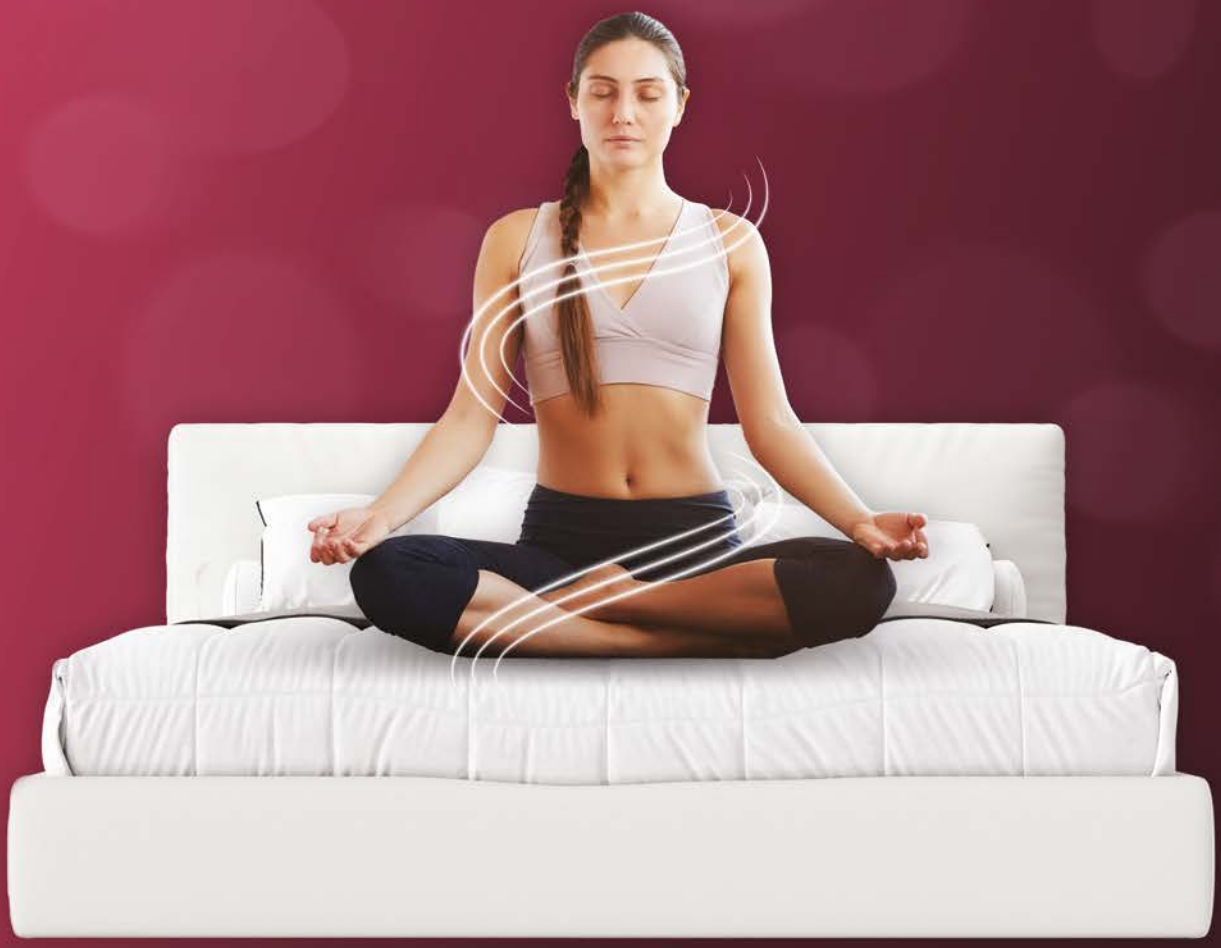

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