Abstract N°: 243

Efficacy, safety, tolerability and treatment durability of microneedling plus topical tranexamic acid in combination with topical modified Kligman lightening formula for melasma: A four-arm assessor and analyst blinded randomized controlled clinical trial

Dorian Maghsoodloo[1], Saba Baybordi Aghdam[2]

[1]Department of Dermatology, Rasool Akram Medical Complex Research Development Center (RCRDC), School of Medicine, Iran University of Medical Sciences, Tehran, Iran

[2]Development Center (RCRDC), School of Medicine, Iran University of Medical Sciences, Tehran, Iran

Introduction & Objectives:

The challenging management of melasma highlights the inadequacies of conventional therapies and their high risk of recurrence. Integrating microneedling for device-assisted drug delivery with tranexamicacid (TA), recognized for its melanin synthesis inhibition, presents a novel approach that warrants further investigation to fully assess its potential in enhancing melasma treatment efficacy.

Materials & Methods:

Fifty moderate to severe melasma patients participated in this randomized outcome-assessor-blinded controlled trial. Patients were randomly allocated into two main groups. Group A received a modified Kligman formula on one hemi-face on alternate nights for 2 months (A1) and three sessions of microneedling with 10% topical TA on the other hemi-face at 1-month intervals (A2). Group B used the same modi- fied Kligman formula on both sides of the face, with one side additionally receiving three sessions of microneedling with 4% TA (B1) and the opposite side with 10% TA (B2). Primary outcomes were % Modified Melasma Area and Severity Index (mMASI) and %v visual analogue scale (VAS) change during 6 month follow-up. Adverseevents including post-inflammatory hyperpigmentation (PIH) and treatment tolerability were recorded.

Results:

Compared to baseline, the mean mMASI reduction immediately after the finals sesion was higher in A1 ,B1, and B2 (56.84%, 50.88%, and 55.87%, respectively) than in A2, which saw only a 13.16% reduction. Efficacy notably declined after the cessation of treatment across all groups. While the efficacy within groups A1, B1, and B2 was comparable, microneedling with 4% or 10% TA combined with the topical modified Kligman formula proved more potent in patients at a lower risk of PIH. Overall, 22% of patients reported PIH, particularly in the A2 group (28% of hemi-faces), with its occurrence significantly associated with treatment during warmer seasons and in darker skin phototypes. Other adverse events were not observed in any patient. Patient satisfaction was highest in groups B1 and B2, where approximately 72% reported ‘excellent’ satisfaction. The lowest durability rate (16%) was observed in group A2, while the highest (72%) was seen in group B2, comparable with groups A1 and B1. Treatment tolerability was reported 100% in all groups.

Conclusion:

It was found that the modified Kligman formula outperformed microneedling-TA alone. However, with optimal patient selection, particularly targeting those at lower risk for PIH with lighter skin phototypes and scheduling treatments during less-sunny seasons, combining microneedling with 4% or 10% TA and the modified Kligman formula significantly enhanced efficacy and satisfaction rates compared to conventional topical treatment.

Abstract N°: 395

Comparative efficacy and safety of botanical extracts and hydroquinone for melasma: a systematic review

Ana Carolina Putini Vieira[1], Fernanda Cronemberger Lins[1], Amanda Castelo Branco Carvalho[1], Letícia Duarte Toresan[2], Rossana Cantanhede Farias de Vasconcelos[2]

[1]University of Santo Amaro, São Paulo, Brazil
[2]University of Santo Amaro, Dermatology, São Paulo, Brazil

Introduction & Objectives: Melasma is a chronic hyperpigmentation disorder primarily affecting the face, linked to sun exposure, hormonal factors, and contraceptive use. The recurrence of melasma and the side effects of hydroquinone, used in conventional treatment, make its management challenging, driving the search for new therapies. Botanical extracts are emerging as a less irritating and more accessible alternative to hydroquinone. This study aims to systematically compare different formulations to assess the efficacy and safety of botanical extracts compared to hydroquinone.

Materials & Methods: We searched PubMed, EMBASE, and Cochrane Library databases for randomized clinical trials (RCTs) comparing botanical extracts to hydroquinone for melasma treatment. Two authors applied eligibility criteria and extracted data following PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) and Cochrane recommendations. Non-RCTs and placebo-controlled studies were excluded.

Results: A total of seven studies met eligibility criteria, including 370 patients, of whom 199 used botanical extracts and 171 used hydroquinone to treat melasma. Several botanical extracts, Unani formulations, Phytolight 10%, parsley, liquiritin 2%, *Rumex occidentalis* 3% cream, and a combination of emblica, licorice, and belides 7%, showed efficacy and safety comparable to hydroquinone 2% and 4%. Notably, liquiritin 4% outperformed hydroquinone 4%, with 96.7% overall efficacy, 93.3% pigmentation reduction, and 83.3% improvement in melasma size, compared to 86.7%, 80%, and 76.7%, respectively, for hydroquinone. This is attributed to liquiritin's anti-inflammatory, UVB erythema-reducing, and melanosome-inhibiting properties. Quality of life, assessed using the MQOL (Melasma Quality of Life) and DLQI (Dermatology Life Quality Index), improved more significantly with botanical extracts. Unani Formulation 1 reduced MQOL scores by 23.1 points, compared to a 13.4-point reduction with hydroquinone. Similarly, Unani Formulation 2 showed a 0.52-point greater reduction in DLQI scores than hydroquinone, indicating a slight but meaningful improvement in quality of life. Phytolight 10% also outperformed hydroquinone 4%, reducing MASI (Melasma Area and Severity Index) scores by 3.1% more, likely due to its isoflavone content. Adverse effects were less severe with botanical extracts, with patients reporting mild side effects such as erythema, pruritus, burning, acne, atopic dermatitis, and mild scaling. Hydroquinone was associated with more significant adverse effects.**

Conclusion: Botanical extracts, like liquiritin 4% and Unani formulations, are promising alternatives to hydroquinone for melasma, offering similar or better efficacy, improved safety, and quality of life. Their anti-inflammatory, antioxidant, and melanin-inhibiting properties make them less irritating and more accessible. Further research and regulation are needed to confirm their long-term benefits.**

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 418

Efficacy and Safety of Combination Therapy with Intense Pulsed Light and 1927-nm Non-Ablative Fractional Laser for Melasma in Japanese Patients: A Retrospective Study

Tomoko Kobayashi[1]

[1]Kobatomo Dermatology Clinic, Nagoya, Japan

Introduction & Objectives:

Melasma is a chronic pigmentary disorder characterized by irregular hyperpigmented patches, typically on the face, and is particularly common in Asian women. Its management is notoriously challenging due to frequent recurrences and high rates of post-inflammatory hyperpigmentation (PIH), particularly in skin of color. While intense pulsed light (IPL) has been widely used in Asian populations, the 1927 nm non-ablative fractional thulium laser - a device known to target the dermo-epidermal junction with minimal downtime - has recently emerged as a promising tool in melasma therapy. However, few studies have investigated its use in combination with IPL in Japanese patients. This study retrospectively evaluated the clinical efficacy and safety of the combination of IPL and 1927 nm laser in Japanese patients with melasma.

Materials & Methods:

Twenty Japanese patients with a clinical diagnosis of melasma underwent 1 to single sessions of combined IPL followed by 1927 nm fractional laser (mJouleTM platform; Sciton, Inc., Palo Alto, California). IPL parameters were individually adjusted according to skin phototype, while the 1927-nm laser was delivered at low fluence and moderate density to minimise the risk of PIH. The Melasma Area and Severity Index (MASI) and objective spectrophotometric imaging (Antera 3D) were used to assess treatment response. Adverse events and patient satisfaction were also recorded.

Results:

The mean MASI score decreased from 6.10 ± 2.61 to 3.46 ± 1.86 four weeks after laser treatment ($p<0.01$), and 8 out of 20 subjects were able to reduce the MASI score by more than 50%. Objective spectrophotometric imaging showed that the mean reduction in average hyperpigmentation was 4.97±2.23%. Mild and transient post-inflammatory hyperpigmentation developed in two patients after a single session and in two patients after a second session, all of whom recovered with adjunctive topical therapy.

Conclusion:

This retrospective study suggests that the combination of IPL and 1927 nm fractional thulium laser is a safe and effective option for the treatment of melasma in Japanese patients. The 1927nm wavelength appears to be particularly suited to the epidermal pigmentation seen in Asian skin, with a lower risk of PIH than conventional lasers. While the short-term results are encouraging, future prospective controlled studies with longer follow-up are needed to assess long-term durability, recurrence rates and optimal treatment.

Abstract N°: 449

Assessing effectiveness of adding niosomal atorvastatin 1% ointment to topical calcineurin inhibitor treatment in non-segmantal vitiligo

Hamed Zartab[1, 2, 2, 2, 2, 2, 2, 2, 2, 2] , Dorian Maghsoodloo[2], Mahin Aflatoonian[3], Simin Shamsi-Meymandi[4], Rezvan Amiri[3]

[1]Center for Research & Training in Skin Diseases & Leprosy, Tehran University of Medical Sciences, Tehran, Iran, Tehran

[2]Center for Research & Training in Skin Diseases & Leprosy, Tehran University of Medical Sciences, Tehran, Iran, Tehran, Iran

[3]Afzalipour Hospital, Kerman University of Medical Sciences, Kerman, Iran

[4]Pathology and Stem Cells Research Center, Afzalipour School of Medicine, Kerman University of Medical Sciences, Kerman, Iran

Introduction & Objectives:

Vitiligo is a chronic dermatosis with an incidence rate of 0.5–1%. Vitiligo can have detrimental effects of health-related quality of life (QoL). Aetiologic factors include genetics, autoimmunity, and biochemical, neurochemical, and environmental factors. Autoimmunity is accepted as the most probable pathophysiologic mechanism. Although there are various therapeutic methods for vitiligo, treatment is still a big challenge for dermatologists. There are increasing evidences about their anti-inflammatory and immunomodulatory roles. There are reports on their effectiveness in inflammatory or neoplastic disorders such as melanoma, acne vulgaris, psoriasis, and seborrheic dermatitis. The efficacy of statins in the treatment of vitiligo is controversial. We studied possible therapeutic effect of topical 1% niosomal atorvastatin ointment combined with topical 0.1% tacrolimus in treatment of non-segmental vitiligo.

Materials & Methods:

This is a triple blind, pilot, randomized placebo-controlled trial (RCT) that was performed in dermatology clinic. All the 20 patients used topical 0.1% tacrolimus cream twice daily (BD). Moreover, the intervention group participants used topical 1% niosomal atorvastatin ointment, and control group participants were prescribed placebo ointment, BD. Patients were evaluated using vitiligo area surface index (VASI) score and patients' satisfaction at baseline and after 3 months treatment.

Results:

The mean patient satisfaction in the intervention and control groups were 5 ± 1.4 and 3.5 ± 1.9; the difference between groups was not statistically significant ($p = 0.9$). We found statistically significant difference in VASI score before and after treatment in both intervention and control groups ($p = 0.01$ and $p = 0.03$, respectively). However, comparison of the VASI score between groups was not statistically significant ($p = 0.62$). We also found no significant correlation between VASI score and other variables.

Conclusion:

The result of this study indicates that adding of niosomal atorvastatin 1% ointment to topical calcineurin inhibitor has no additional effect on non-segmental type of vitiligo. Further large studies with different combinations are recommended before any conclusive result can be concluded on efficacy of statins in vitiligo.

Abstract N°: 536

To study the prevalence of Anti-Thyroid Peroxidase (TPO) antibodies and C-Reactive protein (c-RP) serum levels in patients with late onset vitiligo

Yashdeep Pathania*[1]

[1]All India Institute of Medical Sciences, Rajkot (AIIMS Rajkot), DERMATOLOGY, VENEREOLOGY & LEPROLOGY, Rajkot, India

Introduction & Objectives:

Background:

There has been paucity of data and literature on the late onset vitiligo. There are only few studies in the literature demonstrating epidemiology, clinical pattern and other autoimmune disease association with late onset vitiligo.

Objective:

To study the prevalence of Anti-Thyroid Peroxidase (TPO) antibodies and C-Reactive protein (c-RP) serum levels in patients with late onset vitiligo.

Materials & Methods:

In this cross-sectional study of 50 patients, 30 years of age and above with new onset of depigmented macules or patches over body were interviewed and examined. Patient's sera were evaluated for Anti-Thyroid Peroxidase antibodies and C-Reactive protein levels. Patients were also evaluated clinically to find the clinical pattern of vitiligo and disease activity using VIDA (Vitiligo disease activity index) scoring scale). Late onset vitiligo patients were also evaluated for the psychosocial impact of the disease by using Dermatology Life Quality Index (DLQI) questionnaire in patient's language.

Results:

Out of 50 patients of late onset vitiligo 30 were females and 20 were males. The mean age of patients was 49.16 ± 11.762. The vitiligo lesions were generalised in 62% patients while distribution to hands & feet and acrofacial were 9% and 7% respectively. The prevalence of anti-TPO antibody and c-Reactive protein above the normal range were found in 22% and 8% patients respectively. The mean DLQI was 12.88 ± 4.822. The mean VIDA score was 2.78± 1.298. The c-RP levels had a positive corelation with VIDA score (p= 0.030). The female patients had a higher mean and positive corelation with DLQI (p=0.008). There was a positive corelation found between the raised anti-TPO levels and VIDA score (p=0.00). It was also found that patients of age group between 30-40 years had a significant higher DLQI than older age group.

Conclusion:

Late onset vitiligo patients showed a significant relationship with raised anti-TPO antibody levels and few with raised c-RP levels. Anti-TPO levels had a positive corelation with the VIDA score. The majority of patients had a generalised type of vitiligo predominantly involving the hands and feet and also had a significant large psychosocial impact of the disease.

EADV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 787

Clinical profile of male melasma and association of its severity with serum testosterone

Upama Paudel[1], Sudip Parajuli[1]

[1]Institute of Medicine, Tribhuvan University, Department of Dermatology and Venereology, Kathmandu, Nepal

Introduction & Objectives:

Melasma is a common skin condition presenting with symmetric brown pigmentation on sun exposed areas, especially face. Although melasma can be seen in all races and both genders, it is common in women of childbearing age and dark-skinned individuals. Melasma is a multifactorial disorder associated with genetic, hormonal and environmental factors. Most of the studies in melasma have been focussed on females as females always outnumber males in melasma. Literatures on clinical characteristics of male melasma are sparse. There are few studies in male melasma which shows its association with lower level of serum testosterone. This study aimed to describe clinical characteristics of male melasma and correlate its severity with duration of sun exposure and serum testosterone levels.

Materials & Methods:

This was a descriptive study conducted at the dermatology outpatient department of ……from 1st August 2024 through 31st January 2025. The study variables included age, skin type, clinical type of melasma, family history, duration of sun exposure, modified melasma area severity index (mMASI) score, and serum testosterone level. The association of melasma severity and duration of sun exposure was evaluated by Chi square test and the correlation of melasma severity and serum testosterone level by Pearson correlation coefficient.

Results:

A total of 42 males with melasma were enrolled in the study. The age of the cases ranged from 20 years to 57 years, with a mean age of 32.7±7.5 years. Maximum number of cases belonged to the age group of 26-35 years (n=19, 45.2%). Majority of cases had Fitzpatrick's skin type IV. Malar pattern of melasma was predominant followed by centro-facial and mixed. On Wood's light examination, epidermal melasma outnumbered mixed type, none had pure dermal melasma. Family history of melasma was present in only 6 (14.3%) cases. Average time of sun exposure ranged from 30 minutes to 8 hours, with a mean of 2.34±1.6. Modified MASI score ranged from 2.40 to 14.90 with a mean of 6.51±2.97. The association between duration of sun exposure and melasma severity was not statistically significant (p value 0.158). The serum testosterone level was lower than the reference range in 14(33.3%) cases and within the normal range in 28(66.7%) cases. The relationship between the serum testosterone level and mMASI was weakly negative but not statistically significant (r=-0.112, p=0.478)

Conclusion:

Male melasma was common in Fitzpatrick's skin type IV, malar pattern being predominant. Melasma severity was not associated with increased duration of sun exposure. Male melasma was associated with low serum testosterone level in 33.3% of cases but the association of low serum testosterone with severity of melasma was not statistically significant.

Abstract N°: 793

The effectiveness and safety of Oral N-acetylcysteine in combination with Narrow-Band Ultraviolet B (NB-UVB) Phototherapy compared with NB-UVB Phototherapy alone in the treatment of Vitiligo: A Pilot study

Abbas Dehghani*[1], Afsaneh Sadeghzadeh-Bazargan[1], Saeideh Farahani[1], Azadeh Goodarzi[1]

[1]Iran University of Medical Sciences, Dermatology, Tehran, Iran

The effectiveness and safety of Oral N-acetylcysteine in combination with Narrow-Band Ultraviolet B (NB-UVB) Phototherapy compared with NB-UVB Phototherapy alone in the treatment of Vitiligo: A Pilot study

Introduction & Objectives: Vitiligo is a skin condition characterized by the loss of pigmentation caused by the destruction of melanocytes, which can have significant psychological effects. Numerous studies have been conducted to identify the most effective treatment for this condition. The objective of this study is to evaluate the efficacy and safety of oral N-acetylcysteine (NAC) in combination with narrow-band UVB (NB-UVB) phototherapy, comparing it to NB-UVB therapy alone in treating patients with vitiligo.

Materials & Methods: This research was a single-blind, randomized controlled Phase 1 trial conducted over a period of 4 months, involving 16 participants. The patients were split into two groups of 8, with one group receiving 600 mg of oral NAC twice daily, alongside NB-UVB phototherapy three times per week, while the other group received only the NB-UVB phototherapy as a control. The patients were reassessed after 2 and 4 months, with evaluations based on the Vitiligo Extent Tensity Index (VETI), overall patient satisfaction, treatment tolerability, and side effects.

Results: Among the 16 patients, 68.8% were male, with an average age of 40.7 ± 9.9 years. Both treatment groups showed a significant reduction in VETI scores during the second and third assessments ($P < 0.05$). However, the difference between the two groups was not statistically significant ($P > 0.05$). Patient satisfaction was notably higher in the NAC+NB-UVB group during the second visit ($P = 0.01$), and by the third visit, 75% of patients in the NAC+NB-UVB group reported excellent satisfaction, compared to 25% in the control group ($P = 0.07$). Treatment tolerability was similar across both groups, though one patient in the NAC+NB-UVB group experienced dizziness, which was resolved after adjusting the dose.

Conclusion: Oral NAC can be used as a safe supportive therapy in the treatment of generalized vitiligo patients in combination with NB-UVB phototherapy.

Abstract N°: 850

A cross-sectional study of clinical, dermoscopical and histopathological correlation in pigmented purpuric dermatosis

krishna debbarman*[1], Vaishnavi Modi[2]

[1]Maulana Azad Medical College, Dermatology &VD, New Delhi, India
[2]Maulana Azad Medical College, New Delhi, India

Introduction & Objectives:

Pigmented purpuric dermatoses (PPD) are a group of benign, chronic skin conditions characterized by hyperpigmented, yellowish-brown macules with petechiae. The exact etiology remains unclear, though factors like venous insufficiency, systemic illness, and drug exposure have been implicated. Histopathologically, PPD exhibits features such as endothelial cell swelling, hemosiderin deposition, and perivascular lymphocytic infiltrates. Dermoscopy, a non-invasive diagnostic tool, has emerged as a promising method for distinguishing PPD subtypes and ruling out close differentials.

Materials & Methods:

A cross-sectional study was conducted in the Department of Dermatology and Pathology at Maulana Azad Medical College, New Delhi. A total of 40 clinically diagnosed PPD patients were included. Clinical and epidemiological data were collected, followed by dermoscopic examination and histopathological analysis with Perl's staining. Statistical analysis was performed to evaluate the correlation between dermoscopic and histopathologic findings.

Results:

The mean age of participants was 40.7 years, with a male-to-female ratio of 2.07:1. Schamberg's disease was the most prevalent subtype (92.5%), followed by lichen aureus (2.5%) and pigmented purpuric lichenoid dermatosis (5%). Coppery-red background pigmentation was present in all cases, with brown dots (92.5%) and red dots (90%) being the most common dermoscopic findings. Histopathological analysis revealed a predominant perivascular reaction pattern (70%), followed by spongiotic (15%), interface (7.5%), and lichenoid (7.5%) patterns. Perl's staining was positive in 95% of cases, indicating a correlation between hemosiderin deposition and disease chronicity. No statistically significant association was found between dermoscopic features and histological subtypes.

Conclusion:

This study provides insights into the clinico-histopathological and dermoscopic correlations in PPD. While dermoscopy is a valuable adjunct to clinical diagnosis, histopathology remains crucial for confirmation. Further research with larger sample sizes and blinded assessments is warranted to refine the diagnostic approach.

Abstract N°: 1034

Q-Switched Nd:YAG Laser as a Therapeutic Modality for Basal Cell Carcinoma in Surgery-Averse Patients

David Pudukadan[1, 2]

[1]Pudukadan's Derma Laser Center, Dermatology, Thrissur, India
[2]Jubilee Mission Medical College and Research Institute, Dermatology, Thrissur, India

Introduction & Objectives:

Basal cell carcinoma (BCC) is the most common form of skin cancer, often requiring intervention based on lesion type, location, and patient preference. While surgical excision remains the gold standard, certain patient populations may benefit from non-invasive modalities.

To evaluate the clinical efficacy and cosmetic outcomes of Q-switched Nd:YAG laser in the treatment of histologically confirmed BCC in patients who opted against surgery.

Materials & Methods:

Three patients with biopsy-proven BCC lesions (one nodular, two superficial) were treated using a Q-switched Nd:YAG laser (1064 nm). Laser fluence and spot size were adjusted according to lesion characteristics, with one to two treatment sessions administered. All patients underwent standard clinical evaluation and histopathological confirmation prior to treatment, and were followed for up to six months post-intervention.

Results:

All patients demonstrated complete clinical resolution of lesions within three to six months. Post-procedural effects were limited to transient erythema and mild crusting, resolving within one week in all cases. No recurrences were observed during the follow-up period. Patients reported high levels of satisfaction with both treatment tolerability and cosmetic outcome.

Conclusion:

The Q-switched Nd:YAG laser may offer a promising non-surgical alternative for select patients with BCC, particularly those with contraindications to surgery or lesions in cosmetically sensitive areas. Further controlled studies are warranted to validate these preliminary findings.

Abstract N°: 1107

Hypopigmented lesions in pityriasis lichenoides chronica patients: Are they only post-inflammatory hypopigmentation?

Maha Fathy Elmasry*[1], Amira Elbendary[2], Randa Youssef[2], Mona R E Abdel-Halim[2], Dalia Abdel Halim[2], Dina Ahmed El Sharkawy[2]

[1]Faculty of Medicine, Cairo University, Dermatology, Cairo, Egypt
[2]Faculty of Medicine, Cairo University, Cairo, Egypt

Introduction & Objectives: Pityriasis lichenoides chronica (PLC) lesions are reported to subside with post-inflammatory hypopigmentation (PIH); hence, the most widely perceived nature of hypopigmented macules in PLC is PIH. However, to the best of our knowledge, no studies describing histopathological findings in these lesions are reported in literature.

The aim of this study is to evaluate the hypopigmented lesions encountered in PLC patients and to shed light on their histopathological features.

Materials & Methods: A cross-sectional observational study included twenty-one patients with PLC recruited in a period of twelve months. Clinical characteristics of each patient were collected. A skin biopsy from hypopigmented lesions whenever present was taken and assessed with routine haematoxylin and eosin stain.

Results: Seventeen patients (81%) were less than 13 years old. Most patients (85.7%) demonstrated diffuse distribution of lesions. Hypopigmented lesions were present on the face in 12 (57.14%) patients. Histopathologically, hypopigmented lesions showed features of post-inflammatory hypopigmentation in 19% of patients, residual PLC in 52.4% and active

PLC 28.6% of patients.

Conclusion: Hypopigmented lesions in PLC were noted mainly in younger ages, histopathologically they may show features of active or residual disease, beyond post-inflammatory hypopigmentation. Consequently active treatment for patients presenting predominantly with hypopigmented lesions could be required to control the disease.

Abstract N°: 1356

Vitiligo-like leucoderma following cyclin-dependent kinase 4 and 6 inhibitor treatment: systematic review of the literature

Maya Engler Markowitz[1, 2], jen barak levitt[3], Rotem Merose[2, 4], Elena Didkovski[2, 5], Igor Snast[1, 2], Meital Oren-Shabtai[1, 2], Aviv Barzilai[2, 6], Daniel Mimouni[1, 2], Shany Sherman[1, 2]

[1]Rabin Medical Center – Beilinson Hospital, Division of Dermatology, Petach Tikva, Israel
[2]Tel Aviv University, Faculty of Medicine, Tel Aviv, Israel
[3]Emek Medical Center, Department of Dermatology, Afula, Israel
[4]Shamir Medical Center, Oncology Institute, Be'er Ya'akov, Israel
[5]Rabin Medical Center – Beilinson Hospital, Department of Pathology and Cytology, Petach Tikva, Israel
[6]Sheba Medical Center, Department of Dermatology, Institute of Pathology, Tel Hashomer, Israel

Introduction & Objectives: Vitiligo-like leucoderma is being increasingly reported in patients with breast cancer treated with cyclin-dependent kinase 4 and 6 (CDK4/6) inhibitors. We aim to systematically review the characteristics of CDK4/6 inhibitor-induced vitiligo-like leucoderma.

Materials & Methods: A comprehensive literature search was conducted to identify published cases of patients with vitiligo-like leucoderma following CDK4/6 inhibitor therapy administered for advanced breast cancer. The cases of three additional patients from our tertiary vitiligo clinic are also reported.

Results: Thirteen publications met the inclusion criteria, with a study population of 62 patients, including the 3 newly reported patients attending our vitiligo clinic. All patients were female; median age was 61 years (range 39 to 87 years). Ribociclib was the CDK4/6 inhibitor most frequently associated with vitiligo-like leucoderma, in 76% of patients (47/62). The condition predominantly affected sun-exposed areas (88%, 36/41) and caused symptoms such as intense pruritus in 59% of patients (24/41). Despite multiple treatment methods, 56% of the patients (34/61) showed no repigmentation. CDK4/6 inhibitor therapy was discontinued in 13 of 62 patients (21%) for various reasons, including vitiligo-like leucoderma; however, cessation did not improve the outcome. Most studies lacked data on progression-free survival.

Conclusion: CDK4/6-inhibitor-induced vitiligo-like leucoderma has distinct clinical characteristics compared with classic vitiligo and is mostly recalcitrant to treatment. Stopping CDK4/6 inhibitors does not alleviate or improve the condition. Further research is essential to elucidate its prognostic significance

Abstract N°: 1416

Concordance between Wood's lamp and dermoscopy in the classification of melasma

Houda Talbi[1], Yousef Almheirat[1], Nassiba Zerrouki[1, 2], Nada Zizi[1, 2]

[1]Mohammed VI University Hospital, Oujda, Morocco, Department of Dermatology, Venereology, and Allergology, Oujda
[2]Faculty of Medicine and Pharmacy, Mohammed First University, Oujda, Morocco, Laboratory of Epidemiology, Clinical Research, and Public Health, Oujda

Introduction & Objectives:

Melasma is an acquired hypermelanosis, commonly seen in women, characterized by hyperpigmented macules and plaques on the photo-exposed areas of the face. Its psychosocial impact is notable. The classification of melasma relies on evaluating the depth of the pigment through clinical examination, Wood's light, and dermoscopy. Wood's light highlights the pigment's location through fluorescence, while dermoscopy allows for a detailed analysis of its distribution and depth. This study aims to assess the concordance between these two diagnostic techniques.

Materials & Methods:

A prospective descriptive and analytical study was conducted on all cases of melasma that consulted our department between January and February 2025. Melasma was classified into centrofacial, malar, and mandibular forms, and then assessed using Wood's light (DermLite Lumio UV) and dermoscopy (DermLite DL3 and DermLite DL4) for classification into epidermal, mixed, or dermal melasma based on pigment depth. Statistical analysis, performed with IBM SPSS 21.0, utilized the Chi^2 or Fisher's exact test for qualitative variables, the Student's t-test for quantitative variables, and Cohen's kappa coefficient to measure the agreement between the two methods. A p-value < 0.05 was considered statistically significant.

Results:

Our study included 19 patients, 15 women and 4 men (sex ratio M/F = 0.27), with a mean age of 38.84 ± 7.39 years. A low socio-economic level was observed in 63.15% of patients. The main risk factors identified included prolonged sun exposure (73.68%), with only 26.31% using sun protection. Hormonal contraception was reported by 47.36% of female patients, and 52.63% reported the onset or worsening of melasma during pregnancy. Two of our female patients had endocrinopathies. A positive family history was present in 47.36% of patients. Phototype IV predominated (89.47%), and the centrofacial pattern was the most common (52.63%), followed by the malar pattern (47.36%). The MASI score was predominantly mild (63.15%). Assessment with Wood's light classified melasma as epidermal in 73.68% of cases, mixed in 15.78%, and dermal in 10.52%. Dermoscopy identified these forms in 57.89%, 31.57%, and 10.52%, respectively. The level of agreement between the two methods was evaluated using Cohen's kappa coefficient, which was 0.486, indicating moderate agreement between Wood's light and dermoscopy in the classification of melasma, with a p-value of 0.003 (< 0.05 = statistically significant agreement).

Conclusion:

Our study showed a moderate concordance between Wood's lamp and dermoscopy in the classification of melasma, with a kappa coefficient of 0.486, indicating statistically significant agreement ($P = 0.003$). Although both methods were generally concordant, dermoscopy proved to be more accurate in identifying the deeper

pigment component, particularly in mixed and dermal forms. These findings align with those of other studies, which have observed moderate to substantial concordance between the two techniques, with notable discordances in some forms of melasma, especially with epidermal lesions being reclassified as mixed or dermal. Thus, dermoscopy appears to be more reliable for evaluating darker phototypes and helps in identifying the mixed pattern of melasma. Overall, these results highlight the value of dermoscopy as a complementary tool to Wood's lamp, enabling a more objective evaluation of pigment depth and facilitating therapeutic management of melasma.

Abstract N°: 1629

Meaningful Vitiligo Area Scoring Index (VASI) Response Thresholds Based on Qualitative Interviews With Adolescents

Khaled Ezzedine*[1, 2], Ahmed M Soliman[3], Dana DiBenedetti[4], Amy Greenblatt[4], Ellie H Julian[3], Stavonnie Patterson[3], David Rosmarin[5]

[1]Department of Dermatology, Henri Mondor Hospital, Créteil, France
[2]Department of Dermatology, Multicultural Dermatology Center, Henry Ford Health, Detroit, United States
[3]AbbVie Inc., Mettawa, United States
[4]RTI Health Solutions, Durham, United States
[5]Department of Dermatology, Indiana University School of Medicine, Indianapolis, United States

Introduction & Objectives: Non-segmental vitiligo (NSV) is a chronic, progressive disorder causing bilateral skin depigmentation. Individuals with NSV can experience psychosocial burdens and significant quality of life impacts. Treatments for repigmentation in NSV are evaluated using clinical outcome assessments such as the Total Vitiligo Area Scoring Index (T-VASI) and Facial Vitiligo Area Scoring Index (F-VASI). However, evaluating individual perspectives of meaningful change is necessary to validate these instruments for use in clinical trials and to support the value of treatment effectiveness to patients. Importantly, the amount of repigmentation considered meaningful on the VASI measures has not been explored specifically for adolescents. Therefore, this study aimed to evaluate meaningful change thresholds and assess content validity of the T-VASI and F-VASI for adolescents.

Materials & Methods: Two rounds of web-based, qualitative interviews were conducted with adolescent participants aged 12 to ≤17 years with a caregiver-reported clinician diagnosis of NSV who resided in the United States, understood English, and had caregiver permission to participate. All interviews were audio recorded, transcribed verbatim, deidentified, coded, and qualitatively analyzed. To guide meaningful change discussions on the VASI, images depicting varying depigmentation levels ranging from 100% (complete depigmentation) to 10% were shown. Separately for both facial and body vitiligo, participants were asked what they perceived as their current depigmentation level (100%-0%), followed by what level they would consider a meaningful change in repigmentation. The difference between responses indicated the percentage change in repigmentation considered meaningful. Results were reported descriptively.

Results: A total of 13 adolescents with NSV were interviewed. The mean (standard deviation) age was 14.8 years (1.7); 46.2% were female (n = 6), and 38.5% were White (n = 5). Eight (61.5%) adolescents were Fitzpatrick skin type I–III, and 5 (38.5%) were skin type IV–VI. Participants noted that the amount of their face/bod*y* that was affected by vitiligo (n = 13, 100%) and level of depigmentation (n = 11, 84.6%) were important in measuring vitiligo severity, confirming the relevance and importance of the VASI concepts. Among those with facial vitiligo (n = 8), there was considerable variation in both the reported amount of surface area affected by vitiligo (5%-100%) and amount of depigmentation within the affected areas (32.5%-100%). On average, a 62% improvement (range, 29%-90%) in facial repigmentation was considered meaningful. Among those with vitiligo on their body (n = 12), there was similar variability in the reported amount of affected surface area (0%-92.5%) and amount of depigmentation (25%-100%). On average, a 55% improvement (range, 10%-89%) in body repigmentation was considered meaningful.

Conclusion: The meaningful amount of repigmentation among adolescents with NSV (62% for facial vitiligo, 55% for body vitiligo, excluding the face) is generally in line with commonly used endpoints in clinical trials such as the T-VASI 50 (50% improvement on the body) and F-VASI 75 (75% improvement on the face) and provides evidence

in support of these VASI thresholds as clinical trial endpoints.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 1700

Successful Repigmentation of Vitiligo-associated-leukotrichia after Autologous Cell Harvesting Treatment on Hairy Areas

Guojing Chang*[1], Wenchao Zhang[1], Fei Long[1], Mingzi Zhang[1], Weiwei Li[2], Yong Tao[3], Xiaohan Hu[4], Zhifei Liu[1]

[1]Peking Union Medical College Hospital,, Department of Plastic Surgery, Beijing, China
[2]Beijing Tsinghua Changgung Hospital Medical Center, Plastic Surgery, Beijing, China
[3]Huaxia Vitiligo Hospital, Department of Dermatology, Nanjing, China
[4]Basic Medical College, Hebei Medical University, Class 5+3 integrated clinical Medicine , Shijiazhuang, China

Introduction & Objectives:

Hairy areas such as the scalp, the eyebrow and the facial hair is a skin area with relative skin tone generally comparable to that of the rest of the body, however, these areas can occasionally be impacted by vitiligo-associated-leukotrichia. Vitiligo is a common acquired immune-mediated depigmentation disorder. The loss of pigment on hairy areas resulting in white hairs is commonly seen with patients diagnosed with vitiligo, which often results in poor aesthetics and a poor therapeutic response. Limited amount of study was found on the loss of melanocytes on hairy skin, and very few reports focused on the treatment of vitiligo on hairy areas. In this study, we aimed to explore the viability and effectiveness of repigmenting vitiligo-associated-leukotrichia using autologous cell harvesting technology.**Materials & Methods:**

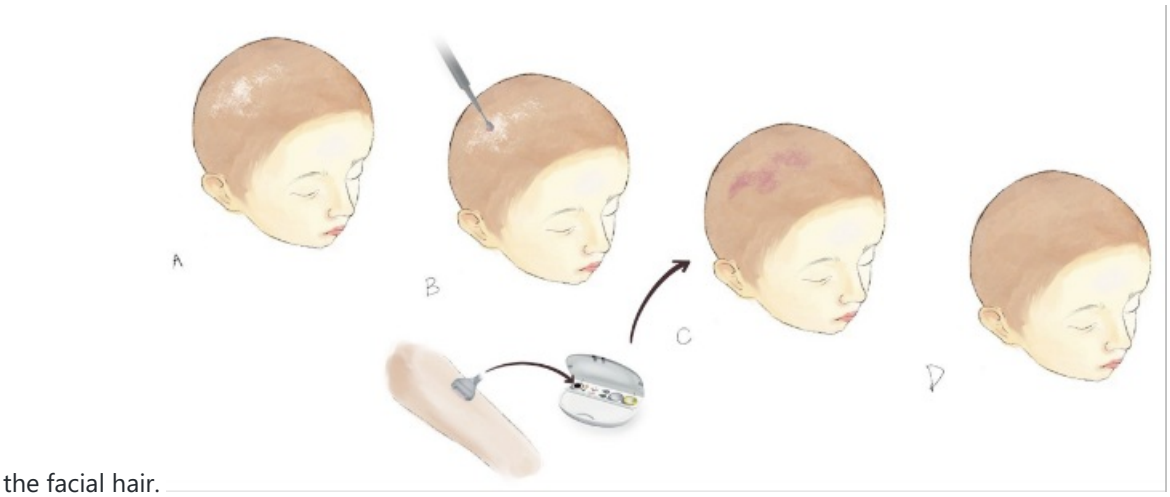
From August 2019 to June 2022, medical records of patients who received autologous cell harvesting treatment for vitiligo affecting the scalp, eyebrows and facial hair were retrospectively evaluated. The repigmentation rate of the hairy areas was calculated under the Wood's lamp at each follow-up. The grade of repigmentation and patient-reported satisfaction rate were also evaluated to prove the efficacy of autologous cell harvesting technology and repigmentation of vitiligo-associated-leukotrichia on hairy areas （Figure 1）

Results:

A total of 15 patients were included in this study. No surgical complications were reported. The mean postoperative repigmentation rate of the scalp (3rd-month, 71.4±6.2%; 6th-month, 84±5%; and 12th-month, 92.7±4%) has demonstrated good or excellent repigmentation. QOL is surveyed at the last follow-up, and 93% of them considered the overall treatment results satisfactory （Figure 2）.

Conclusion:

Based on the results of this study, we suggest that autologous cell harvesting technique is a practical and effective therapy option for patients with vitiligo-associated-leukotrichia on hairy areas such as the scalp, the eyebrows and



the facial hair.

Figure 1: Illustration of surgical procedures including ReCell® system and dermabrasion. (A) Preoperative view of vitiligo-associated-leuokotrichia on hairy areas. (B) Dermabrasion of the vitiligo affected area with a diamond-fraise wheel. (C) A split-thickness skin graft harvested from the thigh is treated with the ReCell® kit and cellular suspension is then sprayed onto the recipient area. (D) The postoperative result of vitiligo-associated-leuokotrichia on hairy areas.

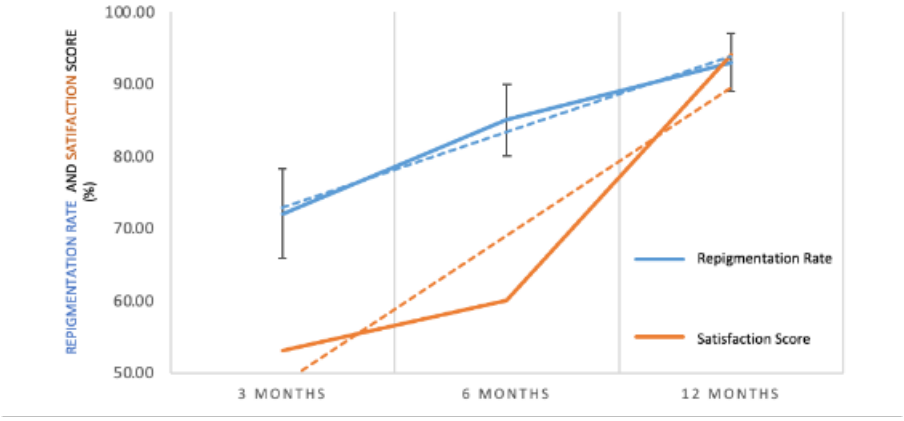


Figure 2. The repigmentation rate and satisfaction score during the 1-year follow-up.

Abstract N°: 1723

Exogenous Ochronosis by Hydroquinone is not caused by Inhibition of Homogentisate Dioxygenase but potentially by Tyrosinase-catalyzed Metabolism of Hydroquinone

Shosuke Ito[1], Ludger Kolbe[2], Gudrun Weets[2], Tamara Rogers*[2], Caroline Bushdid[2], Tomoko Nishimaki-Mogami[3], Hitomi Tanaka[1, 4], Thierry Passeron[5], Makoto Ojika[6], Kazumasa Wakamatsu[1]

[1]Fujita Health University, Toyoake, Japan
[2]Beiersdorf AG, Hamburg, Germany
[3]National Institute of Health Sciences, Kawasaki, Japan
[4]Gifu University of Medical Science, Seki, Japan
[5]University Côte d'Azur, Nice, France
[6]Nagoya University, Nagoya, Japan

Introduction & Objectives:

Hydroquinone (HQ) is a leading treatment for hyperpigmentation, commonly found in topical formulations. While effective, it poses a high risk of side effects, including exogenous ochronosis (EO), a condition that results in bluish-black patches like those in alkaptonuria. Alkaptonuria is caused by mutations in the HGD gene, leading to enzyme dysfunction and accumulation of homogentisic acid. Given the resemblance between HQ-induced EO and endogenous ochronosis in alkaptonuria, it was hypothesized that HQ might inhibit HGD. However, this hypothesis was never substantiated by biochemical evidence. To better understand EO, we explored the potential role of HGD inhibition and the metabolism of HQ by tyrosinase.

Materials & Methods:

For tyrosinase-catalyzed oxidation of HQ, recombinant human tyrosinase and HQ were mixed in the presence of L-dopa, imidazole or L-cysteine. Aliquots of the reaction mixtures were periodically analyzed by HPLC. HQ metabolism was studied by adding HQ to normal human melanocytes, followed by harvesting for further analysis. Docking was performed with the Schrödinger Suite, while the receptor grid was centered on homogentisic acid.

Results:

Gene expression analysis showed no HGD expression in human skin cells, and docking studies indicated that HQ binds to HGD with lower affinity than homogentisic acid. HPLC-UV and NMR analyses revealed that human tyrosinase primarily oxidizes L-dopa to dopaquinone, which then oxidizes HQ to produce *p*-benzoquinone (BQ). BQ reacts with imidazole or L-cysteine to form Imd-HQ or Cys-HQ, respectively, leading to HQ-pheomelanin (HQ-PM) production. 2-hydroxyhydroquinone was produced in very low yield, indicating ineffective hydroxylation of HQ by tyrosinase. In tyrosinase-expressing cells, HQ metabolism showed dose-dependent production of Cys-HQ and glutathionyl-HQ, along with a significant decrease in 5-*S*-cysteinyldopa levels, suggesting a shift from dopa-PM to HQ-PM production. PM increased only slightly by HQ treatment, whereas eumelanin increased significantly, raising the EM/PM ratio, while HQ-PM increased in parallel with HQ dose. Exposure of normal human melanocytes to HQ resulted in a slight increase in PM, a significant increase in EM, and dose- and time-dependent production of HQ-PM.

Conclusion:

Our study shows that HGD is absent in human skin, indicating that exogenous ochronosis is not due to insufficient

HGD activity or excessive homogentisic acid. Instead, EO is associated with tyrosinase activity, as especially seen in chronically sun-exposed areas, suggesting that tyrosinase is crucial for HQ-induced EO and that HQ acts as a "pseudo" substrate for human tyrosinase. While high-molecular HQ derivatives may remain in melanosomes, low-molecular HQ metabolites can penetrate the dermis, promoting the polymerization of ochronotic particles similar to those in EO. True and effective, tyrosinase inhibitors may reduce the risk of EO, while tyrosinase substrates may increase the risk of side effects.

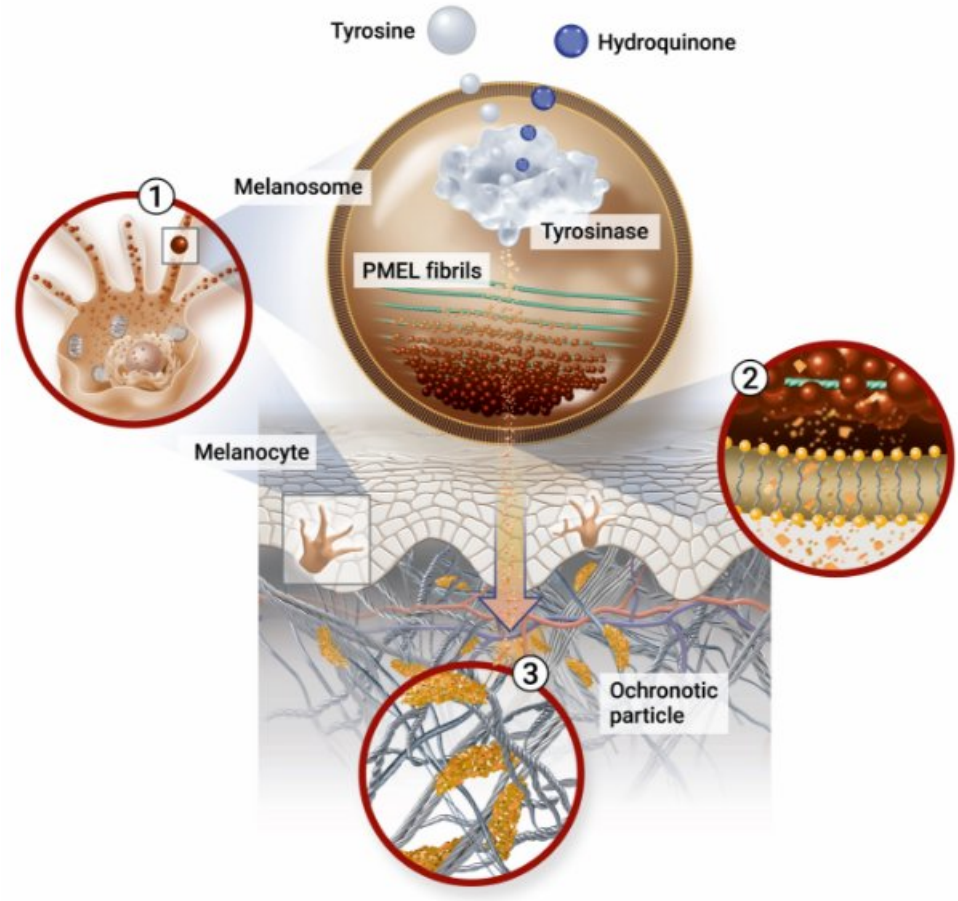


Figure 1. HQ metabolism and ochronotic particle formation. (1) Melanin and HQ-melanin are synthesized and deposited on PMEL fibrils within melanosomes. These melanosomes are transferred to keratinocytes, contributing to skin pigmentation. (2) Low-molecular weight HQ derivatives are sufficiently small to diffuse into the dermal tissue. (3) In the dermis, they bind to photo-damaged collagen fibers, leading to the formation of ochronotic particles.

Abstract N°: 1731

Pigmented Demodicosis: Case Series

Ece Atalay*[1], Tugba Kevser Uzuncakmak[1], özkan sever[1], Zekayi Kutlubay[1]

[1]Cerrahpasa Medical Faculty Hospital, Istanbul, Türkiye

Introduction & Objectives:

Pigmented Demodicosis: Case Series

Pigmented demodicosis is a rare dermatologic condition characterized by chronic follicular infestation with *Demodex* mites, which leads to persistent facial hyperpigmentation. Because of its subtle clinical presentation and absence of overt inflammation, it is often misdiagnosed as melasma or lichen planus pigmentosus. Via this case series, we aim to emphasize the need for clinical awareness of pigmented demodicosis's clinical, dermoscopic, and histopathological features and highlight identifying this treatable etiology of facial pigmentation.

Materials & Methods:

We present three pigmented demodicosis patients based on clinicopathological correlation:

- **Case 1:** A 41-year-old male with atopic dermatitis developed gradual hyperpigmented macules on his forehead and cheeks over 6 months. The dermoscopical features are "Demodex tails" and perifollicular pigmentation. Biopsy confirmed Demodex in hair follicles with perifollicular inflammation.
- **Case 2:** A 50-year-old female presented a 8-month history of facial pigmentation with mild tightness. Physical examination showed confluent gray-brown patches. Histology demonstrated Demodex mites, pigment-laden macrophages, and follicular plugging.
- **Case 3:** A 23-year-old healthy male presented with 5-year pigmentation on the forehead and zygoma. Topical corticosteroids were ineffective. Histopathology revealed Demodex and perifollicular inflammation with dyskeratotic keratinocytes.

Results:

All patients were treated with topical anti-Demodex therapies (ivermectin and/or permethrin), sulfur-based cleansers, and sunscreen. Significant improvement in pigmentation and inflammatory findings were observed within 6–10 weeks. No recurrence was noted in follow-ups ranging from 3 to 6 months.

Conclusion:

Pigmented demodicosis is a frequently neglected but treatable reason for facial hyperpigmentation. Dermoscopical features are distinguishing and may raise clinical suspicion. A biopsy is needed to confirm the diagnosis. Clinicians should consider Demodex-related pigmentation in cases where the patient is unresponsive to initial treatments. Early recognition and targeted therapy significantly improve cosmetic outcomes and patient quality of life.

Abstract N°: 1787

Sock-line bands: a rare pediatric dermatological condition

giovanna picelli[1], Ana Clara Maia Palhano[1], camila trindade de almeida[1], maria eduarda fernandes[1], Thais Kohatsu Yanase[1]

[1]Universidade de Santo Amaro , São Paulo, Brazil

Introduction & Objectives:

'Sock-line bands' is the term used to refer to a rare, benign, and underreported pediatric condition (3), characterized by the appearance of linear lesions, usually circumferential, on the calf after wearing tight clothing, particularly socks (2). It can present in different forms, but generally, it appears as a linear, erythematous lesion, partially or completely circumferential, unilateral or bilateral, on the extremities, along the area compressed by the use of tight clothing (2,3,4,6). In some cases, vesicles and local atrophy are observed (1). After resolution, post-inflammatory hyperpigmentation is noted, which may persist for 2 to 5 years (1,2).

Although the pathogenesis is not yet fully understood, it is believed that there is dermal inflammation or panniculitis related to local pressure, associated with the high saturated content of fatty acids in children's skin, which culminates in hyperpigmentation similar to the lines of the clothing in question (3,5,6). Histopathological examination demonstrates lentiginous melanocytic hyperplasia and hyperpigmentation of the basal layer, i.e., melanophages and free melanin granules are present in the papillary and reticular dermis (4).

The aim is to describe a case of a 2-year-old girl who presented with circumferential lesions on the lower limb after wearing tight socks.

Materials & Methods:

A 2-year-old female patient with no comorbidities presented to the dermatology outpatient clinic accompanied by her mother, who reported the appearance of a lesion on the left lower limb approximately two days prior. On physical examination, an erythematous vesiculobullous plaque forming an incomplete circumference on the distal portion of the left lower limb was observed. The guardian mentioned the use of tight socks and denied any behavioral changes, local or systemic symptoms in the child. The child had used hydrocortisone but reported no improvement in the condition. The mother was informed about the diagnosis, the benign nature of the condition, and the importance of wearing loose clothing. No treatment was initiated.

Results:

In the present report, we describe the case of a 2-year-old female patient who presented with an erythematous vesiculobullous plaque on the distal portion of the left lower limb, without associated symptoms. The location of the lesion corresponded to the site of contact with the elastic band of the sock. When asked about local trauma or a history of child abuse, the guardian denied it but mentioned the use of tight clothing.

Conclusion:

'Sock-line bands' is a term used to refer to a rare, benign, and underreported pediatric skin condition, characterized by the appearance of linear lesions, generally circumferential, on the calf after wearing tight clothing, especially socks. It is crucial to recognize this condition in order to differentiate it from other pediatric conditions, such as child abuse, amniotic band syndromes, and other disorders; as well as to avoid invasive measures, such as biopsy, and to provide proper guidance to parents and caregivers regarding the benign nature

of the condition and changes in clothing.

Abstract N°: 1833

Nevo melanocítico congénito gigante: Informe de un caso

Iñigo Sánchez Benítez[1], Barbara Lada Colunga[1], Irene Arebalo[1], Ane Lobato[1], Juan Luis Artola[1], Rosa Maria Izu Belloso[1]

[1]Hospital de Basurto, Bilbao

Introduction & Objectives:

Congenital melanocytic nevi (CMN) are benign skin lesions caused by clonal proliferations of melanocytes and are considered hamartomas. They are classified based on size as follows: small (<1.5 cm), medium (1.5–20 cm), large (20–40 cm), and giant (>40 cm). Although CMN are relatively common in the general population, with an estimated prevalence of 1% to 6%, large and giant forms are much rarer, occurring in approximately 1 in every 20,000 to 500,000 live births.

Materials & Methods:

Case report and literature review.

Results:

We present the case of a male newborn who exhibited a giant congenital melanocytic nevus with a "garment-like" distribution pattern. The lesion covered a large portion of the posterior trunk surface, including the back, buttocks, abdomen, proximal lower limbs, and genital area. Additionally, more than 100 satellite lesions were identified.

Due to these features, a contrast-enhanced brain and spinal MRI was performed at three months of age, which ruled out the presence of neurocutaneous melanosis (NCM) and other structural abnormalities of the central nervous system (CNS). At five months of age, the CMN had significantly lightened, and two soft, erythematous nodular lesions measuring 1 × 1 cm and 2 × 1 cm were evident in the para-scrotal and right lumbar areas. Given the clinical similarity between melanoma and proliferative nodules, surgical excision was performed, followed by histological analysis. The pathology confirmed a proliferative nodule with foci of cartilaginous differentiation.

Conclusion:

CMN are common cutaneous lesions, present in approximately 1–3% of newborns. The main complications associated with CMN include the development of melanoma and neurocutaneous melanosis. The risk of these complications increases in the presence of multiple CMN, large or giant lesions, more than 20 satellite nevi, or when the nevus is located along the axial or posterior regions of the body.

During their natural course, proliferative nodules may develop. Due to their rapid growth and clinical resemblance to melanoma, a biopsy is always recommended to ensure an accurate diagnosis. In our case, histological analysis confirmed a proliferative nodule with the unusual finding of focal cartilaginous differentiation. This is a rarely reported phenomenon in the literature and particularly intriguing, considering the ectodermal origin of melanocytes and the mesodermal origin of cartilage. Some authors propose that cells derived from the cephalic neural crest possess the potential to differentiate not only into nevic cells but also into tissues traditionally considered mesodermal in origin, such as cartilage. This pluripotent embryonic capacity could explain the presence of cartilage within a congenital melanocytic nevus.

Abstract N°: 1882

Development and Characterization of IBI3013, a Novel Half-life Extended Monoclonal Antibody Targeting Interleukin-15 (IL-15)

Jinyang Li[1], Yang Li[1], Chenjuan Zhu[1], Meng Ni[1], Fenggen Fu[1], Bin Li[1], Huijun Sha[1], Hao Wang[1], Jinling Xu[1], Yao Xiong[1], Shuaixiang Zhou[1], Li Li[1], Huizhong Xiong[1]

[1]Innovent Biologics, Suzhou, China

Introduction & Objectives:

Vitiligo remains a global unmet medical need, with limited treatment, and is caused by auto-reactive CD8 T cells that recognize and induce cytotoxicity against melanocytes. It has been demonstrated that interleukin-15 (IL-15) promotes the activation, expansion, and survival of T cells as well as the formation of resident memory T cell population in barrier tissues such as the skin and intestine. Notably, serum IL-15 levels are elevated in vitiligo patients compared to healthy population. These observations position IL-15 as a potential key disease driver and an emerging therapeutic target for vitiligo. Here, we developed IBI3013, an IL-15 targeting monoclonal antibody (mAb) with high affinity, improved potency, superior pharmacokinetics (PK), and favorable safety profile.

Materials & Methods:

To evaluate the function of IBI3013 *in vitro* - with IL-15 reporter assay, immune cell expansion assay, and CD8 T cell activation assay - reporter cells, human peripheral blood mononuclear cells, and CD3/CD28-activated CD8 T cells were stimulated with either soluble IL-15 or IL-15/IL-15Rα complex and incubated with different concentration of IBI3013, followed by assessment of luciferase signal, cell number, and IFNγ production, respectively. In the skin inflammation model, IL-15/IL-15Rα complex was administrated by intradermal injection to stimulate skin infiltrating T cell activation and expansion. In the graft-versus-host disease (GvHD) model, IL-15/IL-15Rα complex was administrated by intraperitoneal injection to stimulate T cell expansion and enhance disease progression. In the *in vivo* studies, IBI3013 was administrated by intraperitoneal injection.

Results:

In *in vitro* functional assays, including IL-15 reporter assay, immune cell expansion assay, and CD8 T cell activation assay, IBI3013 showed superior blocking potency compared to a benchmark IL-15 mAb. Additionally, low dose of IBI3013 significantly suppressed IL-15 induced skin inflammation and IL-15 enhanced graft-versus-host disease in mouse models. Notably, cryogenic electron microscopy and Bio-layer interferometry revealed that IBI3013 targets a unique and differential epitope on IL-15, specifically antagonizing its interaction with Rγ without disrupting its binding to Rβ, potentially enabling the dominant negative function of antibody-cytokine immune complex. We also incorporated the clinically validated Fc engineering, YTE (M252Y/S254T/T256E), to prolong IBI3013's half-life. IBI3013 exhibited favorable developability, achieving a 200 mg/mL formulation suitable for subcutaneous dosing. In the monkey PK study, IBI3013 exhibited a half-life of 430 hours. Moreover, the toxicity study in monkey showed no adverse effect at doses up to 300 mg/kg, underscoring IBI3013's favorable safety profile.

Conclusion:

In summary, we developed a potent and half-life extended IL-15 mAb with potential as an effective, safe, and convenient treatment for patients with vitiligo and other IL-15 driving autoimmune diseases, including alopecia areata and celiac disease.

Abstract N°: 2012

Efficacy of 1064-nm picosecond laser in the treatment of lichen planus pigmentosus: a split-face randomized controlled trial

Suthinee Rutnin[1], Supachak Smitthisakda*[1], Namthong Wittayabusarakam[1], Nawara Sakpuwadol[1], Tanat Yongpisarn[1], Kunlawat Thadanipon[2]

[1]Faculty of Medicine Ramathibodi Hospital, Mahidol University, Division of Dermatology, Department of Medicine , Bangkok, Thailand
[2]Faculty of Medicine Ramathibodi Hospital, Mahidol University, Division of Dermatology, Department of Medicine , Department of Clinical Epidemiology and Biostatistics, Bangkok, Thailand

Introduction & Objectives: Lichen planus pigmentosus (LPP) is an uncommon variant of lichen planus that causes visible pigmentation, impacting quality of life. Current treatments of LPP are limited, with inconsistent outcomes from topical, oral, and laser therapies. The 1064-nm picosecond laser shows capacity for managing pigmented skin disorders; however, there are few reports about its effect on LPP. This study aimed to evaluate the efficacy, safety, and patient satisfaction of the 1064-nm picosecond laser in treating facial LPP.

Materials & Methods: The study was a prospective randomized, split-face controlled trial. Each participant underwent four monthly sessions of 1064-nm picosecond laser treatment on one randomly selected side of the face, while the contralateral side served as a control. Outcomes included the modified dermal pigmentation area and severity index (mDPASI), melanin index (MI) measured by three-dimensional imaging, physician global assessment (PGA), patient satisfaction scores, and reported adverse effects. All outcomes were evaluated up to 6 months post-laser treatment.

Results: Twelve patients with LPP (mean age 55±11.1 years) were enrolled, with 11 patients completing four sessions of 1064-nm picosecond laser treatment and included in the analysis. No significant differences were observed in mDPASI, MI, and PGA between treatment and control sides ($p > 0.05$). However, patient satisfaction scores showed a significant improvement on the treatment side at 1 month ($p = 0.005$) and 6 months ($p = 0.008$) post-treatment compared to the control. The mean overall pain score was 3.7±1.7, with no major adverse effects reported.

Conclusion: The 1064-nm picosecond laser demonstrated limited effectiveness in improving LPP clinical outcomes, yet it significantly improved patient satisfaction. Further research is needed to optimize treatment parameters and validate the role of picosecond laser treatment in LPP.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2152

Nevus of Ota complicated by uveal melanoma and subsequent vitiligo: a unique case report

Marwa Faik Ouahab[1], Bouchra El ghouti[1], Fatima Zahra Agharbi[1], Soumiya Chiheb[1]

[1]Cheikh Khalifa International University Hospital , Dermatology, Casablanca, Morocco

Introduction & Objectives:

Nevus of Ota (NO) or oculodermal melanocytosis, is a rare pigmentary disorder characterized by a melanocytic hyperpigmentation along the trigeminal nerve distribution with an increased risk of uveal melanoma (UM). In addition, the appearance of vitiligo within a NO is exceptional. We report a case in which these three dermatoses are present in the same patient.

Case Report:

A 61-year-old woman with a history of left-sided NO and ipsilateral UM treated with enucleation three years ago, presented for progressive facial depigmentation evolving over one year. Dermatological examination revealed a bluish-gray hyperpigmentation involving the left fronto-orbito-maxillary region of the face along with achromic macules on the nose and perioral area with poliosis on the right eyebrow. The rest of the cutaneous examination was unremarkable, with no additional pigmented or depigmented lesions found on the body. The diagnosis of vitiligo associated with NO following treatment for UM was established. Treatment consisted of topical tacrolimus 0.1%. The patient was also followed regularly by ophthalmology for her history of UM.

Discussion: The occurrence of these three dermatoses. Such a combination is exceptional and raises important questions regarding the pathophysiological mechanisms that may underlie this rare triad. The association between NO and UM, although rare, is well documented in the literature. NO is characterized by dermal melanocytosis, and the presence of melanocytes in the ocular and periocular tissues is believed to contribute to the development of ocular complications. Among these, glaucoma and UM are the most occurrent.** UM represents the most common primary intraocular malignancy in adults and, when occurring in the context of NO may reflect a higher melanocytic burden or a predisposed microenvironment favoring malignant transformation. In contrast, the association between NO and vitiligo is extremely rare. Only a few cases have been reported and its underlying mechanisms remain poorly understood. It has been suggested that the autoimmune response directed against melanocytes in vitiligo could be somehow triggered or modulated by the altered melanocytic distribution in NO although this remains unproven.

The relationship between UM and vitiligo adds another layer of complexity. In patients with cutaneous melanoma, the development of vitiligo is considered a favorable prognostic marker, often indicating an effective immune response targeting melanoma-associated antigens shared by normal melanocytes. In the case of UM, the evidence is more limited, but similar mechanisms could be involved. The onset of vitiligo after treatment, particularly in the absence of other immunotherapy, might suggest either a delayed paraneoplastic response or an immune reconstitution phenomenon. Alternatively, it could signal a subclinical recurrence stimulating a new autoimmune reaction, which underscores the need for close and prolonged monitoring, both dermatologically and ophthalmologically.

Conclusion: This case underscores the potential interplay between genetic susceptibility, local melanocytic abnormalities, and systemic immune regulation. It highlights the importance of considering the skin and ocular findings within the same clinical spectrum and encourages further research into the immune mechanisms linking melanocytic disorders and melanoma-associated depigmentation.

Abstract N°: 2373

Durability of the response to narrowband ultraviolet B-induced repigmentation in vitiligo: A retrospective study

Riad Kassem*[1], felix pavlotsky[1]

[1]Sheba Medical Center, Dermatology Department, Ramat Gan, Israel

Introduction & Objectives:

Narrowband ultraviolet B (NB-UVB) phototherapy is a well-established vitiligo treatment. However, data on the long-term effects of NB-UVB-induced repigmentation are limited

To evaluate the long-term durability of repigmentation achieved through narrowband ultraviolet B (NB-UVB) phototherapy in patients with non-segmental vitiligo and to identify demographic and clinical factors that are associated with sustained treatment response

Materials & Methods:

A retrospective study analyzing data from 176 patients with non-segmental vitiligo treated with NB-UVB phototherapy for up to one year between 2003 and 2022. Demographic and clinical variables, including age, gender, skin phototype, body site involvement, treatment duration, cumulative radiation dose and clinically significant repigentation response, were collected. Clinically significant repigmentation was defined as ≥50% repigmentation of vitiligo-affected areas, and a durable response was considered as repigmentation lasting ≥6 months post-treatment with NB-UVB

Results:

Of the 176 patients, 80 (45%) achieved clinically significant repigmentation, with the highest success rates observed in the face and neck region (53%). Among responders, 76 (95%) patients maintained their response for ≥6 months post-treatment discontinuation, and 47 (59%) sustained repigmentation for over 72 months. A higher success rate (≥50% repigmentation), longer treatment duration (>18 months), and higher cumulative radiation dose (>356 J/cm^2) were associated with a durable repigmentation response

Conclusion:

NB-UVB phototherapy provides a durable repigmentation response in non-segmental vitiligo, with a substantial proportion of patients maintaining results for over six years. Achieving a clinically significant response post- NB-UVB phototherapy, prolonged treatment duration, and cumulative radiation dose are key factors associated with long-term repigmentation

Abstract N°: 2383

Amlodipine-Induced Schamberg's Disease: A Case Report

Sofiia Tymchuk*[1]

[1]Saint-Petersburg State University, Saint-Petersburg, Russian Federation

Introduction & Objectives:

Schamberg's disease is the most frequent type of pigmented purpuric dermatosis. It is characterised by persistent petechial and brownish macules resulting from chronic capillaritis and hemosiderin deposition. Although benign, the condition may cause cosmetic distress. In rare cases, it may be associated with drug intake, which underlines the importance of a detailed medication history.

Materials & Methods:

The study includes the collection, analysis, and presentation of data such as complaints, medical and life history, findings from physical, laboratory, and instrumental examinations, treatment history, and patient follow-up. A literature review was conducted using original research and review articles from databases such as ScienceDirect, Scopus, PubMed, Elsevier, and others over the past five years.

Results:

A 35-year-old man presented with a 3-month history of asymptomatic, progressively spreading brownish macules on the left lower leg and foot. The lesions appeared approximately 4 weeks after initiating amlodipine (5 mg/day) for intermittent hypertension. Clinical examination revealed multiple sharply demarcated reddish-brown macules of irregular shape, non-palpable and non-inflammatory, confined to the left lower limb. The right leg was unaffected. Skin biopsy showed superficial perivascular lymphocytic infiltrate in the papillary dermis, erythrocyte extravasation and hemosiderin deposits, without signs of vasculitis. Based on the clinical features, histological findings and drug history, a diagnosis of Schamberg's disease, likely induced by amlodipine, was made. Amlodipine was discontinued. The patient was treated with pentoxifylline 400 mg BID, ascorbic acid 500 mg/day and a short course of topical corticosteroids. At 8-week follow-up, no new lesions were observed, and partial fading of pigmentation was noted.

Conclusion: This case highlights a classic presentation of Schamberg's disease with a possible link to amlodipine. Drug discontinuation combined with vascular and antioxidant therapy contributed to disease stabilisation. A careful review of medication history is essential in patients with purpuric eruptions.

Abstract N°: 2586

Frequency and types of pigmentation disorders in psoriasis patients treated with biologics

Neda Delic*[1], Jovana Bogdanović[2], Jelena Peric[1, 3], Jelena Stojkovic-Filipovic[1, 3], Dusan Skiljevic[1, 3]

[1]University Clinical Center of Serbia, Clinic of Dermatology and Venereology, Belgrade, Serbia
[2]University of Belgrade Faculty of Medicine, Belgrade, Serbia
[3]University of Belgrade Faculty of Medicine, Department of Dermatology and Venereology, Belgrade, Serbia

Introduction & Objectives: Numerous cytokines and other immune mechanisms that trigger psoriasis can also affect melanogenesis, resulting in various skin pigmentation disorders. Biological therapy of psoriasis, targeting cytokines involved in its pathogenesis, may additionally lead to pigmentation disorders, which have not been sufficiently investigated. The aim of our research was to examine the frequency and types of pigmentation disorders in biologics-treated psoriasis patients and to explore associated clinical factors.

Materials & Methods: We conducted an observational cross-sectional study involving 112 male psoriasis patients receiving biological therapy at our department, recruited between November 2024 and February 2025. Clinical examination determined the presence and type of pigmentation disorder and skin phototype, while anamnestic and demographic data were obtained from medical records.

Results: Postinflammatory dyspigmentation (PID) was the most commonly observed pigmentation disorder, affecting 71 of 112 patients (63.4%). Postinflammatory hyperpigmentation was noted in 57 patients (50.9%), hypopigmentation in 18 (16.1%), and coexisting both hyper- and hypopigmentation in 4 (3.6%). Vitiligo was noted in 5 (4.5%) patients, with only one case emerging during biological therapy of psoriasis. Solar lentigines were present in 32 (28.6%) patients. Higher initial PASI ($p=0.027$, OR 1.09, 95% CI 1.01-1.17) and hyperlipidemia ($p=0.023$, OR 5.22, 95% CI 1.26-21.65) were significant predictors of PID, while special forms of psoriasis (palmoplantar, inverse psoriasis, acrodermatitis continua) were associated with a reduced likelihood of PID ($p=0.027$, OR 0.18, 95% CI 0.04-0.83). Postinflammatory hyperpigmentation was linked to higher body mass at examination (96.8±12.3 kg vs. 87.1±10.2 kg; $p<0.001$) and hyperlipidemia (29.8% vs. 12.7% of patients; $p=0.027$). In contrast, hypopigmentation was associated with lower body mass (86.7±14.6 kg vs. 93.1±11.6 kg, $p=0.042$) and higher initial PASI (14.3 vs. 11.1; $p=0.008$). No significant differences were found in the quality-of-life measures between groups in relation to the presence or type of PID.

Conclusion: Postinflammatory dyspigmentation was present in nearly two-thirds of psoriasis patients treated with biological therapy, most common being postinflammatory hyperpigmentation. Body mass at examination and the highest recorded PASI values had the greatest influence on the existence and type of PID. The presence and type of PID did not affect quality of life. Our findings indicate that pigmentation disorders are common yet underinvestigated in patients with psoriasis. Further research into cytokine pathways and their effects on pigment regulation is needed to better understand the link between psoriasis and pigmentation disorders.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 2689

Biophysical and ultrasonographic findings of cutaneous macular amyloidosis lesions in comparison with uninvolved skin

Taraneh Yazdanparast[1], Alireza Firooz*[1], Aurif Nassiri Kashani[2], Mansour Nassiri Kashani[1], Mehdi Gheisari[2], fatemeh amiri[1]

[1]Center for Research and Training in Skin Diseases and Leprosy, Tehran University of Medical Sciences, Tehran, Iran
[2]Skin Research Center, Shahid Beheshti University of Medical Sciences , Tehran, Iran

Introduction & Objectives: Macular amyloidosis (MA) is a primary localized cutaneous amyloidosis (PLCA), characterized by amyloid deposition in the papillary dermis. The goal of this study was to compare biophysical characteristics in MA lesions with uninvolved skin.

Materials & Methods: Stratum corneum (SC) hydration, trans epidermal water loss (TEWL), surface friction, pH, sebum, melanin, erythema, temperature, elasticity parameters (R0, R2, and R5), thickness and echo-density of epidermis and dermis were measured on the active MA lesions in 22 patients, and compared with the healthy area adjacent to the lesion as control. Paired t- test was used for statistical analyses and a $P<0.05$ was considered significant.

Results: SC hydration, skin friction were significantly lower, whereas TEWL, pH, erythema index, melanin content, and the thickness of epidermis were significantly higher in MA lesions. There was no significant difference in other biophysical and ultrasonographic parameters between MA and normal skin. Figure 1 shows ultrasound picture of the MA lesion (upper picture) and control (lower picture), decreasing dermal density and increasing epidermal thickness is seen in the lesions.

Conclusion: MA lesions are characterized by certain changes in biophysical and ultrasonographic characteristics, which provide valuable information about the MA. These changes are likely to be useful in the early and non-invasive detection of MA in the future as well as follow-up of healing lesions and monitoring progress during treatment. Investigation of the infrastructure of these disorders in future studies can be a way to provide more effective treatment methods.

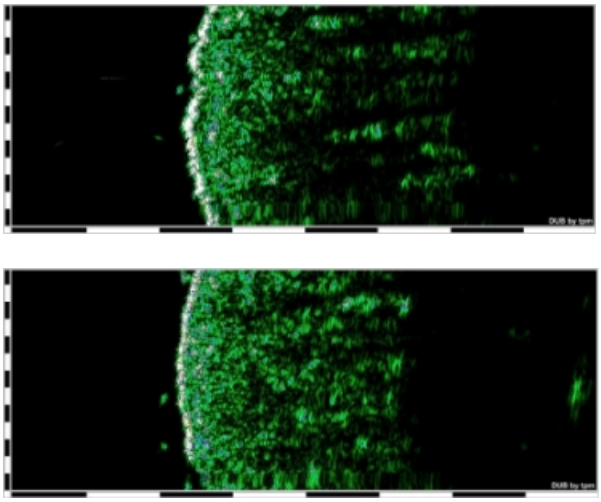


Figure 1: Ultrasound picture of the upper back MA lesion (upper picture) and control (lower picture), decreasing

dermal density and increasing epidermal thickness is seen in the lesions

Abstract N°: 2951

Factors Associated to Quality of Life in Vitiligo Patients: Cross-sectional analysis of a a population-based vitiligo cohort from Denmark

Alejandro Castillo Mondragón*[1], Iben Marie Miller[1], Anette Bygum[2, 3], Elgina Thomsen[4], Randi K Bechmann[5], Cecilie Rovsing[6], Zarqa Ali[7], Asger Bihlet[1]

[1]Blueskin A/S, Copenhagen, Denmark
[2]Hudklinikken Kolding, Kolding, Denmark
[3]University of Southern Denmark, Clinical Institute, Odense , Denmark
[4]Sanos Clinic Herlev, Herlev, Denmark
[5]Sanos Clinic Vejle, Vejle, Denmark
[6]Sanos Clinic Gandrup, Gandrup, Denmark
[7]Bispebjerg Hospital, Dermatology And Wound Healing Center, Copenhagen, Denmark

Introduction & Objectives:

Vitiligo is a chronic autoimmune disease with progressive loss of melanocytes, resulting in pale or white macules or patches surrounded by normal-looking skin. The prevalence in Denmark is around 0.5%.

Although patients with vitiligo might experience fewer symptoms and/or physical limitations compared to other dermatological diseases such as atopic dermatitis or psoriasis, the psychosocial impact of this disease is significant, having a negative impact on the patients' quality of life (QoL).

The objective of this analysis is to explore factors that may be associated with the quality of life in patients with vitiligo.

Materials & Methods:

The analysis is a cross-sectional analysis of baseline data from a population-based vitiligo-cohort being part of a larger prospective, non-interventional observational study of adult patients with different dermatological diseases. (Derma-001 NCT06319781). Data collected included demographics, Fitzpatrick skin type, blood samples, Body Surface Area (BSA), Vitiligo Area Scoring Index (VASI), The Vitiligo European Task Force (VETF), self-reported Vitiligo disease activity (VIDA) score and the World Health Organization Quality of Life (WHOQOL) questionnaire. This QoL questionnaire is a generic questionnaire assessing the overall QoL and various aspects of the patient's life.

For the analysis, the correlation between self-perceived quality of life and various factors, including total BSA, BSA assessed by regions (head and neck, arms, trunk and legs), VASI scores, and Fitzpatrick skin type, was explored using the Pearson correlation coefficient.

Results:

A total of 59 participants with vitiligo were recruited. The mean age was 53.64 years, and 75.4% were female. The majority had Fitzpatrick skin type 1-3 (72.9%). The mean VASI was 14.47 (0 to 100), with a mean BSA of 19.73%, and mean BSA by region: Head and Neck 2.20%, arms 4.81%, trunk 5.39% and legs 7.322%.

Statistically significant negative correlations were found between self-perceived quality of life (QoL) and both VASI ($r = -0.3281$, $P = 0.0112$) and BSA of head and neck area ($r = -0.3447$, $P = 0.0075$), indicating that higher scores in

these areas are associated with lower QoL. The extent of vitiligo as measured by the total BSA also showed a significant negative correlation with QoL (r = -0.2687, P = 0.0396), as did BSA of the arms region (r = -0.2581, P = 0.0484).

Although BSA of the leg region (r = -0.25, P = 0.0562) and BSA of the trunk region (r = -0.2176, P = 0.0979) showed negative correlations with QoL, these were not statistically significant. Additionally, no significant correlation was found between Fitzpatrick skin type (grouped 1-3 and 4-6) and QoL (r = -0.03925, P = 0.7679).

Conclusion:

These findings suggest that greater vitiligo involvement, particularly in visible areas such as the head and arms, is associated with a lower quality of life.

Table 1 – Demographics by QoL rating

	How would you rate your quality of life							
	Poor	N=4	Neither poor nor good	N=5	Good	N=34	Very good	N=16
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
AGE	51.75	10.53	54.40	8.96	56.27	14.00	48.69	15.91
Sex								
Female	3	75%	4	80%	25	74%	12	75%
Male	1	25%	1	20%	9	26%	4	25%
FITZPATRICK skin type								
1	0	0%	0	0%	0	0%	1	6%
2	1	25%	1	20%	6	18%	0	0%
3	2	50%	2	40%	19	56%	11	69%
4	1	25%	1	20%	9	26%	4	25%
5	0	0%	1	20%	0	0%	0	0%
6	0	0%	0	0%	0	0%	0	0%
BMI	23.275	2.86	29.34	5.56	28.01	5.07	24.29	3.57
Age of diagnosis	20	14.58	25.80	15.96	32.97	17.23	28.50	14.55
Duration of diaseas	31.5	4.80	28.00	17.09	22.97	16.38	19.69	14.16
BSA	32.5	37.56	42.40	36.60	15.20	17.74	16.17	21.04
BSA arms	8.25	7.80	7.60	5.77	4.47	4.53	3.81	4.04
BSA head neck	3.5	3.70	4.40	3.44	2.15	1.99	1.31	1.35
BSA legs	13.25	15.31	17.20	14.13	5.68	8.08	6.25	9.12
BSA Trunk	10.5	16.38	12.60	14.21	4.12	6.55	4.56	8.95
VASI	31.238	38.11	32.88	33.16	11.79	15.78	10.22	9.96
VETF Extent	35.5	42.30	41.80	35.23	16.41	18.74	15.94	21.99
VETF Spreading	0.5	1.00	0.20	0.45	0.94	2.03	0.06	0.85
VETF Staging	10.75	5.25	11.00	2.55	7.67	4.81	8.88	5.01
VIDA	3.5	0.58	1.33	1.53	2.42	1.54	2.63	1.63
WHOQLIV								
Self perceived health 1-5	2.5	1.91	2.60	0.55	3.56	0.75	4.31	0.70
Physical health 0-100	29.75	10.69	37.60	6.50	47.15	10.17	51.75	10.64
Phycological 0-100	48.5	18.70	45.20	11.43	57.24	11.69	61.75	12.95
Social relationships 0-100	72	18.13	56.20	17.25	74.27	12.55	78.81	15.34
Environment 0-100	67.25	19.52	70.40	13.45	77.88	8.57	78.69	10.79
NLR	2.417	0.43	1.90	0.78	2.12	0.74	2.46	0.82
Leukocytes	5.733	1.50	5.89	0.46	7.14	2.43	5.94	1.29

Abstract N°: 3063

Pigmented Demodicidosis; another pigmentary differential to think about.

Sabrina Escandón Pérez*[1], Cristina Berumen Glinz[1], Sonia Toussaint Caire[2], Juan David Dufflart Ocampo[3], Laura Sinai Parra Jaramillo[2], Fátima Diéz Gutierrez Huerta[4], Ana Laura Ramirez Terán[1]

[1]Hospital General "Dr. Manuel Gea González", Dermatology Department, Ciudad de México, Mexico
[2]Hospital General "Dr. Manuel Gea González", Dermatopathology Department, Ciudad de México, Mexico
[3]CES University, Dermatopathology Department, Medellín, Colombia
[4]Hospital Español, Medical Intern, Ciudad de México, Mexico

Introduction & Objectives:

Pigmented demodicidosis is a rare and underdiagnosed variant of demodicidosis characterized by facial hyperpigmentation due to overpopulation of *Demodex* spp. mites. Despite being described over a century ago, literature remains scarce. We aim to present a clinical case of pigmented of demodicidosis, its dermoscopic characteristics, histopathological findings, as well as the successful therapeutic response.

Materials & Methods:

We report the case of a 51-year-old woman from Mexico City with a 3-year history of asymptomatic hyperpigmented macules on the earlobes, nasal alae, and left cheek. The patient had a medical history of hypothyroidism, insulin resistance, adrenal insufficiency, and systemic sclerosis, none under treatment. Dermoscopy showed perifollicular peppering. An incisional biopsy revealed lymphocytic folliculitis with pigment dropout and various *Demodex* mites. A subsequent superficial biopsy of the earlobe confirmed the findings with abundant *Demodex* mites. Topical ivermectin was prescribed twice daily, resulting in a significant improvement in pigmentation.

Results:

This diagnosis was initially described in 1898 but has only been reported in a few case reports, the exact mechanism by which it causes hyperpigmentation is not fully understood. The clinical characteristics described are brown or gray macules of various sizes localized mainly on the face, mostly asymptomatic. Dermoscopic findings include gelatinous filaments corresponding to the so-called 'tails' of the mite, and perifollicular peppering, which correlates histopathologically with pigment dropout, other histopathology findings include dilated follicular infundibula filled with *Demodex* mites, vacuolar interface changes, perifollicular lymphohistiocytic infiltrates, and dermal melanophages, as seen in our case, also; treatment with topical ivermectin led to gradual improvement in pigmentation as supported by the few literature reports which showed clinical resolution in over 70% of cases within 10–24 months of treatment with acaricidal agents.

Conclusion:

Pigmented demodicidosis remains an overlooked differential diagnosis in patients with facial hyperpigmentation, particularly in asymptomatic cases. Dermoscopy, superficial biopsy, and, when necessary, histopathology are essential tools for diagnosis. Unlike other pigmentary disorders that are often challenging to manage, pigmented demodicidosis typically responds well to acaricidal therapy, as demonstrated in our case and supported by the literature. This highlights the importance of considering demodicidosis in the differential diagnosis of facial hyperpigmentation, as early recognition can lead to effective treatment.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 3122

Evidence from China: efficacy and tolerability of a depigmenting serum containing Isobutylamido-thiazolyl-resorcinol (Thiamidol) as a monotherapy or an adjunctive treatment for hyperpigmentation

Yiwen Yang*[1], Xi Fang[2], Qiao He[3], Yusheng Lee[3], Chengfeng Zhang[1]

[1]Huashan Hospital, Fudan University, Shanghai
[2]Eucerin Medical Management, Beiersdorf, Shanghai
[3]Shanghai Maise Information Technology Co., Ltd.（Umer Doctor）, Shanghai

Introduction & Objectives:

In global, pigmentary disorders are frequent dermatological conditions, impacting patients' physical appearance, psychological health, and social functioning. Additionally, sensitive skin is also a global concern, and the prevalence of Chinese women is 36.1%. Therefore, how to address hyperpigmentation safely and effectively is a focal point in the dermatological field in China, especially for those with sensitive skin. Isobutylamido-thiazolyl-resorcinol (Thiamidol) is a human tyrosinase inhibitor by inhibiting melanin production. Meanwhile, Licochalcone A, an antioxidant and anti-inflammatory agent, could improve the symptoms of sensitive skin. This prospective study aims to systematically evaluate the clinical efficacy and safety profile of a depigmenting serum containing Thiamidol and Licochalcone A, as a monotherapy or an adjunctive therapy, for hyperpigmentation treatment.

Materials & Methods:

A depigmenting serum containing Thiamidol and Licochalcone A was applied twice daily in Chinese subjects with facial hyperpigmentation over a 28-day treatment period. Objective and subjective multimodal assessments were performed at baseline (Day 0), Day 7, Day 14, and Day 28. Efficacy and safety outcomes were evaluated through clinician assessments and self-assessments. Clinician assessments included the Investigator's Global Assessment (IGA), the Dermatology Life Quality Index (DLQI), the Sensitive Scale-10 (SS-10) and systematic monitoring of adverse events (redness and stinging). Subjects completed self-assessments using a 5-point treatment satisfaction questionnaire and a 10-point perceived efficacy scale. For statistical analysis, the Wilcoxon Signed-Rank Test was used for within-group comparisons and time-course analysis, with p-values adjusted for multiple testing using the Benjamini-Hochberg method.

Results:

The study involved 112 subjects (92.93% females, mean age 35.98 years, 92.78% Fitzpatrick skin types II–IV) with all skin types (table 1).

Table 1. The skin type of 112 subjects

Skin type	Percentage (%)
Mixed	45.36
Normal	15.46
Dry	18.56
Sensitive	12.37
Oily	8.25

During the product usage, clinician assessment demonstrated significant decreases in IGA ($p<0.001$) and DLQI ($p<0.001$) scores, and also in redness ($p<0.001$) and stinging ($p<0.05$) at D14. For sensitive skin, a significant

improvement in SS-10 score ($p<0.05$) at the same period. Similarly, the subject's self-assessment demonstrated significant decreases in redness ($p<0.001$) and sensitivity ($p<0.001$), likewise in stinging ($p<0.01$) at D14.

Additionally, experts showed a high product acceptance. 80% of experts agreed/strongly agreed that an improvement of skin tone uniformity, pigmentation and lightening at D14. And it increased to >90% at D28. Meanwhile, the subject's self-assessment showed a significant decrease in hyperpigmentation ($p<0.001$) in this period and marked improvements in skin luminosity ($p<0.05$) and brightness ($p<0.05$) at D14.

Finally, 95% of experts agreed with the product's efficacy in adjunctive treatment of hyperpigmentation, and 85% agreed with its spot lightening effects for sensitive skin. Meanwhile, 99% of subjects expressed willingness to recommend the serum to others.

Conclusion:

The current study demonstrated that a serum containing Thiamidol and Licochalcone A used alone or in combination with drugs and/or laser therapies, was well tolerated by all skin types (especially sensitive skin) with no adverse effects and comprehensively improved skin tone.

Abstract N°: 3131

Efficacy of Vitamin C, E, and Ferulic Acid Serum for Managing Post-Excimer Laser Hyperpigmentation in Patients with Facial Vitiligo

Jung Min Bae[1], Hyun Jeong Ju[1], Juhee Han[1]

[1]The Catholic University of Korea, Dermatology, Seoul, Korea, Rep. of South

Introduction & Objectives:

Vitiligo is a common chronic depigmenting dermatological disorder affecting approximately 1% of the population. While novel therapeutic agents continue to emerge, phototherapy including excimer laser treatment, remains the standard of care. However, repeated ultraviolet radiation exposure frequently induces unwanted hyperpigmentation, which can significantly impact patients' quality of life during the treatment process. Vitamin C serum has been recognized for its properties not only as an antioxidant but also for its efficacy in treating hyperpigmentation. This study aimed to evaluate whether the application of a serum containing Vitamin C, Vitamin E, and ferulic acid could alleviate post-excimer laser hyperpigmentation in facial vitiligo patients while maintaining treatment efficacy.

Materials & Methods:

Four patients with facial vitiligo who developed hyperpigmentation during treatment with twice-weekly excimer laser therapy and twice-daily topical tacrolimus 0.1% application were enrolled. The intervention involved adding twice-daily application of a serum containing Vitamin C (15% L-ascorbic acid), Vitamin E (1% alpha tocopherol), and ferulic acid (0.5%) to their existing treatment regimen. All patients were evaluated for repigmentation and hyperpigmentation at monthly intervals using UV photography and VISIA® (Canfield, USA) imaging system.

Results:

All four patients achieved F-VASI90 (Facial Vitiligo Area Scoring Index 90% improvement), with significant improvement in hyperpigmentation. Patient satisfaction with the combined treatment approach was high in all patients. However, one patient experienced vitiligo recurrence during the three-month follow-up period, although the association between this recurrence and the intervention remains unclear.

Conclusion:

The serum containing Vitamin C, Vitamin E, and ferulic acid demonstrated substantial efficacy in managing post-excimer laser hyperpigmentation in vitiligo patients without interfering with the therapeutic effects of excimer laser treatment. This combination therapy represents a promising adjunctive treatment option for managing treatment-related hyperpigmentation while maintaining optimal therapeutic outcomes in facial vitiligo patients.

Abstract N°: 3145

Biophysical features of skin affected by vitiligo

Kateryna Karpenko[1]

[1]IPS Virtus, Odesa, Ukraine

Introduction & Objectives:

Vitiligo is classified as an acquired chronic disease within the dyschromias group. Its pathogenesis involves a marked decrease in melanin production and death of melanocytes, yet the exact mechanisms remain unclear, contributing to the complexity of its treatment. Vitiligo can also significantly impact patients' quality of life. The objective of this study was to investigate biophysical characteristics of vitiligo-affected skin, to enhance a comprehensive management approach.

Materials & Methods:

A total of 107 patients aged 19–65 years with confirmed vitiligo were enrolled. All participants underwent:

- Ultrasound Assessment of skin lesions to measure epidermal and dermal thickness;
- Doppler Sonography of skin microcirculatory vessels to determine volumetric blood flow;
- Hydration Testing using corneometry to assess skin moisture levels;
- Dermoscopy to evaluate pigmentary and vascular features.

The control group was a group of 20 healthy individuals, without signs of vitiligo and other skin diseases, representative in gender and age of the comparison study group.

Results:

Decreased skin hydration was observed in 62 (57.9%) patients; the median hydration level among all participants was 36.0 [29.0; 48.0] units. Doppler sonography revealed abnormal blood flow in 20 (19%) patients, with a mean volumetric flow rate of 0.07 [0.06; 0.09] mL/cm^3/min; of these, 13 (12.2%) showed a decrease in blood flow in vitiligo lesions, while 7 (6.5%) had increased flow. Complete pigment loss on dermoscopy was identified in 99 (92.5%) patients, whereas partial pigment loss appeared in 8 (7.5%). A moderately pronounced vascular pattern (single and separate vascular branches or punctate vascular globules) occupying up to 30% of the lesion area, with slight lividity, was found in 2 (1.9%) patients.

Ultrasound measurements showed normal epidermal thickness in 72 (67.3%) patients, with 21 (19.6%) demonstrating thickened and 14 (13.1%) thinned epidermis. Dermal thickness values were within the normal range in 88 (82.2%) patients; 13 (12.1%) had an increased dermal thickness and 6 (5.6%) a decreased one.

Conclusion:

The study identified specific biophysical abnormalities in vitiligo-affected skin, including decreased hydration and changes in skin circulation. The changes in biophysical parameters of the affected skin in patients reflect complex functional disturbances that may affect the integrity of melanogenesis, and assessing these changes dynamically can be useful for optimizing the treatment regimen for patients with vitiligo. Additionally, the observed findings serve as a basis for leveraging cell-based therapeutic methods aimed at restoring melanocytes and normal keratinocyte function in the affected skin.

Abstract N°: 3156

Vitiligo Under the Lens: Tracing the Hidden Architecture of the Pilosebaceous Unit through Non-Invasive Imaging

Alessia Paganelli*[1], Luca Ambrosio[1], Claudio Conforti[1], Mauro Picardo[1]

[1]IDI-IRCCS Istituto Dermopatico dell'Immacolata, Rome, Italy

Introduction & Objectives: Vitiligo is an acquired depigmenting disorder marked by the loss of melanocytes, resulting in sharply demarcated depigmented macules. Dermoscopy plays a pivotal role in both diagnosis and follow-up, allowing visualization of characteristic features such as perifollicular pigmentation and leukotrichia. Although the focus of most research has traditionally been on melanocyte destruction, emerging evidence highlights the involvement of the dermal compartment—particularly fibroblasts and sebaceous glands. Structural changes in the pilosebaceous unit and altered sebum composition have been described in vitiligo, pointing to their potential role in disease pathogenesis. The aim of the present study was to assess the presence of alterations of the pilosebaceous unit in vitiligo using non-invasive imaging techniques.

Materials & Methods: We performed a dermoscopic analysis of vitiligo lesions located in seborrheic facial areas in a cohort of 20 patients. Inclusion criteria were: i) confirmed diagnosis of non-segmental vitiligo, ii) facial involvement, iii) clinically stable disease, and iv) availability of both clinical and dermoscopic images from lesional *and* non-lesional areas; alternatively, v) availability of both dermoscopic and LC-OCT images of lesional areas. Statistical comparisons were made using Student's t-test, with a significance threshold of $p < 0.05$.

Results: The study cohort comprised 20 patients (9 females, 11 males), with a mean age of 49.5 years (±15.1). Clinical and dermoscopic images from both lesional and non-lesional skin were available for 15 patients. The remaining five subjects, although lacking dermoscopic imaging of non-lesional skin, had undergone LC-OCT examination of facial vitiligo lesions. No statistically significant differences emerged between male and female subgroups. Notably, yellow dots and follicular keratosis were significantly more frequent in lesional skin compared to unaffected areas ($p < 0.05$). LC-OCT showed prominent follicular structures, dilated vascular superficial plexuses, focal blurring of the dermal-epidermal junction and hyper-reflective spots in the upper dermis.

Conclusion: These findings reinforce the link between pilosebaceous unit alterations and vitiligo. The increased presence of yellow dots and follicular keratosis in lesional areas suggests their potential as markers for disease activity. Further investigations are warranted to assess their diagnostic and prognostic utility in monitoring disease course and treatment efficacy. LC-OCT appears to be a promising, non-invasive modality for detecting subclinical skin changes in vitiligo, though larger patient cohorts are needed to validate its added value alongside dermoscopy in clinical practice.

Abstract N°: 3285

The role of phototherapy for the treatment of segmental vitiligo in the era of janus kinase inhibitors

Maria Cristina Fialho[1], Bruno Duarte[1], Miguel Coelho[1]

[1]Santo António dos Capuchos Hospital, Dermatology and venereology department, Lisbon, Portugal

Introduction:

Segmental vitiligo (SV) accounts for a minority of vitiligo cases and occurs most frequently in children. This subtype of vitiligo is particularly resistant to conventional treatment options, including topical and systemic corticosteroids, topical calcineurin inhibitors (TCI), phototherapy and surgical treatments. Janus kinase (JAK) inhibitors are the new treatment options being explored as topical and systemic agents for the treatment of vitiligo, with promising results in non-segmental vitiligo (NSV).

Case report:

We present the case of a 7-year-old boy with no known comorbidities, who had a 5 year-long history of depigmented macules and patches affecting the right hemiface (temporal, periorbital, malar, perioral, preauricular and mandibular regions) and neck, associated with poliosis of the homolateral eyelashes and a portion of the hair, which was compatible with SV. Continuous application of TCI associated with cyclosporine (3mg/kg/day) had been tried for one year, with little response. The condition had a severe impact on his quality of life and social relationships. Therapeutic options were discussed, and phototherapy with narrow-band (nb) UVB - 2 times per week with increases of 10% of the dose - was started and associated with topical tacrolimus, while cyclosporine was stopped. Evaluation of treatment progress was carried out every 3 months, with progressive repigmentation of the patches following a perifollicular pattern. After 6 months of phototherapy, there was significant repigmentation of the affected areas, with no adverse events to report.

Conclusion:

Even in the era of JAK inhibitors, SV is seldomly represented in case reports and clinical trials. Topical JAK inhibitor ruxolitinib has been approved for topical use in NSV and a phase 2 trial with oral ritlecitinib only included NSV patients. Therefore, SV remains an orphan of majorly effective treatment options. Nonetheless, this represents a case of SV with a satisfactory response to nb-UVB in association with TCI. Classical treatment options remain valid and provide good results for some patients, therefore, they should not be disregarded even with the rise of innovative therapies.

Abstract N°: 3290

Efficacy of a 2-MNG-Containing Serum and Sunscreen Regimen on Improving Facial-Dyschromia in Skin of Color Women

Hawasatu Dumbuya*[1], Katharine Podimatis[1], Stephen Lynch[2], Andrew F. Alexis[3]

[1]La Roche-Posay, L'Oreal USA, New York, United States

[2]L'Oréal USA Research and Innovation, Clark, United States

[3]Weill Cornell Medicine, Department of Dermatology, New York, United States

Introduction & Objectives:

Skin of color (SOCs) populations are more susceptible to experiencing dyschromia, leading to uneven skin tone, ashy skin and blotchiness. Despite skin discoloration being considered as one of the top dermatological concerns for SOCs, they remain under-represented in clinical trials focused on skin-aging prevention and photoprotection. Here, we evaluated the efficacy of a serum and sunscreen regimen containing 2-MNG, an ingredient that quenches melanin precursors, on improving facial dyschromia and quality of life in women of color.

Materials & Methods:

Sixty (60) female subjects completed study from diverse racial/ethnic backgrounds, aged 25-70 years old with skin phototypes IV-VI, and presenting with mild to moderate uneven skin tone, hyperpigmentation, and skin roughness. After completing a 1-week washout period, all subjects used a 2-MNG-containing serum and sunscreen SPF30 regimen for 12 weeks. Evaluations included clinical assessments, quality-of-life questionnaires, plus imaging at several time points.

Results:

After 2 weeks of using the products regimen (serum & SPF30), dermatological assessments showed significant improvement in skin brightness and radiance, plus overall skin appearance in all subjects. At week 4, we observed significant reduction in hyperpigmentation, dyschromia, plus photodamage overtime. Interestingly, expert grading and imaging also demonstrated significant improvement in skin smoothness, fine lines, and pores appearances. By week 12, all subjects perceived a significant improvement in quality-of-life: from feeling less unattractive to decreasing the use of camouflage to cover up skin discoloration-related concerns.

Conclusion:

In summary, our results demonstrate that a 2-MNG-containing serum and sunscreen SPF30 regimen, can effectively reduce the appearance of facial dyschromia-related concerns in skin of color individuals. The improvement in overall quality-of-life experienced by clinical participants after using product regimen overtime may help support clinicians on skin_aging prevention and photoprotection strateges to consider for all patients, particularly for patients of color.

Abstract N°: 3309

Bridging Gaps in Hyperpigmentation Treatment: The Global Consensus on the Management of Melanin Hyperpigmentation Disorders

Thierry Passeron*[1], Seemal R Desai[2], Marwa Abdallah[3], Firas Al-Niaimi[4], Ncoza Dlova[5], Pearl Grimes[6], Jorge Ocampo-Candiani[7], Rashmi Sarkar[8], Flora Xiang[9], Hélio Miot[10]

[1]University Côte D'Azur, CHU Nice, Department of Dermatology, Nice, France
[2]Innovative Dermatology, Plano, United States
[3]Ain Shams University, Dermatology, Andrology, and Venereology Department, Cairo, Egypt
[4]Aalborg University Hospital, Aalborg, Denmark
[5]University of KwaZulu-Natal, Department of Dermatology, Nelson R. Mandela School of Medicine,, Durban, South Africa
[6]Vitiligo & Pigmentation Institute of Southern California, Los Angeles, United States
[7]Universidad Autónoma de Nuevo León, Dermatology Department, Hospital Universitario "Dr. José Eleuterio González,", Monterrey, Mexico
[8]LHMC and Associated KSCH and SSK Hospital, Department of Dermatology, New Delhi, India
[9]Huashan Hospital, Fudan University, Department of Dermatology, Shanghai, China
[10]FMB-Unesp, Departamento de Dermatología, Botucatu, Brazil

Introduction & Objectives:

Cutaneous melanin hyperpigmentation disorders, including melasma, post-inflammatory hyperpigmentation (PIH), periorbital hyperpigmentation (POH) and acquired dermal macular hyperpigmentation (ADMH), are prevalent skin concerns worldwide, significantly impacting quality of life. Despite the high prevalence, there is a lack of unified global guidelines for the management of these disorders, necessitating a comprehensive approach that considers variations in skin types and treatment availability. The aim of this initiative therefore was to establish an evidence-based framework for the management of melanin hyperpigmentation disorders through a global consensus involving experts from diverse regions.

Materials & Methods:

From September 2024 to April 2025, ten experts from nine countries convened virtually and in person to develop consensus statements and recommendations on the management of selected hyperpigmentation disorders. A modified Delphi method was employed to achieve agreement on key statements and recommendations, with a threshold of 75% consensus required for inclusion. The discussions focused on eight key topics: photoprotection, melasma, PIH, POH, ADMH, hyperpigmentary chronic photo damages, hyperpigmentation of the folds, and freckles/ephelides.

Results:

Consensus statements and treatment recommendations were formulated across the eight key topics, highlighting the following findings:

- Photoprotection: Essential for all hyperpigmentation disorders, with recommendations for broad-spectrum sunscreens that protect against UVB, UVA, and high-energy visible light (HEVL). Sunscreens should include anti-inflammatory and antioxidant additives.

- Melasma: A multi-faceted approach is recommended, combining topical agents, oral medications, and procedural therapies, with a strong emphasis on consistent photoprotection. A treatment algorithm was derived to guide treatment choices.
- PIH: Topical therapies are the first-line treatment, with procedural options considered in resistant cases. Pre-treatment with skin-lightening agents is advised before procedures to enhance efficacy and prevent PIH.
- Periorbital Hyperpigmentation: Diagnostic tools such as eyelid stretch tests and dermoscopy are recommended. Treatment varies based on the underlying cause, with specific agents suggested for different types of POH.
- ADMH: A unified nomenclature for related disorders is proposed to standardize diagnosis and management, with recommendations for allergen testing and pre-treatment before procedures.
- Chronic Photo Damage: Topical retinoids, laser therapies and lightening agents are recommended for managing pigmentation changes due to chronic sun exposure, with an emphasis on prevention through photoprotection.
- Hyperpigmentation of the Folds: Treatment primarily involves depigmenting agents, with a focus on avoiding irritants and allergens.
- Freckles/Ephelides: Treatment options include laser therapies and topical agents, with maintenance strategies emphasizing photoprotection.

Conclusion:

This global consensus provides a comprehensive framework for the management of melanin hyperpigmentation disorders, addressing regional differences and providing clear treatment recommendations for dermatologists worldwide.

Abstract N°: 3355

Qualitative Development of Items to Assess Noticeability and Sun Sensitivity for Patients with Non-Segmental Vitiligo

David Rosmarin*[1], Ahmed Soliman[2], Dana DiBenedetti[3], Amy Greenblatt[3], Rohini Sen[2], Stavonnie Patterson[2], Khaled Ezzedine[4, 5]

[1]Department of Dermatology, Indiana University School of Medicine, Indianapolis, United States
[2]AbbVie Inc., Mettawa, United States
[3]RTI Health Solutions, Durham, United States
[4]Department of Dermatology, Henri Mondor Hospital, Creteil, France
[5]Department of Dermatology, Multicultural Dermatology Center, Henry Ford Health, Detroit, United States

Introduction & Objectives: Non-segmental vitiligo (NSV) is a chronic skin disorder that causes progressive, bilateral skin depigmentation and can impact health-related quality of life and psychosocial health. Vitiligo noticeability and sun sensitivity are commonly reported symptoms of NSV. As new NSV treatments emerge, measures assessing patient-valued treatment outcomes and meaningful changes are warranted. Thus, patient-reported outcome (PRO) items assessing vitiligo noticeability and sun sensitivity were developed. This study aimed to confirm the validity and interpretability of these items, refine them as needed, and explore meaningful change prior to their use in clinical trials.

Materials & Methods: Initial drafts of items were based on literature reviews, patient interviews, and key opinion leader input and revised after Food and Drug Administration review. Revised items were then tested in iterative hybrid concept confirmation and cognitive debriefing interviews with adults (≥18 years) and adolescents (12 to ≤17 years) with confirmed NSV. Interviews included open-ended questions on participants' experiences with NSV, followed by targeted probes on the importance of key concepts (e.g., vitiligo noticeability, sun sensitivity), item interpretability and clarity (e.g., how participants understood each item and selected item responses), and meaningful change.

Results: Interviews with 37 individuals (24 adults and 13 adolescents) were conducted. Among adults, the mean (standard deviation) age was 47.4 (10.9) years; 62.5% were female, 50% were White, 54.2% were Fitzpatrick skin type I–III, and 45.8% were type IV–VI. Among adolescents, mean age was 14.8 (1.7) years; 46.2% were female, 38.5% were White, 61.5% were Fitzpatrick skin type I–III, and 38.5% were type IV–VI. Most participants with facial vitiligo (26/30; 86.7%) and body vitiligo (33/35; 94.3%) reported it was noticeable to them and/or to others. The most commonly reported factor contributing to noticeability was the color of depigmented skin compared with unaffected skin. Approximately 73% (27/37) of participants stated noticeability was an important aspect of their vitiligo. Similarly, sun sensitivity—redness, warmth/heat, irritation, tenderness, and sunburn—was reported by 62.2% (23/37) of participants, among whom most (17/23; 73.9%) noted this symptom was important.

After the first round of interviews (n = 24; 16 adults, 8 adolescents), the items were further revised based on participant feedback. Notably, item wording was simplified, and each item was split to separately assess facial vitiligo and body vitiligo. The revised items were reported as interpretable and clear in the second round of interviews (n = 9; 8 adults, 1 adolescent). Simplifying the wording and separating the items for the face and body also facilitated participants' ability to respond. A 1-point change on each item was considered meaningful to most participants.

Conclusion: These findings highlight the importance of vitiligo noticeability and sun sensitivity among patients

with NSV. The revised noticeability and sun sensitivity items, which separately assess the face and body, address an unmet need for a more comprehensive assessment of these concepts in people with NSV.

Abstract N°: 3385

Cohort study of vitiligo activity markers

Emmanuel Mahe[1], Sergey Skrek[1], Denis Zaslavsky[2], Anastasia Yunovidova[3], Dana Mashuka[3], Alina Uzkaya[4], Anastasia Belolipetskaya[2], Arij Danden*[5], Vitalina Perevalova[2]

[1]centre hospitalier victor dupouy, Argenteuil, France

[2]Saint Petersburg State Pediatric Medical University, Saint Petersburg, Russian Federation

[3]LLC “French clinic of skin diseases”, Saint Petersburg, Russian Federation

[4]Federal State Budgetary Institution “V.A. Almazov National Medical Research Center” of the Ministry of Health of the Russian Federation, Saint Petersburg, Russian Federation

[5]Saint Petersburg State Pediatric Medical University, Dermatology department, Saint Petersburg, Russian Federation

Introduction & Objectives:

The treatment of progressive vitiligo remains a challenging issue even with the emergence of JAK inhibitors or microneedling. Given that the choice of therapeutic strategy largely depends on the stage of the disease, determining vitiligo activity is fundamentally important. In cases with widespread lesions, clinical analysis is often uninformative; thus, the search for new markers becomes one of the pressing tasks in practical dermatology. Considering the risk of developing the Koebner phenomenon, identifying predictors of progressive vitiligo in peripheral skin is more appealing and safer. This article presents evidence of increased levels of CIRP and HMGB1 in progressive vitiligo.

Materials & Methods:

The study included patients with acute and chronic phases of vitiligo, as well as a comparison group. Among 39 patients, there were 20 men and 19 women. The first group consisted of 14 patients with progressive vitiligo, whose diagnosis was confirmed histologically and immunohistochemically. The second group included 13 patients with chronic vitiligo, while the control group comprised 12 volunteers. All three groups underwent diagnostic biopsy from a depigmentation focus, where alongside histological symptoms, levels of chemokines were assessed. Additionally, all patients had blood tests to determine eCIRP and

HMGB1 levels using the ELISA method.

The assessment of progressive vitiligo was based on anamnesis data specifically, the appearance of new depigmented areas within the last two months and signs of acute inflammation in histological material from the depigmentation focus such as spongiosis, vacuolization of basal layer cells, and dense cellular infiltrate as well as increased expression of CXC, CXCL9, and NLRP1.

Results:

Analysis of study results revealed a direct correlation between the acute phase of the disease and increased levels of HMGB1 and eCIRP. Elevated levels of HMGB1 and eCIRP were significantly found in 11 patients (78.57%) from the first group, while in the second and third groups these indicators were higher in 1 patient (7.69%) and 2 patients (16.67%), respectively.

Histological signs of acute or subacute inflammation in the skin, along with increased expression of CXC, CXCL9, and NLRP1 were noted in 13 patients from the first group (92.86%), 4 patients from the second group, and were

not observed among control group patients.

A large multicenter study could provide more definitive statements regarding their sensitivity and specificity.

Conclusion:

Thus, HMGB1 and eCIRP can be used for the early diagnosis of progressive vitiligo.

Abstract N°: 3433

Prevalence and Clinical Characteristics of Vitiligo-Associated Hearing Loss Among Patients Enrolled in a Phase 2 Clinical Trial of Povorcitinib

Michael DePietro[1], Leandro L. Santos*[1], Zhenyi Xue[1], Kurt Brown[1], Jason A. Brant[2, 3]

[1]Incyte Corporation, Wilmington, DE, United States

[2]William S. Middleton Memorial VA Medical Center, Madison, WI, United States

[3]Department of Otorhinolaryngology, University of Wisconsin, Madison, WI, United States

Introduction & Objectives: Patients with vitiligo reportedly have an increased risk of sensorineural hearing loss (SNHL), driven by the loss of extracutaneous melanocytes in the inner ear. This analysis aimed to evaluate the prevalence of hearing loss in patients with vitiligo in a phase 2 clinical trial of povorcitinib and to examine their associated demographics and clinical characteristics.

Materials & Methods: 171 patients with nonsegmental vitiligo covering ≥0.5% facial and ≥8% total body surface area (F-BSA and T-BSA) were randomized 1:1:1:1 to once-daily oral povorcitinib 15, 45, or 75 mg or placebo for 24 weeks; subsequently, patients received povorcitinib 45 or 75 mg for an additional 28 weeks. SNHL was defined as a bone-conduction threshold ≥25 dB in either ear and was assessed using all-frequencies average (AFA; 250, 500, 1000, 2000, 3000, 4000, 6000, and 8000 Hz), standard 4-frequency pure-tone average (PTA; 500, 1000, 2000, and 4000 Hz), and high-frequencies average (HFA; 2000, 3000, 4000, 6000, and 8000 Hz).

Results: 162 patients were assessed for SNHL. Baseline SNHL prevalence was AFA, 10.5% (bilateral, 8.0%; unilateral, 2.5%); PTA, 11.7% (bilateral, 5.6%; unilateral, 6.2%); HFA, 14.2% (bilateral, 10.5%; unilateral, 3.7%).

A larger proportion of patients with vs without SNHL were older and had longer disease duration. There were no notable differences regarding the presence of other autoimmune diseases or the use of previous vitiligo therapy.

Following up to 52 weeks of povorcitinib treatment, mean percentage change from baseline in bone-conduction hearing threshold at Week 52 (negative values indicating improvement) for right and left ears were AFA, –16.1% and –18.7%; PTA, –7.2% and –13.9%; HFA, –12.6% and –11.0%; respectively.

Conclusion: SNHL was common in this patient population. Physicians treating vitiligo should consider conducting routine hearing assessments for early recognition and management of hearing loss. Changes in hearing with povorcitinib treatment need to be confirmed in larger patient populations.

Abstract N°: 3434

An Open-Label, Phase 2, Safety and Efficacy Study of Ruxolitinib Cream in Patients With Genital Vitiligo

Thierry Passeron*[1, 2], Maryam Shayesteh Alam[3], Julien Seneschal[4], Khaled Ezzedine[5], Jorge Garcia-Zuazaga[6], Maxwell Sauder[7, 8], Tianyi Liu[9], Diana Stefani-Hunyady[9], Deanna Kornacki[9], Melinda Gooderham[8, 10, 11]

[1]Centre Hospitalier Universitaire de Nice, Université Côte d'Azur, Nice, France
[2]INSERM U1065, C3M, Université Côte d'Azur, Nice, France
[3]SimcoDerm Medical & Surgical Dermatology Centre, Barrie, ON, Canada
[4]Department of Dermatology and Pediatric Dermatology, National Reference Center for Rare Skin Disorders, Hôpital Saint-André, CNRS, UMR-5164, ImmunoConcEpT, F-33000, Bordeaux, France
[5]Henri Mondor University Hospital and Université Paris-Est Créteil Val de Marne, Paris, France
[6]Apex Clinical Research Center, Mayfield Heights, OH, United States
[7]Division of Dermatology, Department of Medicine, University of Toronto, Toronto, ON, Canada
[8]Probity Medical Research, Waterloo, ON, Canada
[9]Incyte Corporation, Wilmington, DE, United States
[10]SKiN Centre for Dermatology, Peterborough, ON, Canada
[11]Queen's University, Kingston, ON, Canada

Introduction & Objectives: Ruxolitinib cream is approved for repigmentation of nonsegmental vitiligo in patients ≥12 years old. Up to 50% of patients may experience genital involvement, which can negatively affect quality of life (QoL). This study evaluated efficacy and safety of ruxolitinib cream monotherapy in patients with genital vitiligo.

Materials & Methods: This open-label phase 2 study (NCT05750823) of ruxolitinib cream treatment for genital vitiligo was conducted in North America and France and included patients ≥18 years old with nonsegmental vitiligo covering ≤10% total body surface area (BSA) and ≥0.25% genital involvement (with ≥1 genital lesion of ≥0.1% BSA). Patients applied 1.5% ruxolitinib cream twice daily for 48 weeks. The primary endpoint was percentage achieving a self-reported genital Vitiligo Noticeability Scale (VNS) score of 4/5 (ie, a lot less or no longer noticeable) at Week 48. Patient-reported outcomes included percentage reporting Genital and Total Patient Global Impression of Change (G-PaGIC/T-PaGIC) response (ie, much or very much improved), change from baseline (CFB) in Vitiligo Impact Patient scale (VIPs), and CFB in the Patient-Reported Outcomes Measurement Information System (PROMIS) Sexual Function Screener. Clinical outcomes included CFB in genital BSA, CFB in Genital/Total Vitiligo Area Scoring Index (G-VASI/T-VASI), and percentage achieving ≥50/75/90% reduction from baseline in T-VASI (T-VASI50/75/90). Safety was also assessed.

Results: 49 patients were enrolled (median [range] age, 40.0 [21–75] years; genital BSA, 0.6% [0.3%–2.0%]; male, 59.2%; Fitzpatrick skin type IV–VI, 51.0%); 10 patients discontinued treatment, most commonly due to withdrawal by patient (n=7). Among 37 patients with evaluable data at Week 48, 27.0% achieved genital VNS 4/5. G-PaGIC and T-PaGIC responses were reported by 24.3% and 48.6% of patients, respectively. Patients reported QoL improvements per VIPs total score, with –22.5% mean percentage CFB at Week 48; patients with skin types IV–VI vs I–III had greater QoL improvement (–28.7% vs –16.3%). The PROMIS Sexual Function Screener showed similar sexual activity throughout the study, including percentage of patients in sexual relationships (baseline vs Week 48, 75.7% vs 71.0%), sexually active in the past 30 days (any, 86.5% vs 83.9%; with a partner, 73.0% vs 74.2%), and wanting future sexual activity with a partner (83.8% vs 87.1%). Most common reasons for lack of sexual activity were not having a partner and not being interested in sexual activity. Genital BSA mean percentage CFB was –

21.1% at Week 48. Mean percentage CFB was similar for G-VASI (−35.0%) and T-VASI (−31.8%) at Week 48, following a similar pattern of response throughout. T VASI50 (35.1%), T-VASI75 (16.2%), and T-VASI90 (8.1%) responses were observed at Week 48. Treatment-emergent adverse events (TEAEs) occurred in 38.8% (19/49), most commonly application site pain, cough, and nasopharyngitis (n=2 each). Serious adverse events occurred in 2.0% (1/49; SAE was substance-induced psychotic disorder [not treatment related]). No patients discontinued due to a TEAE, and there were no deaths.

Conclusion: Ruxolitinib cream was well tolerated and promoted genital repigmentation consistent with total body improvements through 48 weeks of treatment. Improvements in VIPs scores highlight the meaningful impact of repigmentation in this difficult-to-treat body region, which has significant QoL implications.

EADV Congress 2025, PARIS
17 SEPTEMBER - 20 SEPTEMBER 2025
POWERED BY M-ANAGE.COM

Abstract N°: 3461

Characterization of Vitiligo and Repigmentation Response by Lesion Extent and Distribution: Subgroup Analyses From the Ruxolitinib Cream Phase 2 TRuE-V Mechanism of Action Study

Thierry Passeron*[1, 2], Mark Lebwohl[3], Maryam Shayesteh Alam[4], Jennifer Beecker[5], Anand K. Ganesan[6], Angelina Volkova[7], Haobo Ren[7], Grace Wong[7]

[1]Centre Hospitalier Universitaire de Nice, Université Côte d'Azur, Nice, France
[2]INSERM U1065, C3M, Université Côte d'Azur, Nice, France
[3]Icahn School of Medicine at Mount Sinai, New York, NY, United States
[4]SimcoDerm Medical & Surgical Dermatology Centre, Barrie, ON, Canada
[5]JBR Research Inc., Ottawa, ON,, Canada
[6]University of California, Irvine, CA, United States
[7]Incyte Corporation, Wilmington, DE, United States

Introduction & Objectives: Vitiligo is an autoimmune disease that causes skin depigmentation. Ruxolitinib cream is approved for repigmentation of nonsegmental vitiligo in patients (pts) ≥12 years old. We characterized vitiligo and evaluated repigmentation response to ruxolitinib cream in pts with total body surface area (BSA) ≤20% and >20%.

Materials & Methods: The phase 2, randomized, double-blind, vehicle-controlled TRuE-V Mechanism of Action study (NCT04896385) enrolled pts ≥18 years old with nonsegmental vitiligo covering ≤50% total BSA, including ≥0.5% facial BSA, and ≥3% nonfacial BSA. Treatment was limited to areas ≤20% total BSA. Pts were randomized 2:1 to 1.5% ruxolitinib cream or vehicle twice daily for 24 weeks, after which all pts could apply open-label 1.5% ruxolitinib cream twice daily for a further 28 weeks. Post hoc analyses included assessments of Vitiligo Area Scoring Index (VASI) response, VASI change from baseline (CFB), and C-X-C motif chemokine ligand (CXCL)10 expression.

Results: The 60 randomized pts had a median (range) age of 45.5 (19–68) years and BSA of 8.8% (3.9%–48.5%). At baseline, fewer pts with BSA ≤20% (n=48) had foot (66.6%), hand (81.3%), and lower limb (81.3%) involvement vs those with BSA >20% (n=12; foot [91.7%], hand [91.7%], lower limb [100%]). Among 41 pts who applied ruxolitinib cream throughout, proportions achieving ≥75% improvement in facial VASI (F-VASI75) at Weeks 24 and 52 were similar regardless of age, sex, disease duration, or disease status. There was, however, larger variation in F-VASI75 response at Week 24 among pts with BSA ≤20% vs >20% despite median baseline F-VASI scores being similar (1.0 vs 1.1), with 33.3% vs 60.0% achieving F-VASI75, respectively; at Week 52, F-VASI75 responses were more balanced (69.6% vs 75.0%). Among pts with BSA ≤20% vs >20%, mean percentage CFB in VASI scores tracked similarly across body regions through 52 weeks of treatment. Mean percentage CFB in VASI scores for pts with BSA ≤20% vs >20% were: total body, −22.4% vs −17.9% at Week 24 and −40.4% vs −33.1% at Week 52; face, −47.9% vs −52.3% at Week 24 and −70.4% vs −84.5% at Week 52. Throughout 52 weeks, pts with BSA ≤20% had greater improvements in VASI scores for the trunk and smaller improvements in VASI scores for the hands and feet vs pts with BSA >20%. VASI improvements for the head/neck (excluding face), upper limb, and lower limb were similar for pts with BSA ≤20% vs >20%, with some variation by study visit.

CXCL10 analysis showed strong trends suggesting baseline differences between pts with BSA ≤20% vs >20%. Baseline CXCL10 mRNA levels in lesional skin were lower in pts with BSA ≤20% (median, 1.04 $2^{-\Delta\Delta Ct}$ vs 2.68 $2^{-\Delta\Delta Ct}$ with BSA >20%; $P<0.05$); there were no differences in nonlesional skin CXCL10 levels. Serum CXCL10 protein analysis also showed nominal differences between BSA subgroups at baseline; following ruxolitinib cream

treatment, serum CXCL10 protein levels were reduced at Week 24 in both BSA subgroups.

Conclusion: Similar levels of repigmentation were achieved regardless of age, sex, disease duration, or disease status. Pts with BSA ≤20% and >20% had similar improvements in VASI scores through 52 weeks, despite limiting treatment to areas ≤20% total BSA and differences in body region involvement and lesional skin CXCL10 mRNA levels. These findings highlight the broad efficacy of ruxolitinib cream for vitiligo repigmentation, including in pts with extensive disease involvement who treated localized areas.

Abstract N°: 3473

Efficacy and Safety of Ruxolitinib Cream Combined With NB-UVB Phototherapy for Treatment of Vitiligo

Amit G Pandya*[1, 2], Charles W. Lynde[3], Maryam Shayesteh Alam[4], Ira H. Thorla[5], Katherine Reed[6], Lawrence J. Green[7], Babak Soltanalizadeh[8], Diana Stefani-Hunyady[8], Deanna Kornacki[8], Mark S. Amster[9]

[1]Palo Alto Foundation Medical Group, Sunnyvale, CA, United States
[2]University of Texas Southwestern Medical Center, Dallas, TX, United States
[3]Lynde Institute for Dermatology, Markham, ON, Canada
[4]SimcoDerm Medical & Surgical Dermatology Centre, Barrie, ON, Canada
[5]DelRicht Research, Baton Rouge, LA, United States
[6]Dermatology Specialists of Spokane, Spokane, WA, United States
[7]Department of Dermatology, George Washington University School of Medicine, Washington, DC, United States
[8]Incyte Corporation, Wilmington, DE, United States
[9]MetroBoston Clinical Partners LLC, Brighton, MA, United States

Introduction & Objectives: Elective addition of narrow-band UVB (NB-UVB) phototherapy after 52 weeks of ruxolitinib cream monotherapy was well tolerated and improved repigmentation in 19 patients with vitiligo in a phase 2 study (NCT03099304). The objective of this exploratory study (NCT05247489) was to evaluate combination NB-UVB/ruxolitinib cream therapy in patients with nonsegmental vitiligo (NSV) who did not achieve ≥25% improvement in total Vitiligo Area Scoring Index (VASI; T-VASI25) at Week 12 with ruxolitinib cream.

Materials & Methods: Patients with NSV (≥12 years; ≤10% total affected body surface area) applied twice-daily 1.5% ruxolitinib cream for 12 weeks. At Week 12, patients achieving T-VASI25 continued monotherapy, while patients with <T-VASI25 added NB-UVB (3 times/week) through Week 48.

Results: Among 55 patients of median (range) age 51.0 (15–83) years, 50.9% (28/55) were male and 63.6% (35/55) had Fitzpatrick skin types I–III. Mean (SD) baseline T-VASI/F-VASI scores were 6.77 (2.11)/0.94 (0.49). At Week 12, 11 patients achieved T-VASI25 (mean [SD] T-VASI/F-VASI percentage change from baseline [%CFB], −29.8% [24.5%]/−54.6% [34.3%]) and improved further with continued monotherapy through Week 48 (T-VASI/F-VASI %CFB, −69.8% [18.5%]/−90.7% [11.0%]). A total of 35 patients with <T-VASI25 at Week 12 (T-VASI/F-VASI %CFB, −7.9% [9.8%]/−32.4% [26.0%]) added NB-UVB and attained meaningful repigmentation at Week 48 (T-VASI/F-VASI %CFB, −50.4% [28.7%]/−85.6% [15.9%]). Among patients receiving combination therapy, Week 48 T-VASI50/75 and F-VASI75/90 responses were achieved by 57.7% (15/26)/19.2% (5/26) and 84.6% (22/26)/53.8% (14/26). Addition of NB-UVB did not impact ruxolitinib plasma concentrations. Treatment-emergent adverse events (TEAEs) occurred in 45.0% (9/20; including patients withdrawing before Week 12) with monotherapy and 60.0% (21/35) with combination. No serious TEAEs were treatment-related.

Conclusion: Patients with NSV who did not achieve T-VASI25 at Week 12 with ruxolitinib cream had meaningful body and facial repigmentation with combination NB-UVB through Week 48. No new safety concerns were identified.

Abstract N°: 3496

Bidirectional Association between Vitiligo and Melasma: A Large-Scale Population-Based Study

Shany Sherman*[1, 2], Hadar Duskin-Bitan[2], tamir agiv[3], danielle bar[3], lilach marom-haham[4], assi levi[5], daniel mimouni[6], Li-Chi Chen[7], john harris[8], jen barak levitt[9], Yochai Schonmann[10], arnon cohen[11], doron netzer[11]

[1]Rabin Medical Center, Petach Tikva, Israel
[2]Rabin Medical Center, Patah Tikva, Israel
[3]tel aviv university, faculty of medicine, Tel Aviv, Israel
[4]sheba medical center, Obstetrics and Gynecology, Ramat gan, Israel
[5]Rabin Medical Center, Dermatology, petach tikva, Israel
[6]Rabin Medical Center, Dermatology, Patah Tikva, Israel
[7]umass chan med school, Dermatology, Worcester, United States
[8]umass chan med school, Worcester, United States
[9]emek medical center, Dermatology, afula, Israel
[10]clalit health services, Department of Quality Measurements and Research, Tel Aviv, Israel
[11]clalit health services, Tel Aviv, Israel

Introduction & Objectives: The dual diagnosis of vitiligo and melasma has hardly been studied, and their association has not been investigated. We aimed to test the hypothesis of an independent bidirectional association between vitiligo and melasma.

Materials & Methods: A population-based study was conducted including 24,436 patients with vitiligo and 119,205 matched comparators. Both a retrospective cohort design and a nested case-control design were used, with calculation of adjusted hazard ratios (HRs) and odds ratios (ORs).

Results: The incidence of melasma per 1000 person-years was 1.38 (95% CI 1.22-1.54) in the vitiligo group and 0.88 (95% CI 0.84-0.96) in the comparison group. Patients with vitiligo had a 60% increased risk of developing melasma regardless of hormonal treatment, phototherapy, and thyroid disorders (adjusted HR, 1.58; 95% CI, 1.35-1.86). The prevalence of pre-existing** melasma was higher in patients with vitiligo than matched comparators (0.9% vs. 0.5%, *P*<0.001). Melasma was associated with a 30% increase in the odds of developing vitiligo (adjusted OR 1.32; 95% CI 1.12-1.55), regardless of hydroquinone treatment.

Conclusion: A bidirectional association between vitiligo and melasma was observed. Treatment strategies for individuals with a dual diagnosis warrant further investigation.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 3555

Macrophages heterogeneity and its clinical significance in Riehl's melanosis

Chen Wang[1], zhongyi xu[1], Chengfeng Zhang[1], Flora Xiang[1]

[1]Huashan Hospital, Dermatology, Shanghai, China

Introduction & Objectives: The phagocytosis of melanin granules by macrophages and the subsequent formation of melanophages are key histopathological features of Riehl's melanosis. However, the role and underlying mechanisms of macrophage activity in disease progression remain unclear. This study aimed to characterize the immune landscape of Riehl's melanosis and to elucidate the phenotypic and functional diversity of macrophage and melanophage subtypes.

Materials & Methods: We performed single-cell RNA sequencing on lesional skin samples from patients with Riehl's melanosis to map the immune microenvironment. Histological examinations were conducted using hematoxylin and eosin (H&E) staining along with immunofluorescence to determine the phenotype and distribution of infiltrating immune cells. In vitro functional assays, the changes in tyrosinase activity were detected by L-DOPA method, the changes in melanin content by sodium hydroxide method, and the expression of TYR, TRP-1 and MITF by western blot. Additionally, the impact of varying linoleic acid (LA) to α-linolenic acid (ALA) ratios on macrophage activation was evaluated by flow cytometry.**I**

Results: Our single-cell analysis identified seven distinct macrophage subpopulations (Fig.1). Among these, the *FOLR2*$^{+}$*CD206*$^{+}$ macrophages were found to potentially interact with melanocytes and T/NK cells (Fig.2). Histological data indicated that infiltrating macrophages predominantly localize in the dermal papillae, sites of melanin deposition and around the superficial capillary network (Fig.3). These cells exhibited a CD68^{+} CD86^{-} CD206^{+} phenotype, and their infiltration correlated positively with melanin deposition in the lesions of Riehl's melanosis (Fig.3-4). Functionally, M1-conditioned medium suppressed melanin synthesis in melanocytes, while M2-conditioned medium promoted it (Fig. 5), suggesting that cytokines secreted by M2-polarized macrophages enhance melanogenesis. Furthermore, macrophages were more prone to classical and alternative activation in a high LA/ALA ratio environment, whereas a low LA/ALA ratio favored a resting state (Fig.6).

Conclusion: Collectively, our findings indicate that macrophage infiltration and activation states are closely associated with the degree of pigmentation in Riehl's melanosis. These results suggest that specific macrophage subtypes, particularly the *FOLR2*$^{+}$*CD206*$^{+}$ population, may serve as valuable indicators for assessing pigmentation severity and prognosis in affected patients.

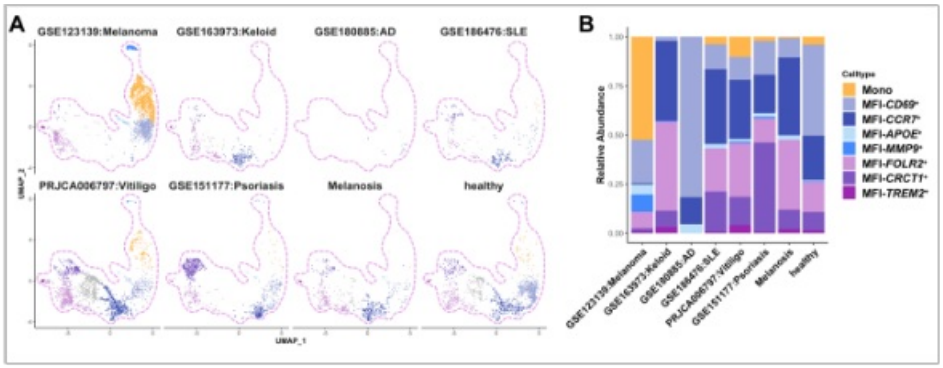


Fig1. Atlas of Macrophages in Riehl's Melanosis and Representative Skin Diseases

(A) UMAP dimensionality reduction plot showing macrophage subpopulations in different datasets.
(B) Bar chart displaying the relative proportions of macrophage subpopulations in different datasets. **

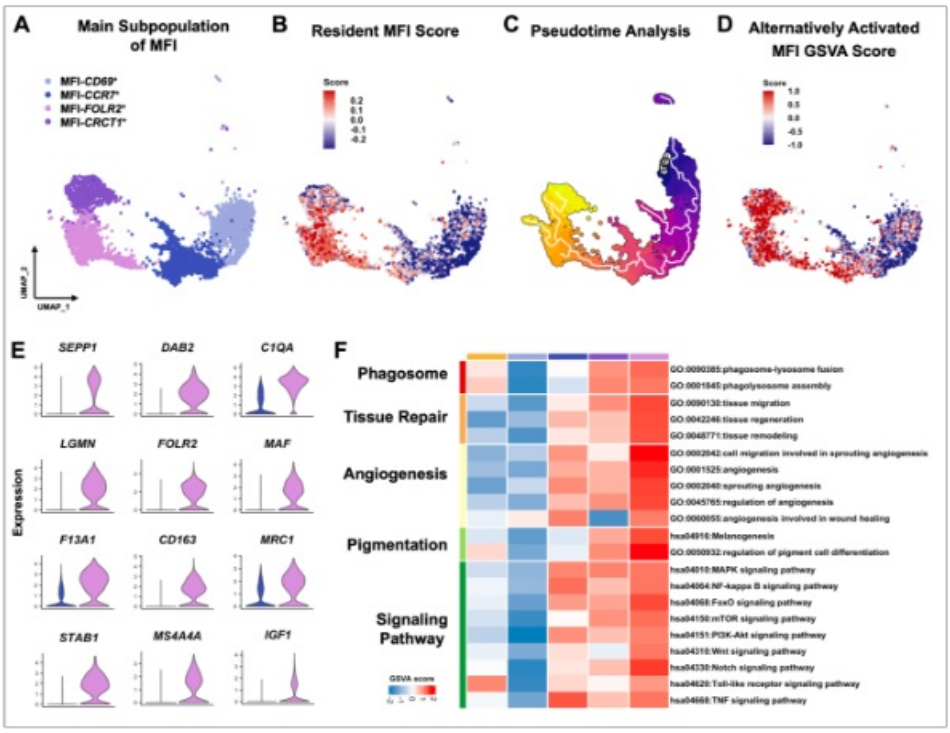


Fig2. Functional Characterization of FOLR2+ MRC1+ Macrophage Subpopulation

UMAP dimensionality reduction plot showing four major macrophage subpopulations: MFI-*CD69*+, MFI-*CCR7*+, MFI-*FOLR2*+, and MFI-*CRCT1*+.

(A) UMAP dimensionality reduction plot showing four major macrophage subpopulations: MFI-*CD69*$^+$, MFI-*CCR7*$^+$, MFI-*FOLR2*$^+$, and MFI-*CRCT1*$^+$.
(B) Tissue-resident macrophage scores of major macrophage subpopulations calculated using the GSVA algorithm.
(C) Cell trajectory map of monocyte-derived macrophages generated using the Monocle3 algorithm.
(D) Alternative pathway activation scores of major macrophage subpopulations assessed using the GSVA algorithm.
(E) Violin plot displaying characteristic gene expression in *FOLR2*$^+$ macrophages.
(F) Heatmap showing enriched GO and KEGG pathways in *FOLR2*$^+$ macrophages.

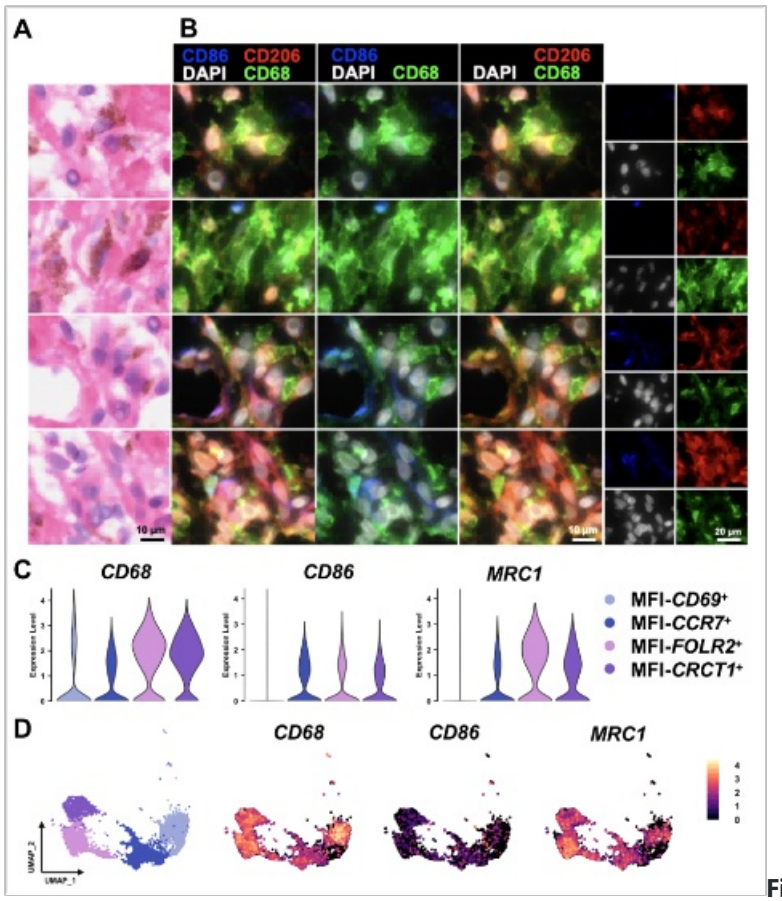


Fig3. Macrophages with Different Phenotypes in Tissue Sections of Riehl's Melanosis Patients

(A) H&E staining showing macrophage infiltration areas in skin lesions of Riehl's melanosis patients.
(B) Immunofluorescence staining of macrophage infiltration areas corresponding to (A), with CD68 (green), CD86 (blue), CD206 (red), and DAPI (white).
(C) Violin plot displaying the expression levels of CD68, CD86, and MRC1 in major macrophage subpopulations.
(D) UMAP dimensionality reduction plot showing the distribution of major macrophage subpopulations (left) and the expression levels of CD68, CD86, and MRC1 (right).

**

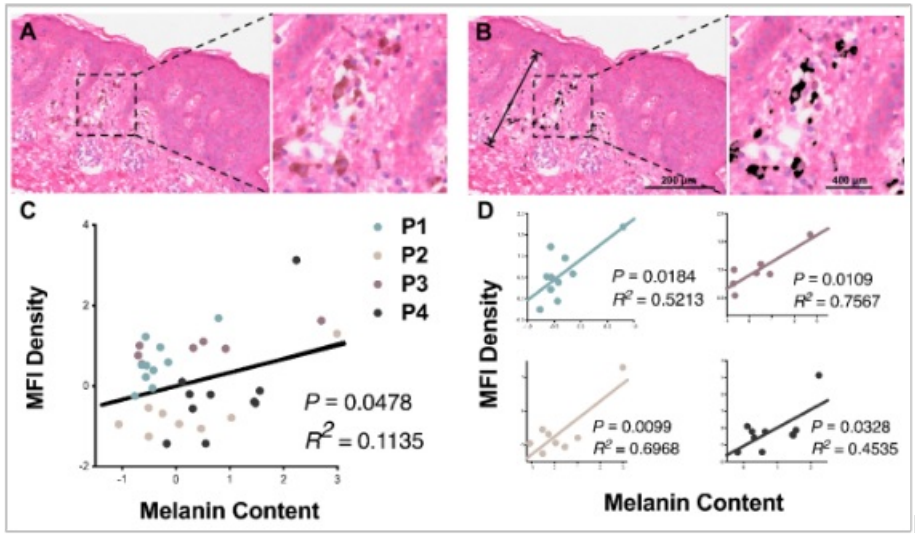


Fig4. Correlation Analysis of Local Infiltrating CD68+ CD206+ Macrophage Density with Melanin Deposition and Depth in Riehl's Melanosis Lesions

(A) H&E staining of tissue sections from Riehl's melanosis patients showing melanin deposition. The right image is a magnified view of the boxed region in the left image.
(B) Selection of melanin deposition areas (marked in black) and measurement of melanin deposition depth (indicated by double-arrow solid lines) in tissue sections of Riehl's melanosis patients. The right image is a magnified view of the boxed region in the left image.
(C, D) Scatter plots showing the correlation between $CD68^+$ $CD206^+$ macrophage infiltration density and melanin deposition in all patients (C) and in individual patients (D).

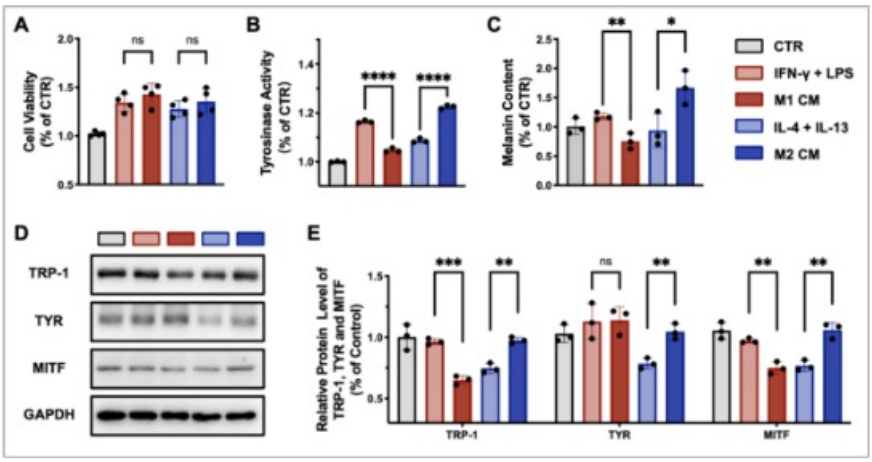


Fig5. Changes in Melanin Synthesis Ability of Melanocytes Induced by Conditioned Medium

(A) CCK-8 assay measuring melanocyte viability in different groups.
(B) DOPA assay measuring tyrosinase activity in melanocytes from different groups.
(C) NaOH assay quantifying melanin content in melanocytes from different groups.
(D-E) Representative Western blot bands (D) and statistical analysis (E) of TRP-1, TYR, and MITF protein expression levels in melanocytes across different groups.
CTR: Blank control group. IFN-γ + LPS: RPMI-1640 medium supplemented with 100 ng/mL LPS and 20 ng/mL IFN-γ.M1 CM: Conditioned medium from M1 macrophages.IL-4 + IL-13: RPMI-1640 medium supplemented with 20 ng/mL IL-4 and 10 ng/mL IL-13.M2 CM: Conditioned medium from M2 macrophages. All groups were induced at a 5% conditioned medium concentration for 48 hours. ns: Not significant. $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$, **** $P < 0.0001$. Results are presented as mean ± S.D. from three independent experiments.

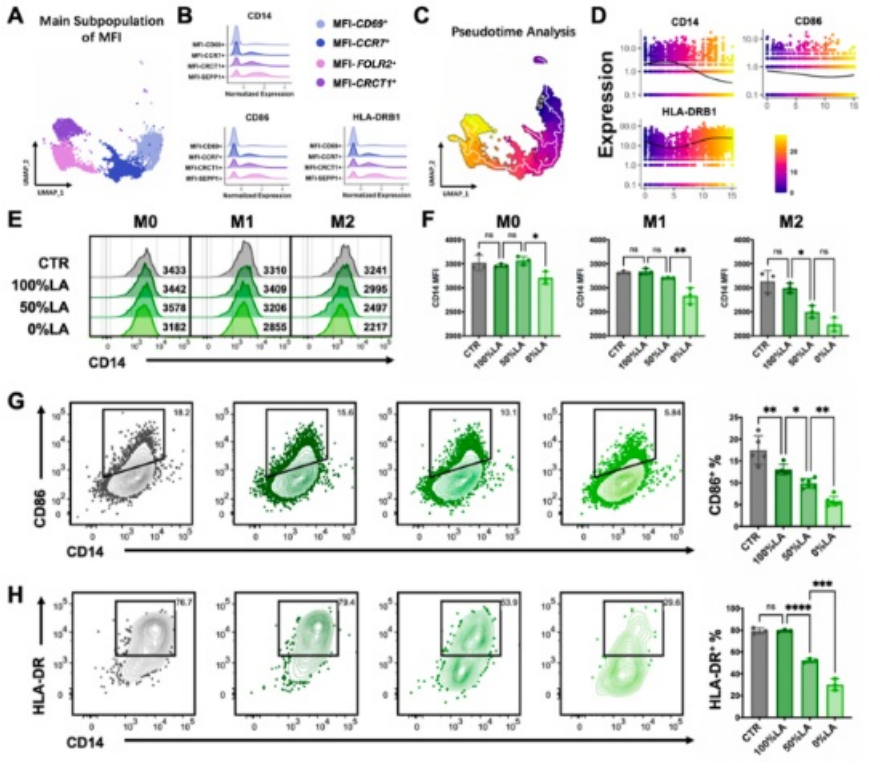


Fig6. Changes in CD14, CD86, and HLA-DR Expression Levels in THP-1 Monocyte-Macrophage Cell Line After Stimulation with Different LA/ALA Ratios

(A) UMAP dimensionality reduction plot showing subpopulations of locally infiltrating macrophages in Riehl's melanosis lesions.
(B) Ridge plot displaying the expression levels of CD14, CD86, and HLA-DRB1 in MFI-*CD69*$^{+}$, MFI-*CCR7*$^{+}$, MFI-*CRCT1*$^{+}$, and MFI-*FOLR2*$^{+}$ macrophage subpopulations.
(C) UMAP dimensionality reduction plot showing the cellular trajectory of locally infiltrating macrophage subpopulations in Riehl's melanosis lesions.
(D) Ridge plot displaying the changes in CD14, CD86, and HLA-DRB1 expression levels along the cellular trajectory.
(E, F) Changes in CD14 expression levels (E) and corresponding statistical analysis (F) in M0 (left), M1 (middle), and M2 (right) THP-1 monocyte-macrophage cell lines after pre-treatment with different LA/ALA ratios at a total concentration of 25 μM for 24 h.
(G) Changes in CD86 expression levels (left) and corresponding statistical analysis (right) in THP-1 monocyte-macrophage cell lines after treatment with different LA/ALA ratios at a total concentration of 25 μM for 24 h.
(H) Changes in HLA-DR expression levels (left) and corresponding statistical analysis (right) in THP-1 monocyte-macrophage cell lines after pre-treatment with different LA/ALA ratios at a total concentration of 25 μM for 24 h, followed by 20 ng/mL IFN-γ induction for 24 h.
CTR: Blank control group. 100% LA: 25 μM LA pre-treatment group. 50% LA: 12.5 μM LA + 12.5 μM ALA pre-treatment group. 0% LA: 25 μM ALA pre-treatment group. ns: Not significant. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$, **** $P < 0.0001$. Results are presented as mean ± S.D. from three independent experiments.

Abstract N°: 3601

Assessing the efficacy of Microneedling with Tranexamic acid as an adjuvant to conventional therapy in the treatment of melasma: A Split face Double blinded Randomised Control Trial

Nagbhushan Hegde*[1], Anupama Bains[2], Abhishek Bhardwaj[2], Saurabh Singh[2], anil budania[2], Suman Patra[2], Suman Sourabh[3]

[1]Father Muller Medical College,Mangaluru, Dermatology, Mangaluru, India
[2]All India Institute of Medical Sciences,Jodhpur, Dermatology, Jodhpur, India
[3]All India Institute of Medical Sciences,Jodhpur, Community Medicine, Jodhpur, India

Introduction

Melasma is a common acquired pigmentary disorder which is often challenging to treat. Few studies have assessed the role of microneedling with tranexamic acid (TXA) in the treatment of melasma. However, there is lack of blinded randomised control trials on the same and also its role as an adjuvant to conventional therapy in the treatment of melasma has not been studied to the best of our knowledge.

Objectives:

To evaluate the efficacy of microneedling with tranexamic acid as an adjuvant to conventional therapy in the treatment of melasma.

Materials & Methods:

This was a double-blinded, split-face Randomised control trial with 64 patients, one half of the face received microneedling with tranexamic acid (TXA), while the other half received microneedling with saline. The procedure was done 4 weekly for 3 sessions. Both sides were also treated with 2% hydroquinone cream and sunscreen. Melasma was assessed using Hemi-mMASI and Physician Global Assessment (PGA) scores at each visit. Dermoscopy, patient satisfaction, and MELASQOL scores were recorded at the start and end of the study.

Results:

Out of 51 patients (female to male ratio 1.2:1, mean age 29), the TXA group had a 48.5% reduction in Hemi-mMASI, compared to 43% in the placebo group ($p>0.05$). Dermoscopic evaluation showed non-significant reductions in pseudo-reticular, globular, arcuate, and perifollicular pigmentation patterns from baseline to 12 weeks. Visible telangiectasias increased significantly from 23.6% to 60.8% in both groups ($p<0.001$). MELASQOL scores dropped by 28% over 12 weeks. Side effects included erythema (29.4%), acne (3.9%), oedema (1.1%), and post-inflammatory hyperpigmentation (1.1%), which was similar in both the groups.

Conclusion:

Microneedling with Tranexamic acid did not provide any additional benefits over and above hydroquinone in our patients of melasma. Also, there was significant increase in the visible telangeictasias at the end of treatment in both the groups which may be due to microneedling or hydroquinone. Further studies with larger sample sizes and different treatment protocols are needed to evaluate the efficacy of microneedling with TXA as an adjuvant therapy in melasma.

Abstract N°: 3853

Assessment of Quality of Life in Vitiligo Patients: Correlation with Clinical Variants and Comparative Analysis of DLQI and VIS-22 Scales

SHAILJA VERMA[1], Sudip Das[1], Apeksha Singh[1]

[1]Calcutta National Medical College, Dermatology, Venereology and Leprosy, Kolkata, India

Introduction:

Vitiligo is a chronic and progressive disorder of skin pigmentation, marked by the appearance of depigmented macules and patches that may affect the skin, mucous membranes, or both. It can present at any age and affects individuals worldwide. The exact cause remains unclear, but several mechanisms have been proposed for melanocyte loss, including genetic predisposition, autoimmune reactions, oxidative stress, the release of inflammatory mediators, and the detachment of melanocytes from the epidermis.

In addition to its physical manifestations, vitiligo often carries a significant psychosocial burden. Patients must cope not only with the visible and persistent nature of the condition but also with the emotional, social, and financial challenges it can impose.

Objectives :

1.To correlate demographic and clinical variants of vitiligo with quality of life.

2.To compare DLQI and VIS22 scales for assessment of quality of life.

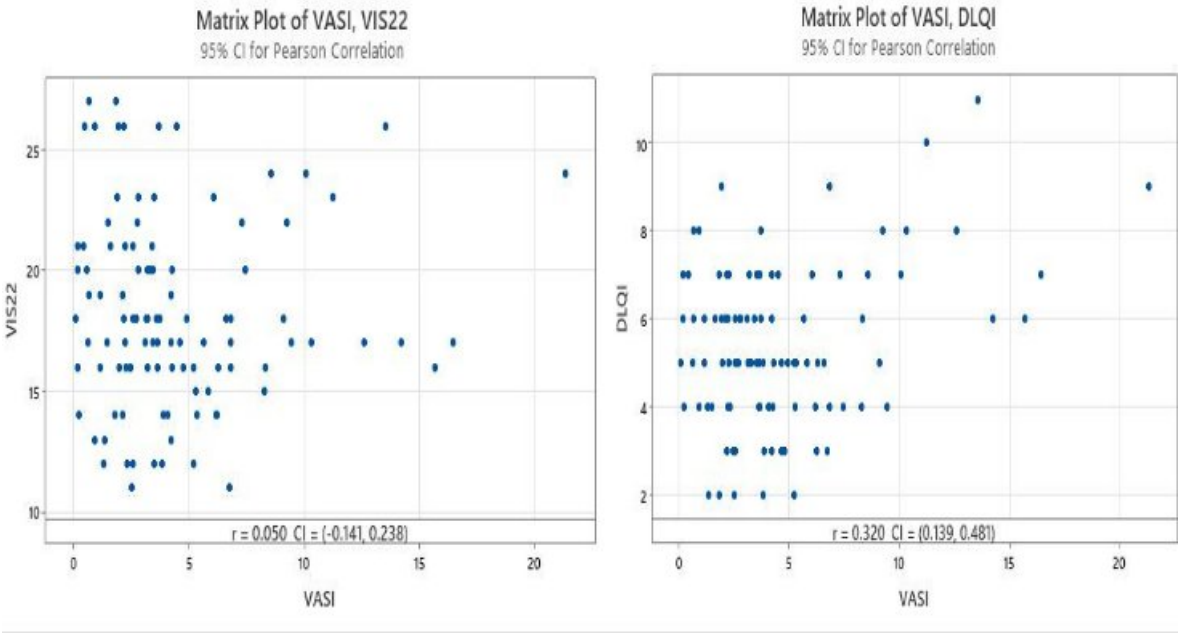
Materials & Methods:

This institutional, cross-sectional, analytical study was conducted in the Dermatology outpatient department using a structured questionnaire. It included all consenting vitiligo patients aged above 16 years attending the OPD. Patients with intellectual disabilities, mental illnesses, or concomitant dermatological conditions were excluded. A total of 107 vitiligo patients meeting the inclusion and exclusion criteria were enrolled. Their demographic and clinical profiles were documented, and the impact on quality of life was assessed using the Dermatology Life Quality Index (DLQI) and Vitiligo Impact Scale-22 (VIS-22). Data were statistically analyzed using IBM SPSS software version 29.2.0(20).

Results:

- Most study participants were aged 25–34 years, predominantly female, unmarried, and urban residents. The majority were Muslims and belonged to the upper-lower socio-economic class as per the Kuppuswami classification. Most were homemakers, followed by self-employed individuals, students, and the unemployed. The duration of vitiligo in most cases ranged from 1 to 5 years.
- Most of them had unstable and non- segmental vitiligo.
- The mean VASI score was 4.39±3.77.
- The mean DLQI score and VIS 22 score were 5.39±1.77 and 18.12±3.97 respectively.
- The mean DLQI score was significantly higher in the patients having vitiligo over both exposed and non-exposed sites and higher VASI score as compared to their counterparts.
- The mean VIS22 score was significantly higher in females, unmarried patients, unemployed patients and those having vitiligo over both exposed and non -exposed sites as compared to their counterparts.

- In our study, vitiligo had small and moderate impact on quality of life according to DLQI and VIS22 scale respectively.
- In our study, DLQI score had correlation with VASI score(Pearson correlation = 0.320) but VIS 22 score did not correlate with VASI score(Pearson correlate = 0.05)



Variance in DLQI, VIS-22, scores with socio-demographic variables and disease-specific variables

Categories		No. (%)	Mean DLQI score ±S.D	p value	Mean VIS 22 score ±S.D	p value
Total		107(100)	5.39± 1.77		18.12±3.97	
Sex	Male	40(37.3)	5.15±1.73	>0.05	16.98±3.02	**<0.05**
	Female	67(62.6)	5.53±1.79		**18.81±4.32**	
Age group (years)	15-24	26(24.2)	5.88±2.00	>0.05	18.96±3.83	>0.05
	25-34	48(44.8)	5.22±1.75		18.52±4.41	
	35-44	23(21.4)	4.95±1.39		17.00±3.28	
	45-54	8(7.4)	6.00±2.07		16.13±2.99	
	55-64	1(0.9)	6.00±0		19.00±0	
	65-74	1(0.9)	5.00±0		18.00±0	
Marital status	Married	52(48.5)	5.13±1.74	>0.05	16.92±3.5	**<0.05**
	Unmarried	54(50.4)	5.64±1.79		**19.34±4.0**	
	Widow	1(0.9)	5.00		12.00	
Occupation	Govt. job	3(2.8)	6.66±2.51	>0.05	17.33±0.57	
	Pvt. Job	10(9.3)	5.00±1.49		17.60±4.08	
	Self employed	22(20.5)	5.00±1.44		17.00±3.32	
	Minor works	8(7.4)	4.87±1.24		16.25±2.76	
	Homemaker	26(24.2)	5.23±1.92		17.15±4.30	
	Student	19(17.7)	6.10±2.28		19.26±4.01	**<0.05**
	Unemployed	19(17.7)	5.57±1.42		**20.79±3.64**	
Sites involved	Exposed	27(25.2)	5.44±1.39	**<0.05**	19.19±3.79	**<0.05**
	Exposed and non- exposed	76(71.0)	5.53±1.79		18.03±3.91	
	Non exposed	4(3.7)	2.25±0.50		12.75±0.95	
VASI score group	<5	75	5.18±1.55		18.24±4.07	>0.05
	>5-10	23	5.04±1.69		16.96±3.37	
	>10	9	8.00±1.73	**<0.05**	20.11±4.01	

Conclusion:

The VIS-22 scale, specifically designed for vitiligo, comprehensively assesses all relevant domains of quality of life and, in our study, demonstrated greater sensitivity compared to the DLQI scale. Beyond clinical evaluation and disease severity, it is essential to consider additional factors—such as the patient's place of residence, distance from healthcare facilities, occupation, income, and family support—when formulating an appropriate treatment plan.

Abstract N°: 3957

The Unseen Burden of Non-visible Vitiligo: Psychological Implications of Non-exposed Vitiligo in a Cohort of 283 Patients

Hyun Jeong Ju*[1], Ji yoon Kim[2], Ji Hae Shin[2], Solam Lee[3], Joon Min Jung[4], Soon-Hyo Kwon[5], Bo Young Chung[6], Si-Hyung Lee[7], Ki-Heon Jung[8], Jung Min Bae[1], Jeong Eun Kim[9], SangHoon Lee[10], Hwa Jung Ryu[11], Sang Ho Oh[12], Jeonghyun Shin[13], Hee Young Kang[14], Sung Eun Chang[4], Dong Youn Lee[15], Gwang Seong Choi[13]

[1]The Catholic University of Korea, St. Vincent s Hospital, Suwon</br>²The Catholic University of Korea, St. Vincent s Hospital, Suwon, Korea, Rep. of South
[3]Yonsei University Wonju College of Medicine, Wonju, Korea, Rep. of South
[4]Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea, Rep. of South
[5]Kyung Hee University School of Medicine, Seoul, Korea, Rep. of South
[6]Hallym University College of Medicine, Seoul, Korea, Rep. of South
[7]Seoul National University College of Medicine, Seoul, Korea, Rep. of South
[8]Kyung Hee University, Seoul, Korea, Rep. of South
[9]Hanyang University College of Medicine, Seoul, Korea, Rep. of South
[10]Soon Chun Hyang University Hospital, Bucheon, Korea, Rep. of South
[11]Korea University Ansan Hospital, Ansan, Korea, Rep. of South
[12]Yonsei University College of Medicine, Seoul, Korea, Rep. of South
[13]Inha University School of Medicine, Incheon, Korea, Rep. of South
[14]Ajou University School of Medicine, Suwon, Korea, Rep. of South
[15]Sungkyunkwan University School of Medicine, Seoul, Korea, Rep. of South

Introduction & Objectives:

Vitiligo is widely recognized for its psychosocial impact, especially when affecting exposed areas. However, the burden of non-exposed vitiligo remains underexplored, despite evidence suggesting it may significantly impair quality of life (QoL) and psychological well-being. Therefore, we aimed to evaluate the impact of vitiligo confined to non-exposed areas on patients' quality of life, psychological health, and specific disease-related concerns.

Materials & Methods:

This multicenter, prospective, cross-sectional study was conducted at 15 tertiary hospitals across South Korea between March 2023 and September 2024. A total of 283 adult patients with vitiligo exclusively involving non-exposed areas were enrolled. Patients completed validated questionnaires including the Dermatology Life Quality Index (DLQI), Psychosocial Well-being Index-Short Form (PWI-SF), Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and Vitiligo Impact Patient Scale-Short Form (VIPS-SF).

Results:

Among participants (mean age 47.8 years; 65% female), 47.7% reported moderate to severe QoL impairment, and 67.8% were at high-risk stress. Moderate to severe anxiety and depression were reported in 23.7% and 19.8% of patients, respectively. Disease progression and appearance-related concerns were prominent, despite lesions being non-visible.

Conclusion:

Vitiligo imposes a substantial psychosocial and emotional burden even when limited to non-exposed areas. Inclusive treatment strategies and psychosocial support for all vitiligo patients will be necessary, regardless of lesion visibility or exposure.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4021

A review of 205 cases from a specialized tattoo consultation in Paris, France

Nicolas Kluger*[1, 2, 3], Vincent Descamps[1]

[1]Bichat Claude Bernard Hospital, Dermatology, Paris, France
[2]Aava medical Centre, Helsinki, France
[3]Tampere University Hospital, Dermatology, Tampere, Finland

Introduction & Objectives:

"Tattoo clinics" have developed within several university hospitals in Europe mainly to provide specific health care to patients with tattoo reactions. In 2017, the first and only "tattoo consultation" has been opened at the Bichat-Claude Bernard Hospital, Paris, France. We report a series of 205 patients that have managed on site or remotely by teleconsultation from 2017 to 2025.

Materials & Methods:

We reviewed the data from all the outpatients referred for tattoo reactions between may 2017 and april 2025. Patients were either i) referred at the Department of Dermatology, Bichat – Claude Bernard Hospital (n=153, 74%) or ii) by email teleconsultation (n=53, 26%). We analyzed the demographics, clinical diagnosis and microscopic findings.

Results:

206 consultations (116 women, 56%, median age 35 years) were included. In 79% of the cases (n=162), patients consulted for a complication within one tattoo or more and in 15% (n=31) for advice before getting a tattoo. Permanent make-up tattoos were involved in 5.3% (n=11, only women) of the cases.

Allergy to one color were the most common diagnosis (30%, 49/162), mainly against warm colors (red, red brown, pink, orange, yellow (86%, 42/49) and followed by non-infectious granulomas (14%, n=23), including sarcoidosis in 7 cases (30% of the cases of granulomas, 4% of all cases). Granulomas occurred within black tattoos in 91% of the cases (21/23). Healing issues, dyschromia and scarring represented 18% of the consultations, including 10 cases of overworked tattoo. The rest comes as follows: cutaneous infections (12%, n=19, including 6 cases of mycobacterial infection), itch on tattoos (4%), pain on tattoos (4%), eczema on tattoos (3%), psoriasis and lichen (1% and <1%). We had no case of melanoma or NMSC in tattoos, but 3 patients had single or multiple keratoacanthomas (<2%). 31 patients received advice before getting a tattoo. The spectrum of conditions they suffered were extremely diverse from numerous moles to heart transplant.

Conclusion:

We report the largest series of tattoo reactions in France. The pattern of complications is somewhat similar as in other countries, although there is still a predominance of tattoos allergies to red, and few granulomas on tattoos. In Finland for instance the prevalence of granulomas is higher. It may reflect differences in choice of tattoos colors, ink brands or illustrate the difference of prevalence of sarcoidosis which is higher in northern Europe. The consultation is also useful for patients looking for advice before getting a tattoo.

Abstract N°: 4079

Erythema ab Igne: A diagnostic challenge in an underappreciated condition

Afli Donia[1], Nesrine Ben Salah[1], Mouna Korbi[1], Elghadi Cheikh[1], youssef monia[1], Hichem hba[1], Jameleddine Zili[1]

[1]University Hospital of Monastir, Dermatology Department, Monastir, Tunisia

Introduction & Objectives:

Erythema ab igne (EAI) is characterized by reticulated erythematous hyperpigmentation associated with epidermal atrophy and telangiectasia, due to repeated and prolonged thermal exposure. We report the case of a patient presenting an unusual location of this condition, linked to the traditional use of the kanoun, a common domestic heat source in rural areas.

Materials & Methods:

NA

Results:

This is a 14-year-old girl, with no medical history, who has had a reticulated, asymptomatic dermatose for one month. Clinical examination reveals a brownish reticulated dermatitis, non-infiltrated, fixed, not blanching upon pressure, located on the palmar surfaces of both hands. The biological assessment was unremarkable. The patient's history reveals prolonged and repeated exposure to the kanoun, which she uses daily in the winter to warm herself. The diagnosis of EAI was made based on the clinical appearance and the interview data. Avoidance of exposure was recommended, and the lesions completely disappeared after two months.

Conclusion:

EAI is a dermatose induced by repeated exposure to infrared rays emitted by various heat sources (fireplaces, radiators, hot water bottles, heaters). It most commonly appears on the lower limbs, abdomen, lower back, and buttocks. However, our case is unusual due to its atypical location. The onset of lesions varies depending on the intensity of the heat source and the frequency of exposure. Clinically, EAI presents as a reticulated erythematous eruption, which then becomes brownish in pigmentation, asymptomatic. Chronic exposure to the heat source causes damage to superficial blood vessels, leading to vessel dilation and hemosiderin deposition. The reticulated "mesh-like" appearance corresponds to the vascular and anastomotic network of the skin. Diagnosis is primarily clinical, supported by the patient's history (exposure to a heat source). EAI typically resolves gradually over several months after cessation of exposure, although pigmentary sequelae may persist in cases of prolonged evolution. Rare cases of squamous cell carcinomas have been reported in chronic forms. Although this condition is not well-known, it is not uncommon in certain populations using traditional heating sources. It warrants greater awareness among practitioners to avoid unnecessary investigations and to provide appropriate preventive measures.

Abstract N°: 4301

Lichen planus pigmentosus : A retrospective study of 23 cases

Hasna Kerrouch[1], Rachid FRIKH[1], Naoufal Hjira[1]

[1]Military hospital of instruction mohamed V , Dermatology, RABAT

Introduction & Objectives:

Lichen planus pigmentosus (LPP) is considered a rare variant of lichen planus (LP). It is characterized by chronic acquired dark brown to bluish macular pigmentation on sun exposed areas with an unclear etiology and patho genesis. The aim of our study was to establish the epidemio-clinical, therapeutic and evolutionary profile of this rare entity.

Materials & Methods:

A retrospective study was conducted on patients admitted to our dermatology department. We included 23 patients with LPP. Data collected from medical records included: epidemiology, diagnosis, contributing factors, associated diseases, quality of life, treatment, and outcome. Statistical tests were performed using JAMOVI 2.3.16 software.

Results:

Twenty-three patients with LPP were identified. The mean age was 46.6 +/- 6.23 years and the F/M sex ratio was 4.75. Most had phototype IV (47.8%). A triggering factor was not associated with LPP in 65.2% of our patients.

Spotted LPP was the most common type (60.9%), with the cheeks and forehead being the most affected areas; a brown background on dermoscopy was present in 61.2% of cases; the distribution of globules and dots in a complete reticular pattern was the most common pattern (70.5%).

Histologically, all of our patients presented with a lymphocytic infiltrate in the dermis in a band with melanophages.

Associations were dominated by diabetes (21.7%) and thyroid dysfunction (13%). The DLQI was 12.74.

All our patients were receiving topical corticosteroids combined with hydroquinone creams in 17 patients and depigmenting creams in 22 patients. 17 were given tranexamic acid, 3 were given hydroxychloroquine, 2 were given DDS, and 1 patient was given cyclines. Three patients had partial improvement, 4 patients were lost to follow-up, and 16 patients had no improvement.

Conclusion:

LPP exists among Maghrebis although its prevalence is probably underestimated

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4353

Economic Burden of Autoimmune and Psychiatric Comorbidities in Newly Diagnosed Patients with Vitiligo

David Rosmarin*[1], Ahmed M Soliman[2], Kent Hanson[2], Bang Truong[2], Sylvester Uwumarogie[2], Nada Elbuluk[3]

[1]Indiana University School of Medicine, Department of Dermatology, Indianapolis, United States
[2]AbbVie, Inc, North Chicago, United States
[3]Keck School of Medicine of USC, Department of Dermatology, Los Angeles, United States

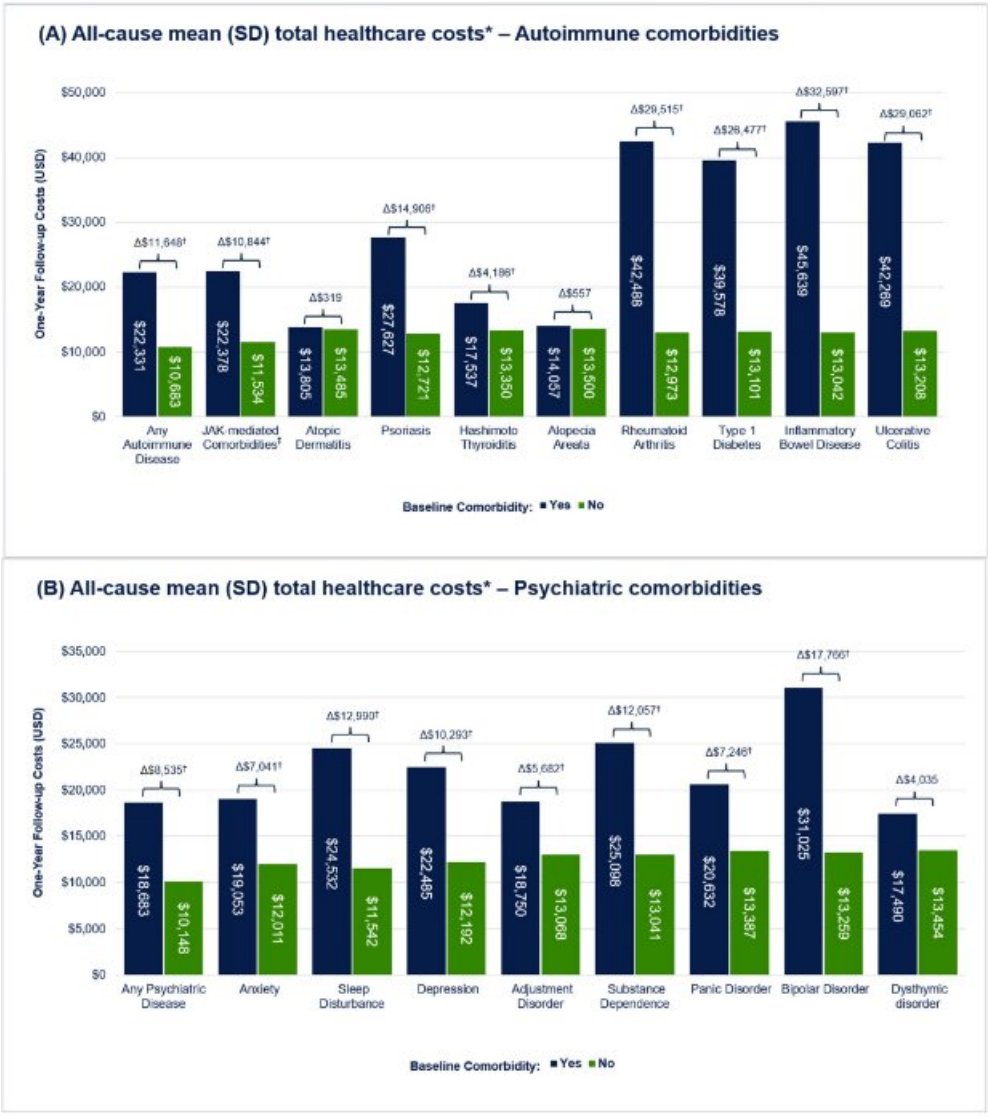
Introduction & Objectives: Vitiligo is a chronic autoimmune disorder characterized by skin depigmentation resulting in melanocyte loss. Treatment of vitiligo is challenging, with limited treatment options, including topical and oral medications, phototherapy, and surgery. The impacts of vitiligo on patient quality of life are substantial, including those due to comorbid autoimmune diseases and psychiatric conditions. This study evaluated the economic burden of these comorbidities in patients with vitiligo.

Materials & Methods: This retrospective cohort study used data from the Merative MarketScan Commercial Database between 1 Jan 2016 and 1 Nov 2023. The index date was defined as the date of first vitiligo diagnosis (ICD-10-CM L80, H02.73, N90.89) by a dermatologist recorded in the database. Patients with index dates between 1 Jan 2019 and 1 Nov 2022, aged 12 years or older at index, and with 12 months of pre- and post- index continuous enrollment were included. For all patients, 3-year pre-index data were evaluated for the presence of pre-specified comorbidities. Outcomes included the prevalence of psychiatric or autoimmune comorbidities at baseline, and the crude and adjusted one-year follow-up total and vitiligo-related healthcare costs for those with versus without baseline comorbidities. Given the interest in JAK inhibitors for vitiligo treatment, costs for patients at least one JAK-mediated comorbidity were also assessed. The unadjusted and adjusted (adjusted for age at index, sex, region, and Charlson comorbidity index) healthcare cost differences (in 2023 USD) and corresponding p-values were obtained using a generalized linear model with gamma or Tweedie distribution, where appropriate.

Results: Among the 11,679 patients with vitiligo, 55% were female and the mean age was 42.5 years. Among patients with geographic data, the majority (38%) resided in the South, followed by the Northeast (17%), Midwest (16%), and West (15%); data was missing for the remaining 14%. In the sample, 24.3% of patients had at least one autoimmune comorbidity—most commonly atopic dermatitis (8.1%), psoriasis (5.3%), and Hashimoto's thyroiditis (3.9%)—resulting in one-year mean total healthcare costs of $22,331 compared to $10,683 for those without baseline autoimmune comorbidities. At least one comorbid psychiatric diagnosis was present in 39.4% of patients, which translated to a one-year mean total healthcare cost of $18,683 compared to $10,148 for those with no baseline psychiatric comorbidities. Among patients with at least one JAK-mediated comorbidity, one-year follow-up costs were $22,378, compared to $11,534 for those without such comorbidities at baseline. The crude mean cost differences for specific comorbidities are presented in Figure 1.

Conclusion: Our study highlights the substantial economic burden that patients with pre-existing autoimmune and psychiatric conditions face in the first year following vitiligo diagnosis. Approximately one in four patients diagnosed with vitiligo had a prior diagnosis of at least one autoimmune condition, supporting that vitiligo has an underlying autoimmune pathogenesis and is not a cosmetic disease. Patients with autoimmune and psychiatric comorbidities incurred significantly higher healthcare costs relative to patients without these conditions, underscoring the need for a comprehensive, multidisciplinary approach to vitiligo management.

Figure 1. All-cause mean (SD) total healthcare costs for (A) autoimmune comorbidities and (B) psychiatric comorbidities.



*All costs inflated to 2023 USD
†p<0.05; ‡Includes: Atopic dermatitis, psoriasis, psoriatic arthritis, rheumatoid arthritis, inflammatory bowel disease, hidradenitis suppurativa, ulcerative colitis, systemic lupus erythromatosus, Crohn's disease, alopecia areata, psoriatic arthritis, ankylosing spondylitis, dermatomyositis, giant cell arteritis, and nonradiographical axial spondyloarthritis

Abstract N°: 4360

Efficacy and Safety of Modified Laser-assisted Suction Blister Epidermal Grafting (m-SBEG) in Stable Vitiligo Vulgaris: A Long-term Follow-up Study of 296 Patients

Yu-Wen Huang*[1], Chau Yee Ng[1]

[1]Chang Gung Memorial Hospital, Department of Dermatology, Taoyuan, Taiwan

Efficacy and Safety of Modified Laser-assisted Suction Blister Epidermal Grafting (m-SBEG) in Stable Vitiligo Vulgaris: A Long-term Follow-up Study of 296 Patients

Introduction & Objectives: Suction blister epidermal grafting (SBEG) is a well-established technique for vitiligo patients unresponsive to medical or phototherapy. This study introduces a modified SBEG incorporating a laser-assisted approach, improved harvesting techniques, and immunosuppressants to address traditional limitations and enhance outcomes. The cohort study aims to evaluate the long-term efficacy and safety of modified SBEG in vitiligo patients, and identify variables predicting positive outcomes.

Materials & Methods: A total of 296 stable vitiligo patients underwent modified SBEG and were followed for one year. Two dermatologists assessed the outcomes and compared them with age, vitiligo subtype, medical history, and transplant location. Demographic characteristics and biomarker profiles were analyzed to identify predictors of graft success.

Results: The modified SBEG achieved 78.08% efficacy in repigmentation. Best outcomes were in the trunk, and worst in the acral region. There was no difference between segmental and non-segmental vitiligo. Younger age and smaller body surface area predicted success. The procedure had a favorable safety profile, with temporary color mismatches and one case of minor scarring.

Conclusion: The modified SBEG significantly improved repigmentation compared to conventional techniques. Patients experienced faster and more consistent repigmentation with larger treated areas in less time, and reported superior outcomes.

Abstract N°: 4445

When Becker's Nevus Appears in a Girl: An Atypical Case Report

Chaimaa Hakkaoui[1], Lakhal imane[2], chaouch mohammed[2], chakiri radia[2]

[1]souss massa university hospital , dermatology , agadir , Morocco
[2]souss massa university hospital , Agadir, Morocco

When Becker's Nevus Appears in a Girl: An Atypical Case Report

Introduction & Objectives:

Becker's nevus is an acquired pigmented hamartoma, most commonly observed in male adolescents. It is typically characterized by well-defined hyperpigmentation, often associated with hypertrichosis, and usually appears on the upper trunk and arms. The aim of this case report is to present an atypical presentation of Becker's nevus in a 17-year-old Moroccan girl and discuss its clinical features and dermoscopic findings.

Materials & Methods:

A 17-year-old Moroccan high school student was referred to the dermatology department for evaluation of an asymptomatic, hyperpigmented skin lesion. The lesion had been evolving since childhood, first appearing around the age of 8 on the left shoulder. A detailed clinical examination was conducted to assess the lesion's characteristics, followed by dermoscopic evaluation and clinical correlation.

Results:

Clinical examination revealed a large, well-demarcated, irregularly contoured blackish patch on the left upper limb, accounting for approximately 5% of the total body surface area. No significant hypertrichosis was observed compared to the surrounding healthy skin. The dermoscopic evaluation showed a pigmented network without fluorescence under Wood's lamp. The absence of associated malformations and hypertrichosis pointed towards an isolated form of Becker's nevus. The clinico-dermoscopic correlation supported the diagnosis.

Conclusion:

Becker's nevus, while typically seen in male adolescents, can present atypically in females, as demonstrated in this case of a 17-year-old Moroccan girl. The absence of hypertrichosis and associated malformations suggests an isolated form of the nevus, which does not require treatment unless aesthetic concerns arise. This case highlights the importance of recognizing Becker's nevus in diverse patient populations and underscores the need for careful clinical and dermoscopic evaluation for an accurate diagnosis.

Abstract N°: 4507

SOCS Gene Polymorphism In Vitiligo Patients

Elif Irmak Yazıcı[1], Hayriye Sarıcaoglu[2], Sehime Gülsün Temel[2], Emel Bulbul Baskan[2], Kenan Aydogan[2], Serkan Yazıcı[2], Güven Ozkaya[2], H. Barbaros ORAL[2]

[1]Bursa State Hospital, Bursa, Türkiye
[2]Uludag University, Bursa, Türkiye

Introduction & Objectives: The suppressors of cytokine signaling (SOCS) proteins, especially SOCS1 and SOCS3, are important in providing immune hemostasis and are involved in the pathogenesis of autoimmune diseases such as atopic dermatitis, psoriasis, systemic lupus erythematosus, rheumatoid arthritis, sjogren's syndrome, diabetes mellitus, inflammatory bowel disease, multiple sclerosis. The etiopathogenesis of vitiligo is unknown, but genetic predisposition and autoimmunity are emphasized.

We aimed to investigate the role of SOCS1 and SOCS3 gene polymorphisms in susceptibility to vitiligo disease, and development of clinical features, and to contribute to the elucidation of the pathogenesis of vitiligo.

Materials & Methods: The association of SOCS1 rs33989964, SOCS3 rs4969168, SOCS3 rs4969170 polymorphisms with vitiligo development, and clinical features were evaluated in 100 patients who were clinically diagnosed as nonsegmental vitiligo, and 100 healthy controls. TaqMan probe, and polymerase chain reaction method were used for genotyping, and IBM SPSS 23.0 program was used for statistical analysis.

Results: There was no statistically significant correlation between SOCS1 rs33989964, SOCS3 rs4969168, SOCS3 rs4969170 polymorphisms, and vitiligo. SOCS1 rs33989964 del/del genotype in progressive patients (p:0.025); SOCS3 rs4969168 AA genotype in patients with spontaneous vitiligo, and accompanied by the Koebner's phenomenon (p:0,031, p:0,049); SOCS3 rs4969170 AA genotype in patients with poliosis (p:0,024) were statistically significant. SOCS3 rs4969168 A allele frequency in patients with familial autoimmunity (p:0.036); in patients with poliozis, and leukotrichia, the SOCS3 rs4969170 A allele frequency was significantly higher (p:0.006, p:0.048).

Conclusion: Although there is no association between SOCS1 and SOCS3 polymorphisms and vitiligo development; there were significant values in patients with vitiligo spontaneously, familial autoimmunity, köbner phenomenon, poliozis, leukotrichia, and progressive disease. While our case-control study with a small number of patients contributes to the pathogenesis of vitiligo, these findings should be supported by large case-controlled studies in which polymorphisms and gene expression are studied together.

Abstract N°: 4636

PEAUrigami® : an educational-artistic approach to fight against the stigmatization of vitiligo patients and raise public awareness.

Corinne Dechelette[1, 2], Martine Carré[3]

[1]LA PEAU AUTREMENT, PEAUrigami, Toulouse, France
[2]Laboratoire anthropologie, archéologie, biologie (LAAB), UVSQ/Paris-Saclay, Montigny-le-Bretonneux, France
[3]AFV, Association Française du Vitiligo, PARIS, France

Introduction & Objectives:

No other organ in the human body has as many functions as the skin: biological, cultural, social and psychological. The skin is the first thing we notice and the basis on which we draw conclusions about a person.

However, the eye apprehends diseased skin as unwholesome and patients with dermatoses such as vitiligo are often stigmatized. To fight against the stigmatization of patients with skin diseases, we propose a collective pedagogical-artistic approach based on the Japanese art of origami; hence the name PEAUrigami® (“peau” means skin in French).

Materials & Methods:

This pedagogical-artistic approach has been experimented by the French Association of Vitiligo during a national awareness operation in 18 large cities of France in 2021 named " The French vitiligo tour”. Beforehand, photos of skin affected by vitiligo were printed on 15x15cm paper squares. In each city, the general public was invited to choose a skin-paper, then to fold a pyramid origami and to place it on a collective work that took shape as we went along. The spontaneous comments of the visitors (with healthy skin and skin with vitiligo) were reported in 2 tables and analyzed by a psychologist.

Results:

More than 2 000 people (general public, patients, families as well as caregivers) have been made aware of vitiligo using the PEAUrigami® approach. It made it possible to retain the visitors on the booth and to offer an innovative support to exchange.

The interest of this artistic and therapeutic approach lies in the fact that it is aimed at everyone: children, young people, adults, men or women and whether or not they are affected by vitiligo. It frees up speech to express one’s feelings, fears and anxieties. It allows people to put their experiences into perspective with other experiences of the disease, both similar and different.

There were 2 important moments in the process:

\1. That of the folding with the choice of the photo of skin (vitiligo more or less extended) and the

discussion which followed to explain the disease (table 1)

\2. The positioning of the origami in the collective artwork with an awareness of the diversity of skin

affected by vitiligo (table 2).

Conclusion:

In the end, the awareness operation was optimized quantitatively (more time spent on the booth) and qualitatively (people will remember the vitiligo origami). This origami workshop allowed people to materialize their own difference and their own suffering to build a collective work, to situate themselves in relation to the evolution of their own disease, to dialogue with their peers and to ask questions in complete confidence.Moreover, the collective artwork is symbolic (each person has made a contribution) and aesthetic : it allows to support the message “Even with a vitiligo, the skin is beautiful”. This PEAUrigami® approach is applicable to all dermatoses.

Abstract N°: 4678

Targeting Hyperpigmentation Across All Skin Tones: 2 New Clinical Evaluations of Multi-Controlling Agents Featuring 2-Mercaptonicotinoyl Glycine (2-MNG) on Diverse Pigmentary Disorders

Marcelli Alves[1], Divya Agrawal[2], Charlotte Boissard[3], Elisabeth Bouhadana[4], Laurent Cordier[3], Frédéric Flament[3], Chantal Jouy[3], Rashmi Kelkar[2], Mathilde Lihoreau[4], Rima Rakshit[2], Laurence Vesperini[3]

[1]L'Oréal R&I, Rio De Janeiro, Brazil
[2]L'Oréal R&I, Mumbai, India
[3]L'Oréal R&I, Chevilly-Larue, France
[4]L'Oréal Paris, Clichy, France

Introduction & Objectives:

Hyperpigmentation disorders are prevalent dermatological conditions affecting nearly half the global population, significantly impacting quality of life and potentially self-confidence. While various cosmetic solutions combine several actives & mechanisms to address the problem, consumers are constantly looking for more effective and faster solutions for their specific needs, while being respectful of the skin's natural processes and skin tones.

A new cosmetic active ingredient, 2-Mercaptonicotinoyl Glycine (2-MNG) intercepts localized excess melanin precursors, forming excretable adducts, thus preventing spot formation. It shows high performances in vitro in controlling hyperpigmentation as well as in vivo in different phototypes and skin disorders.

The two new recent studies aim to demonstrate, on an inclusive & diverse population in terms of age & phototype, the efficacy of a new combination of active ingredients presenting complementary biological pathways:

- 2-MNG: intercepts melanin precursors in skin

- Niacinamide: anti-inflammatory + slows down melanosome transfer + reinforces skin barrier

- Hydroxyethyl piperazine ethane sulfonic acid: favors natural desquamation

- Capryloyl salicylic acid: keratolytic

- Caffeine: anti-inflammatory

Materials & Methods:

i. A real-life controlled and open clinical study has been designed on 88 Brazilian women with phototypes (I–VI) aged 18-60 years and presenting different disorders (solar lentigo, post-inflammatory hyperpigmentation (PIH), etc.) to assess the efficacy of the new combination on a very diverse population. They applied the cosmetic product twice daily for 8 weeks. Evaluations were performed before and after 56 days of daily usage.

ii. A second clinical study was performed on 37 Indian women phototypes (III-VI), aged 18-50, to observe the efficacy on PIH in a melanin-rich population. These healthy women with PIH prevalence applied the cosmetic formulation twice daily. Clinical grading by dermatologist and instrumental evaluation using Spectrophotometer (L* a* b*) were made before and after 12 weeks of daily usage, to monitor the impact of the treatment over time.

Results:

i. The visibility of dark spots (including PIE/PIH) was significantly improved across all tested skin tones. A statistical reduction in dark spots was observed as early as 7 days after starting use, with an average reduction of up to 45.9% after 8 weeks. Self-assessment questionnaires indicated high satisfaction.

ii. Compared to baseline, significant improvement ($p < 0.001$) in post-inflammatory hyperpigmentation (PIH) was observed after week 2 with visible results on the melanin rich study population. The progressive improvement continued over time with more than 50% decrease in contrast of spot with adjacent skin by 12 weeks.

Conclusion:

The new combination of hyperpigmentation controlling agents including 2-MNG - has demonstrated its functionality and visible clinical performance on all phototypes and pigmentation disorders from real-life studies in a diversely pigmented population.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4686

An investigation evaluating the efficacy of a 2-MNG-containing serum on improving skin tone and hyperpigmentation: results of 2 clinical studies

Baiyu LI[1], rui li[1, 2], Janie Liu[1], runlin mi[1, 2], chunyu zhao[1, 2], wenna wang[3], zailing zhu[3], Xiaofeng He[3], xiaoyin zhou[3], jie qiu[3], yi yi[3], Yueqing Niu[3], Claire HUGUET[4], wei xiong[4], VALENTINE BEGUIN[4], Delphine Kerob[5], Jay Zheng[1, 2]

[1]L'Oréal Dermatological Beauty, L'Oréal China., Medical Department, Shanghai, China
[2]L'Oréal Dermatological Beauty, L'Oréal China., La Roche Posay, Shanghai, China
[3]Research and Innovation Center, L'Oréal China., Shanghai, China
[4]North Asia L'Oréal Dermatological Beauty, L'Oréal North Asia., Medical Department, Shanghai, China
[5]La Roche-Posay, France., La Roche-Posay Laboratoire Dermatologique, Levallois Perret, France

Introduction & Objectives:

Hyperpigmentation disorders and skin tone unevenness are a very frequent concern worldwide, especially in China, with a strong impact on quality of life and social stigmatization. 2-MNG (MelasylTM) is an innovative anti-pigmentation ingredient which binds with melanin precursors, being an alternative to tyrosinase inhibitors. This study aims to assess the efficacy and safety of a 2-MNG-containing serum in improving hyperpigmentation and skin tone unevenness.

Materials & Methods:

This investigation comprised a 28-day randomized controlled study (study 1) and a 63-day single-arm study (study 2).

In study 1, thirty-two healthy Chinese male (N=11) and female (N=21) subjects (mean age: 39.30±12.4) underwent skin darkening modeling treatment (using UV solar simulator, 0.5 MED once daily, continuously for 4 days) on their back, then a test area (using test product) and a negative control (NC) area (no product using) were randomly selected on each subject's back. Measurements of skin color were performed at baseline (after skin darkening induction, before using product), after 1 (W1), 2 (W2), 3 (W3), and 4 (W4) weeks of use.

In study 2, forty-two Chinese female subjects (with 52% subjects self-claimed as sensitive skin, mean age: 41.38±6.74), with at least one dark spot (diameter≥3mm) on face, use the test serum on face twice daily, continuous for 56 days. Evaluations were performed at D0 (baseline), D14, D28, D56 and D63 (7 days after stopping using).

Results:

1. In study 1, compared to baseline (after skin darkening induction), both groups showed some improvements on skin tone ITA°, melanin index (MI) and skin color after 28 days. However, compared to NC, 2-MNG-containing serum showed much significant improvements on skin tone ITA°, MI and skin color at W1, W2, W3 and W4 (Figures 1A-C). This result means 2-MNG-containing serum has very good efficacy on improving skin darkness.

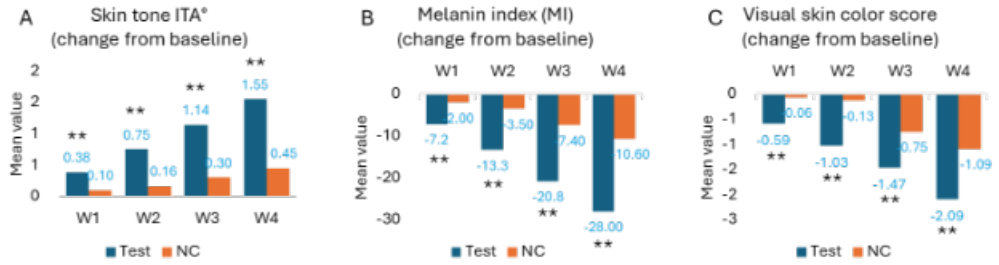


Figure 1. Measurements of skin tone ITA° (higher ITA° values correspond to lighter skin tones) and MI, clinical assessment of visual skin color (scale: 0-9, the lower values correspond to lighter skin color), change from baseline (after skin darkening induction, before product use)

1. In study 2, compared to D0, applying the test serum on whole face can significantly improve skin tone ITA° on D56 and D63 (Figure 2A), decreased MI from D28 till D63 (Figure 2B) and improved skin gloss after immediately use till D63 (Figure 2C).

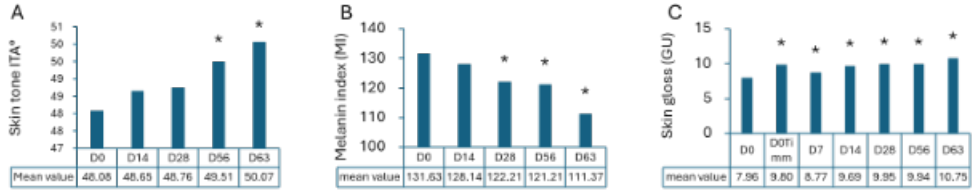


Figure 2. Investigational assessments of skin tone, MI and skin gloss on whole face.

1. Additionally, applying the serum on the dark spot area also show significant improvements on skin tone and MI (Figures 3A-B), with the improved ITA° and MI value close to the value of whole face at D0 (Figures 2A-B), suggesting the serum has good efficacy on improving hyperpigmentation and can perform good efficacy on skin tone unevenness.

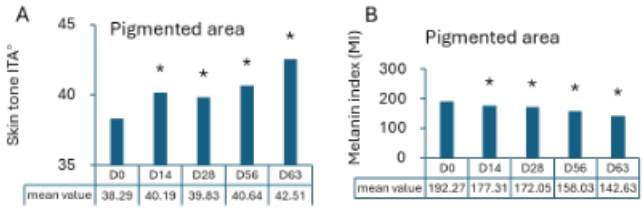


Figure 3. Investigational assessments of skin tone and MI on dark spot area.

Conclusion:

This investigation demonstrates a 2-MNG-containing serum can significantly improve skin pigmentation induced by UV radiation, also can bring better skin tone evenness by improving skin tone and decreasing melanin index on dark spot area.

Abstract N°: 4694

Combination therapy with oral gliadin-protected superoxide dismutase and phototherapy in vitiligo management

Jacem Rouatbi[1], Mohamed Ben Rejeb[1], Sarra Saad[1], Denguezli Mohamed[1]

[1]Farhat Hached University hospital , Dermatology, Sousse, Tunisia

Introduction & Objectives:

The treatment of vitiligo can be challenging**.** The therapeutic efficacy of antioxidants in the management of vitiligo remains insufficiently substantiated by clinical evidence. This study aim** to evaluate the efficacy of gliadin-protected Superoxide dismutase (GP-SOD), associated with narrowband ultraviolet B (NB-UVB) phototherapy, for treating vitiligo.

Materials & Methods:

We conducted a 24-week monocentric prospective study in the department of dermatology. Subjects with non-segmental vitiligo affecting more than 5% of the total body surface were included. All the patients recieved GP-SOD 1g per day for 12 weeks followed by 500mg per day for 12 weeks in combination with twice-weekly sessions of NB-UVB. The end points were the repigmentation rate at 12 weeks and 24 weeks, as assessed by vitiligo extent score (VES) on standardized pictures.

Results:

A total of 17 patients (12 women and 5 men) were included in the study, and all were analyzed. The mean age was 42 years old [18-65]. A family history of vitiligo was reported in 6 patients (35%). A personal history of autoimmune disease was noted in 4 patients (23,5%), while 3 patients (17.6%) had a family history of other autoimmune diseases.. Phototype IV was the most common phototype, seen in 11 (65%) patients followed by phototype III (5 patients (30%)). The mean duration of vitiligo was 7,65 years. The mean VES at baseline, week 12 and week 24 was 17,89±11,85, 11,82±7,33 and 8,8±6,52 respectively. Overall, 12 (70%) and 9 (53%) out of the 17 patients reached 30% improvement in VES (VES30) and VES50 respectively. Patinets who reached VES50 were significantly younger than those who did not (35,3 vs 51,5 years old ; p=0,049). Throughout the duration of the study, no adverse events were reported or observed.

Conclusion:

Oxidative stress is believed to play a pivotal role in the pathogenesis of vitiligo. Among the key antioxidant enzymes, superoxide dismutase (SOD) plays a central role in neutralizing superoxide radicals, thereby protecting cells from oxidative injury. However, SOD administred orally is ineffective since its bioactivity is compromised during gastrointestinal transit due to its degradation. Oral administration of GP-SOD ensures enzymatic stability, protects it from inactivation and therefore preservs its therapeutic potential. Several studies have demonstrated the potentiel superior activity of GP-SOD. In this context, our study investigated the clinical impact of combining GP-SOD with NB-UVB phototherapy in treating vitiligo. Our findings demonstrate that 53% of patients achieved ≥50% repigmentation, with a substantial decrease in the VES from 17.8 at baseline to 8.8 after 24 weeks of combined therapy with GP-SOD and NB-UVB phototherapy. This suggests a synergistic effect between GP-SOD and NB-UVB. These results are consistent with the literature, further supporting the therapeutic value of antioxidant supplementation in vitiligo management.

Our results emphasize that GP-SOD combined with NB-UVB phototherapy could be a useful add-on in the treatment of vitiligo patients with a favorable safety profile. Further larger-scale randomized controlled trials are warranted to validate these findings and optimize treatment protocols.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4759

When the Nipple Looks Scary: A Diagnostic Challenge of Pigmented Areolar Lesions

Lamia Mansour Billah[1], Soumia Chiheb[1]

[1]Sheikh Khalifa Bin Zayed Hospital, Casablanca, Casablanca, Morocco

Introduction & Objectives:

Areolar melanosis is a benign pigmented lesion also reported in genital and mucosal regions, though rarely described compared to other sites. Its clinical presentation can be misleading, and despite advances in dermoscopy for melanocytic lesions, dermoscopic data specific to nipple and areolar melanosis remain limited. We report the clinical, dermoscopic, and histologic features of a melanocytic nevus arising within areolar melanosis, mimicking melanoma.

Materials & Methods:

A 25-year-old woman with no significant medical history presented with a pigmented lesion on the right nipple that had recently increased in size. Clinical examination revealed inhomogeneous pigmentation covering the entire nipple, with irregular borders. The lesion exhibited variegated pigmentation ranging from light to dark brown, with no areas of normal skin color, and a pigmented, keratotic, irregular satellite lesion on the areola. There were no nodules, bleeding, or axillary lymphadenopathy. Dermoscopy showed a cobblestone pattern, irregular pigmentation, bluish-grey areas with a blue-white veil. No peripheral dark globules, blotches, or signs of regression were observed. Prominent vessels were present, as is typical in the nipple. A skin biopsy confirmed areolar melanosis associated with a small, symmetrical compoung nevus, with no hitological features of melanoma.

Results: Areolar Melanosis is a benign lesion characterized by hyperpigmented basal keratinocytes and increased number of melanocytes. It is often observed during pregnancy, likely influenced by hormonal changes. Clinically, it may present as an irregular lesion in shape and color, with enlargement over time, mimicking a melanoma or a pigmented mammary Paget's disease. Dermoscopic criteria for pigmented lesions of the nipple and areola are not well established due to the limited number of reported cases. Common benign patterns include homogeneous brown pigmentation, cobblestone, and ring-like structures, typically without dots or globules. However, more atypical patterns, such as multicomponent patterns with multiple colors, have also been described, similar to the findings in our patient. Bluish-grey annular areas may appear, particularly in pregnancy, but the absence of a blue-white veil remains a reassuring sign against melanoma.
In this case, concerning features such as asymmetry, irregular borders, color heterogeneity, and lesion size prompted suspicion of melanoma. However, histopathology confirmed a compound nevus arising in a background of areolar melanosis.

Conclusion:

Melanosis is a benign process where, in the absence of progression, no further intervention is necessary. The clinical and dermoscopic features of this condition are often concerning and present a diagnostic challenge. Accurate diagnosis requires careful clinicopathological correlation to avoid unnecessary interventions.

Abstract N°: 4768

Topical Ruxolitinib for Facial Vitiligo: Real-World Experience

Sofia Haselgruber*[1], Daniel Muñoz-Barba[1], Carmen García Moronta[1], GONZALO BLASCO MORENTE[1], José María Latorre Fuentes[1], Salvador Arias-Santiago[1]

[1]Virgen de las Nieves University Hospital, Department of Dermatology, Granada, Spain

Introduction & Objectives: Facial vitiligo presents a significant therapeutic challenge due to the visibility of lesions and their psychological impact. Topical ruxolitinib, a JAK1/2 inhibitor, has recently emerged as a promising treatment option, showing efficacy in clinical trials. However, real-world data remains limited. The aim of this study is to evaluate the efficacy and safety of topical ruxolitinib in patients with treatment-refractory facial vitiligo in a real-life clinical setting.

Materials & Methods: We conducted a prospective, single-center observational study at a tertiary care hospital. Adult patients with non-segmental facial vitiligo refractory to at least one prior topical treatment or phototherapy were included. All patients received ruxolitinib 1.5% cream applied twice daily to the affected facial areas. Clinical and demographic data were collected at baseline. Efficacy was assessed using the Facial Vitiligo Area Scoring Index (F-VASI), Facial Body Surface Area (F-BSA), and a Vitiligo Noticeability Scale (VNS) at baseline and at week 24. Safety was evaluated through adverse event monitoring during the treatment period.

Results: Thirty-four patients with facial vitiligo were included. The mean age was 49.3 ± 15.8 years, and 70.6% were women. All patients were Caucasian. The average disease duration was 17.7 ± 12.5 years. All had failed prior topical therapies, and 67.6% had also failed phototherapy. At baseline, the mean F-BSA was 0.76, and the mean F-VASI was 0.73.

Preliminary efficacy and safety data were available for 14 patients with 14 weeks of follow-up. F-BSA improved from 0.79 ± 0.7 to 0.23 ± 0.2 (p=0.033), with a mean reduction of 60.4%. Among 10 patients with complete F-VASI data, 70% achieved F-VASI50, 60% F-VASI75, and 20% F-VASI90. A VNS score ≥4 was reported by 35.7% of patients. Adverse events occurred in 35.7% of patients, mostly mild local irritation; two cases required temporary treatment discontinuation, and one patient developed mild acne.

Conclusion: Topical ruxolitinib shows promise as an effective and well-tolerated treatment for facial vitiligo in real-life settings, particularly in patients unresponsive to standard therapies. These preliminary findings warrant longer follow-up to evaluate long-term efficacy and safety.

Abstract N°: 4815

Afamelanotide: A Novel Promising Treatment for Vitiligo Case Studies from the Randomized CUV105 Clinical Trial

Antoine Bertolotti*[1]

[1]CHU Sud Réunion, Saint-Pierre, Reunion

Afamelanotide: A Novel Promising Treatment for Vitiligo

Case Studies from the Randomized CUV105 Clinical Trial

Abstract Submission for EADV oral presentation

Introduction & Objectives:

Vitiligo is an autoimmune depigmenting disorder affecting approximately 1-2% of the global population, where the progressive loss of melanocytes causes chalky white depigmented lesions on the skin. The effect of vitiligo on physical appearance results in significant psychological distress to patients, with many experiencing stigma and isolating socially. There is currently no licensed pharmacological treatment for generalised (widespread) vitiligo, and systemic treatments in development rely on immunosuppression, which is not suitable for all patients. Afamelanotide, a systemic, non-immunosuppressive treatment, is currently being investigated in a randomized study (CUV105) for patients with darker skin (Fitzpatrick skin types III-VI). Administered as a bioresorbable subcutaneous implant with adjunctive narrowband ultraviolet B (NB-UVB) phototherapy, afamelanotide stimulates melanogenesis and offers a promising alternative in the therapeutic armamentarium for vitiligo management.

This oral presentation reviews patients who have completed the ongoing CUV105 study, which investigates the efficacy and safety of afamelanotide with adjunctive NB-UVB therapy, versus NB-UVB active control. By examining improvement in repigmentation in these patients, we highlight afamelanotide as a novel and promising non-immunosuppressive option for the treatment of vitiligo.

Materials & Methods:

This is a 20-week study with a six-month follow-up in participants with generalized vitiligo. Up to 200 participants will be randomized into two groups: Group A will receive afamelanotide implants and adjunctive NB-UVB phototherapy, while Group B will receive NB-UVB only. The primary efficacy endpoint is the percentage of participants achieving T-VASI 50 (excluding hands and feet) on Day 140 in those treated with afamelanotide and NB-UVB, compared to NB-UVB alone. Other endpoints include time to onset of repigmentation and maintenance of repigmentation achieved.

Results:

The oral presentation will review case studies from study participants receiving afamelanotide with adjunctive NB-UVB, along with data on time to onset of repigmentation, repigmentation at the end of the treatment phase, and maintenance of repigmentation during follow-up.

Previous case studies showed that a significantly faster time to onset of repigmentation was observed in the afamelanotide and NB-UVB group, compared to NB-UVB alone. At the follow-up visit, patients continued to repigment without further treatment of afamelanotide and/or NB-UVB.

Conclusion:

Afamelanotide is a melanogenesis-stimulating agent able to accelerate the repigmentation process in vitiligo, and promote more rapid and sustained repigmentation when used in combination with NB-UVB phototherapy.

Character count (excl headings and spaces): 2,346

Abstract N°: 4820

Efficacy and tolerability of a 2-MNG-containing serum in the treatment of facial solar lentigo over 3 months of daily applications

Pinto Pedro[1], Delphine Kerob*[2], Guenaelle Ledantec[2], Manuel Fitas[1]

[1]PhD Trials, Lisbon, Portugal

[2]La Roche-Posay Laboratoire Dermatologique, Levallois-Perret, France

Introduction & Objectives:

Solar lentigo (SL) is a highly frequent skin condition experienced, over time, by a vast majority of people on sun exposed areas. Earlier onset and increased visibility in terms of darkness and number of lesions are seen in people with high cumulative UV exposure over life. SL is a chronic condition with the spontaneous tendency to worsen over time and recure after removal. Topical dermocosmetic depigmenting products are convenient long-term solutions to manage the condition, optionally associated with intermittent procedures. Here, a novel serum containing 2-MNG, an ingredient that quenches melanin precursors as well as Niacinamide, Cystoseira Tamariscifolia extract, LHA, Carnosine, Retinyl Palmitate and Dipotassium Glycyrrhizate has been tested on SL.

Materials & Methods:

This was a single center study conducted in Portugal from February to May 2024 in 22 adult subjects (phototypes I to III) with SL on the face. Subjects had to have a score of at least 5 on a 0-10 scale and applied the serum twice daily in the morning and in the evening for 3 months together with a UVA filtering SPF50 sunscreen in the morning and at midday. Efficacy and tolerability were assessed monthly by the investigator and the subjects together with the objective documentation of the effect using high quality standardized pictures.

Results:

The SL score assessed by the investigator decreased by 17,2% at D84 (from 7,4 to 6,1; $p < 0,05$) and was significant as soon as D56, consistent with the self-perception of an improvement (Patient Global Assessment) by 95% of subjects, quoted at least moderately improved in 59% of cases. A significant decrease of 59,5% of the PUSH-D global score, a standardized stigmatization score was also observed. No local intolerance was reported across the study and cosmeticity and efficacy of the serum were positively valued by the subjects on several criteria. High quality pictures documenting best and mean cases illustrate the clinical effect.

Conclusion:

The study showed that a new serum containing 2-MNG is effective and well tolerated in the management of SL over 3 months of application together with a UVA filtering SPF50 sunscreen, improving the stigmatization score as well. These findings support the use of this serum containing 2-MNG, an ingredient which acts by quenching melanin precursors as an effective and safe dermocosmetic solution for hyperpigmentation disorders and namely solar lentigo.

Abstract N°: 4824

Randomized controlled investigator-blinded comparative study of the efficacy and tolerability of a new 2-MNG containing serum versus Cysteamine 5% in the treatment of melasma

mukta sachdev[1], Mukesh Ramnane[1], Andrew F. Alexis[2], Delphine Kerob*[3], Nabil Kerrouche[3], Thierry Passeron[4]

[1]MS Clinical Research Pvt. Ltd, Ulsoor, Bangalore, India

[2]Weill Cornell Medicine, Department of Dermatology, New York, United States

[3]La Roche-Posay Laboratoire Dermatologique, Levallois-Perret, France

[4]Nice University Hospital Center, Department of Dermatology, Côte d'Azur University, INSERM U1065, C3M, Nice, France

Introduction & Objectives:

Melasma is a common acquired hyperpigmentation disorder characterized by irregular light to dark brown patches on the face. Its pathogenesis is not yet completely understood, although there are some known triggering factors such as sun exposure, pregnancy, hormonal changes.

This study compared the efficacy and safety of a new 2-MNG containing dermocosmetic serum (TP)*versus* Cysteamine 5% cream (CC) in the management of melasma.

Materials & Methods:

A 4-months randomized investigator-blinded, controlled study has been conducted in India on subjects with mild-to-severe melasma. Following a 2–4-week wash-out period, group TP received the 2-MNG containing serum twice daily and group CC received Cysteamine 5% cream once daily for 15 minutes in the evening followed by rinsing and the application of a hydrating cream. Both groups received the same high SPF/UVA sunscreen to be applied twice a day. Primary endpoint was modified Melasma Area and Severity Index (mMASI) score improvement after 4 months. Secondary efficacy endpoints included Investigator Global Assessment (IGA), colorimetry, and additional skin quality parameters. The impact on quality of life (QoL) and local tolerance were also assessed.

Results:

The study included a total of 127 subjects. mMASI score at baseline was 11.15 and 10.93 for TP and CC groups respectively. At 4 months, mMASI score decreased significantly with both TP and CC (-4.19 *vs* -3.81 respectively), with no statistical differences between groups. IGA improvement was significantly higher with TP compared to CC (-51.9% *vs* -39.1%; p=0.0163) with 2 times more clear/almost clear subjects with TP compared to CC (17.5%*vs* 7.8% respectively; p=0.0163). Significant difference in favor of TP was seen in skin tone evenness at month 2 and 3 and skin brightness at month 2 to 4 ($p<0.05$). Significant improvements in ITA were observed overtime. After 4 months, QoL was significantly ($p<0.05$) improved in both groups and both products were very well tolerated.

Conclusion:

The 2-MNG-containing dermocosmetic serum provided a significant reduction of the mMASI score after 4 months of treatment of melasma showing a non-inferiority when compared to Cysteamine 5% cream (CC). This significant improvement was confirmed by colorimetric assessment. The 2-MNG containing serum was significantly superior in terms of IGA, compared to Cysteamine 5% and both products showed a significant improvement of QoL and a very good tolerance. These data support the role of this melanin-quencher containing serum as an effective and safe new option for treating pigmentary disorders including melasma.

Abstract N°: 4825

Comparison of a 2-MNG-containing depigmenting serum vs hydroquinone 4% in the treatment of melasma and in maintenance post-hydroquinone 4%: a monocentric randomized controlled study

Thierry Passeron[1], Delphine Kerob*[2], Guenaelle Ledantec[2], Alessandro Nascimento[3], Alessandro R do Nascimento[3], Samir Salah[2], Andrew F. Alexis[4]

[1]Nice University Hospital Center, Department of Dermatology, Côte d'Azur University, INSERM U1065, C3M, Nice, France
[2]La Roche-Posay Laboratoire Dermatologique, Levallois-Perret, France
[3]CIDP Brazil, Rio de Janeiro, Brazil
[4]Weill Cornell Medicine, Department of Dermatology, New York, United States

Introduction & Objectives:

Hydroquinone 4% (HQ4%) is the gold standard melasma treatment. Here, an innovating serum containing 2-MNG, an ingredient that quenches melanin precursors (Group A), has been compared to HQ4% (Group B) in the treatment of facial melasma. The 2-MNG-containing serum was also evaluated as a maintenance therapy after HQ4% treatment.

Materials & Methods:

A randomized, investigator blinded, parallel group study, has been conducted in Brazil from August to March 2024. In the 3-months treatment step, Group A received the 2-MNG-containing serum twice a day and Group B received Hydroquinone 4% nightly. Following the treatment step, a sub-group of the HQ4% Group received the 2-MNG serum for a 3-months maintenance therapy. All patients applied the same tinted high SPF, UVA PF and VL-PF sunscreen at least in the morning and at midday. Subjects had to have facial epidermal/mixed melasma of any severity. Evaluations were conducted on mMASI score and local tolerance.

Results:

The study included 109 female subjects (mean age 43.2, range 30-51 years) with diverse phototypes (47% I to III and 53% IV). During the 3-months treatment, both groups showed a significant improvement of mMASI at D84 (-28.5% for Group A, -34.4% for Group B, $p<0.001$) with mean change from baseline of -2.16 and -2.56; improvement was significant since D28. No statistical difference was observed between the two groups at any visit and the non-inferiority, with a predefined threshold of 1.3, was demonstrated at D84 (mean difference 0.46, 95% CI [-0.25,1.17]).** Group B showed significantly more local irritation at D28 (6.0% for Group A *vs.* 21.4% for Group B). The sub-group using HQ4% for 3 months then the 2-MNG-containing serum in maintenance over 3 months showed a continuous improvement of the mMASI score overtime while maintaining the benefits of HQ4% without rebound effect. At D168, a decrease of -51.8% of the mMASI score ($p<0.001$) was observed with no local intolerances.

Conclusion:

This study shows that a new depigmenting 2-MNG serum is non-inferior to HQ4% for facial melasma over 3 months of use, while being superior in terms of tolerability. Furthermore, this serum effectively maintained the benefits of HQ4% without rebound effect and with great tolerability. Given the body of literature showing efficacy of HQ4% in melasma, this study strongly suggests that this 2-MNG-containing serum in association with a

sunscreen efficiently covering UVAs and visible light, offers an effective solution for the long-term management of melasma.

Abstract N°: 4849

Atypical Neonatal Depigmentation: Unravelling the Vitiligo-Systemic Lupus Erythematosus-Hydroxychloroquine Axis

Aniket Goswami[1], Shikha Thakur[1], Binod Thakur[2]

[1]North Eastern Indira Gandhi Regional Institute of Health & Medical Sciences, Dermatology, Venereology & Leprosy, Shillong, India
[2]Nazareth Hospital, Dermatology, Shillong, India

Introduction & Objectives: Vitiligo is an acquired depigmenting disorder caused by melanocyte loss, with a multifactorial autoimmune pathogenesis involving genetic and environmental factors. Although typically presenting in early adulthood, congenital vitiligo is exceedingly rare. Systemic lupus erythematosus (SLE) and vitiligo share overlapping genetic susceptibilities. Hydroxychloroquine (HCQ), a key therapy in SLE, may influence melanogenesis due to its melanin-binding properties. We describe a rare case of neonatal depigmentation in a newborn of a mother with SLE on HCQ, exploring possible aetiopathogenic associations.

Materials & Methods: A case-based descriptive analysis was undertaken. Clinical evaluation was conducted at birth and during follow-up at three months. Maternal history, antenatal records, and neonatal examination findings were reviewed. Due to financial limitations, genetic testing, histopathology, and autoimmune profiling could not be performed.

Results: A full-term neonate was delivered to a 29-year-old woman with Fitzpatrick skin type V and a five-year history of SLE, maintained on HCQ 400 mg daily throughout pregnancy. The neonate exhibited generalised depigmentation over the face, trunk, and limbs, with no systemic abnormalities. Family history for pigmentary disorders was negative, and serology for anti-Ro/SSA antibodies was non-reactive in the mother. Progressive, patchy repigmentation occurred by three months, predominantly on sun-exposed areas. The clinical presentation, alongside absence of ocular and hair hypopigmentation, supported a diagnosis of congenital vitiligo, while other differential diagnoses such as piebaldism, oculocutaneous albinism, and nevus depigmentosus were considered less likely.

Conclusion: This case highlights a rare presentation of probable congenital vitiligo in a neonate born to a mother with SLE on HCQ therapy. The findings suggest a potential interaction between inherited susceptibility and intrauterine immunomodulation or melanocyte disruption by HCQ. Awareness of such presentations is essential for accurate diagnosis, appropriate counselling, and improved understanding of neonatal pigmentary disorders.

Abstract N°: 4926

Prevalence of immune-mediated inner ear disease in non-segmental vitiligo: a cross-sectional study

Helena Marchioro*[1, 2], Caio Cesar Silva De Castro[2], Aline Turatti Chiesorin[1], Elaine Weiss Bindi[1], Isabella Gizzi Jiacomini[3], Helio Miot[4]

[1]Santa Casa Curitiba, Dermatology , Curitiba, Brazil
[2]Hospital de Dermatologia Sanitária do Paraná - São Roque, Dermatology , Piraquara, Brazil
[3]Federal University of Paraná - Polytechnic Center, Basic Pathology, Curitiba, Brazil
[4]Unesp Campus de Botucatu, Botucatu, Brazil

Introduction & Objectives:

Sensorineural** hearing loss (SNHL) is associated with non-segmental vitiligo (NSV); however, the etiology of SNHL has not been explored. The concomitance of autoimmune disease in vitiligo patients demands the investigation of immune-mediated inner ear disease (IMIED) as a cause of SNHL in NSV. The anti-Hsp70 antibody is a serological marker of IMIED, which may help in the early diagnosis of this disease.

Objective: To evaluate the prevalence of IMIED in NSV patients.

Materials & Methods:

Cross-sectional study involving NSV adult patients and a control group, evaluated through audiometry and serological dosage of the anti-Hsp70 antibody.

Results:

In total, 112 cases and 23 controls were evaluated. Bilateral SNHL was found in 28 (25.0%; 95%CI 17.9%–32.1%) patients and in 1 (4.3%) control (p=0.019). Six cases (5.4%; 95%CI 2.7%–8.0%) presented bilateral SNHL of unexplained aetiology, and anti-Hsp70 antibody positivity, fulfilling the diagnostic criteria for IMIED. No controls met the diagnostic criteria for IMIED. Serum anti-Hsp70 antibodies were higher in cases with IMIED: median 220.9 vs. 85.1 ng/ml (p=0.001).

Conclusion:

The prevalence of IMIED is remarkable in NSV adult patients.

Table 1
Main demographic data and audiometric test results from the sample.

Variables	Values			
	Cases (n = 112)		Controls (n = 23)	
Sex, n (%)				
Female	76	67.9%	19	82.6%
Male	36	32.1%	4	17.4%
Age, years				
Mean (sd)	47.8	11.1	34	10.2
Age range	20 to 64		22 to 58	
Audiometric tests, n (%)				
Normal	67	59.8%	19	82.6%
Unilateral SNHL*	10	8.9%	1	4.3%
Bilateral SNHL	28	25.0%	1	4.3%
Mixed hearing loss	7	6.3%	1	4.3%
Conductive hearing loss	0	0%	1	4.3%
Bilateral SNHL, aetiology, n (%)				
Occupational	3	2.7%	0	0
Metabolic	4	3.6%	0	0
Ototoxic	2	1.8%	0	0
Infectious	2	1.8%	0	0
Undefined	17	15.2%	1	4.3%
IMIED** diagnostic criteria, n (%)				
Yes	6	5.4%	0	0
No	106	94.6%	23	100%

* SNHL: sensorineural hearing loss.
** IMIED: immune-mediated inner ear disease.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 5032

Machine Learning-Based Prediction of Treatment Outcomes and Recurrence Risk in Melasma Using High-Resolution Imaging Data

Monisha Madhumita*[1], Anjali Ancy[2], Subitchan Ponnarasu[1]

[1]Saveetha Medical College, Chennai, India
[2]Vellore Institute of Technology, Vellore, India

Introduction & Objectives:

Melasma is a common, chronic hyperpigmentation disorder with unpredictable treatment outcomes and frequent recurrence. Traditional clinical predictors often lack sufficient precision. We hypothesized that machine learning (ML) models trained on large-scale high-resolution imaging data could predict treatment outcomes and recurrence risk with high accuracy, facilitating individualized treatment strategies.

Materials & Methods:

A retrospective cohort study was conducted using a dataset of 45,000 anonymized dermatoscopic and clinical images of patients diagnosed with melasma, collected across five tertiary dermatology centers over seven years. Each case included baseline imaging, treatment modality (e.g., topical agents, chemical peels, laser therapies), demographic variables, and follow-up outcomes at 3, 6, and 12 months.

Image pre-processing involved standardization (color normalization, illumination correction) and augmentation (rotation, scaling) to enhance model robustness. A convolutional neural network (CNN) architecture based on a modified EfficientNet backbone was employed for feature extraction. Supervised learning was performed to predict two primary outcomes: (1) likelihood of ≥50% improvement in Melasma Area and Severity Index (MASI) and (2) recurrence within 12 months. The model was trained using an 80/10/10 split for training, validation, and testing datasets, respectively. Cross-validation and hyperparameter tuning were performed to prevent overfitting.

Performance metrics included accuracy, area under the receiver operating characteristic curve (AUROC), precision, recall, and F1-score. Grad-CAM techniques were used for model interpretability, highlighting imaging features most predictive of outcomes.

Results:

The final model achieved an AUROC of 0.91 (95% CI, 0.89–0.93) for predicting treatment response and 0.88 (95% CI, 0.86–0.90) for recurrence prediction on the independent test set. The model's sensitivity and specificity for predicting ≥50% MASI improvement were 89% and 85%, respectively. Recurrence risk prediction achieved 84% sensitivity and 82% specificity. Key predictive imaging features included epidermal vs dermal pigmentation distribution, vascular patterns, and textural irregularities.

Model performance was significantly superior to clinical assessment alone (AUROC 0.73 for expert panel, $p < 0.001$). Incorporating demographic variables (age, Fitzpatrick skin type, hormonal factors) into the model yielded only marginal gains, indicating that imaging features were the dominant predictors.

Conclusion:

A machine learning model based on imaging data accurately predicts melasma treatment outcomes and recurrence risk. This approach offers a scalable, non-invasive tool to personalize melasma management, optimize

therapeutic interventions, and counsel patients regarding prognosis. Prospective validation and integration into clinical workflows are warranted.

Abstract N°: 5077

Reporting of Skin Color in Randomized Controlled Trials on Vitiligo: A Systematic Review

Meghna Varambally*[1], Nawar Tarafdar[1], Chaocheng Liu[2]

[1]Schulich School of Medicine and Dentistry, Western University, London, Canada
[2]University of British Columbia, Department of Dermatology and Skin Science, Vancouver, Canada

Introduction & Objectives:

Vitiligo is a chronic skin condition characterized by depigmented patches resulting from autoimmune destruction of melanocytes. Given the disproportionate impact of vitiligo on patients with skin of color (SOC), diverse representation in clinical trials is important to improve clinical outcomes and foster equitable care. This review aimed to determine the composition of randomized control trials (RCT) in vitiligo that report on skin color, race, ethnicity, or related terms.

Materials & Methods:

MEDLINE, EMBASE, Cochrane Library, and Scopus databases were searched from inception to March 29, 2025. Robust RCTs involving adult patients with vitiligo and the diagnosis or treatment of vitiligo were included in the study. Title/abstract, full-text screening, and data extraction were conducted independently by two reviewers. Quality of evidence was assessed using the Cochrane Risk of Bias 2 tool.

Results:

Thirty-seven studies (*n*=2536) met the inclusion criteria and were included in the study. Across studies, participants ranged in age from 18-80 years and 59% of participants were female. Of included studies, 46% (17/37) of studies reported skin phototype and/or race/ethnicity. Among participants who reported skin type, 78.1% were classified as having Fitzpatrick skin type (FST) III-IV, followed by I-II (13.8%) and V-VI (8.2%). Only 43.6% (7/16) of studies included Fitzpatrick skin types V-VI in their trials. Notably, of the studies that did not report skin phototype or race/ethnicity, 95% (19/20) were conducted in countries with predominantly non-White populations (i.e., countries outside of the United States, Australia, and Europe). A greater proportion of RCTs were conducted in these countries after 2015 compared to prior to 2015. In RCTs conducted in predominantly White countries, 89% (8/9) reported participants' skin phototype.

Conclusion:

Our findings highlight the need for consistent reporting of skin phototypes and increased representation of individuals with FST V-VI in vitiligo RCTs. Given the possible influence of skin phototype on response to treatment, representation of darker skin phototypes is needed to inform evidence-based guidelines and tailor treatment regimens to patients with SOC. Limitations include inconsistent grouping of Fitzpatrick skin types among studies and exclusion of the pediatric population.

Abstract N°: 5140

A novel dermocosmetic routine containing Vitamin B3 and 2-Mercaptonicotinyl Glycine significantly improves melasma after 3 months of daily use and provides a similar treatment outcome after 6 months compared to a 3-month treatment course following a switch from a 3-month treatment with a Kligman's trio

Thierry Passeron[1], Natalia Kovylkina*[2], juliane rocio[3], Tania Cestari[4], Mariana Feiges[5], erika fernandes[5], Claire DELOCHE[2], Elisa Carberlotto[2]

[1]CHU Nice, Nice, France
[2]Vichy Laboratoires, Levallois-Perret, France
[3]Institute of Dermatology & Aesthetics of Rio de Janeiro, Rio de Janeiro, Brazil
[4]Rio Grande do Sul Federal University, Porto Allegre, Brazil
[5]LDB Brazil, Rio de Janeiro, France

Introduction & Objectives:

Melasma is a common chronic refractory pigmentation disorder. Kligman combinations (KC) are considered to be the most effective approach but have many limitations. A dermocosmetic (DC) routine combining a serum and a cream, both containing Vitamin B3 and 2-Mercaptonicotinyl Glycine was developed for melasma.

This study assessed the benefits of DC routine compared to KC (fluocinolone, tretinoin and hydroquinone) in melasma.

Materials & Methods:

A randomized, 6-month study was conducted in women > 18 years with symmetrical epidermal melasma according to MASI for at least one year. After 4 weeks of wash-out, subjects were randomized to Group A (morning: serum; evening cream for 6 months) or to Group B (1st 3 months: morning: skin hydrating gel; evening: KC followed by 3 months DC routine regimen); all subjects also applied a sunscreen with a SPF 50+ in the morning. Assessments at all visits included MASI, mMASI, IGA, skin radiance and fine wrinkles, local tolerance and quality of life (QoL) using MELASQOL.

Results:

91 women (Group A: 46; Group B: 45) were recruited. The mean age was 44±6 years; mainly phototype III (30%) and IV (36%) were recruited.

While both regimens significantly ($p<0.05$) reduced MASI at Month 3 (Group A: -19.5%, Group B: -30.5%) from baseline, a clinically relevant but not statistically significant difference in favour of KT was observed. Three months after the switch (Month 6), both Group A (-38.1%) and Group B (-41.2%) provided a similar significant ($p<0.05$) percentage reduction of MASI from baseline with no between-group difference. Results for mMASI and IGA showed similar results. QoL had significantly ($p<0.05$) improved in both groups after 6 months. So did skin radiance and fine wrinkles. Global tolerance was better with the routine (Group A: 90% of subjects with no tolerance issues; Group B: 66%) after 6 months.

Conclusion:

Both DC routine and KT provide significant improvement of melasma after 3 months of use. DC further improves

melasma when replacing KT for 3 more months. After 6 months, the 2 regimens provided similar improvement with a better tolerance in the groups who received DC from the beginning.

IDC routine may be proposed as an alternative to KT in melasma, as a long-term or as a replacement therapy after an initial 3-month KT use.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 5276

Investigating the role of bimatoprost in vitiligo therapy: a systematic review and meta-analysis

Aliyah King[1], Siddhartha Sood[2], Monica Li*[3, 4]

[1]University of Ottawa, Faculty of Medicine, Ottawa , Canada
[2]University of Toronto, Temerty Faculty of Medicine, Toronto, Canada
[3]University of British Columbia, Department of Dermatology and Skin Science, Vancouver, Canada
[4]Vancouver Skin MD, Vancouver, Canada

Introduction & Objectives:

Vitiligo is an immune-mediated pigmentary disorder marked by melanocyte destruction. It carries significant psychosocial impact, particularly among patients with skin of color. Bimatoprost, a prostaglandin F2-alpha analogue traditionally used in glaucoma and eyelash hypotrichosis, has recently been investigated for its potential role in vitiligo treatment. This systematic review and meta-analysis synthesizes current evidence on the efficacy and safety of topical bimatoprost in managing vitiligo.

Materials & Methods:

EMBASE, MEDLINE, and Pubmed were searched from inception to April 12th, 2024. Non-English and incomplete studies were excluded. Study quality was assessed using the Grading of Recommendations, Assessment, Development, and Evaluation scale.

Results:

Of 46 identified studies, 8 met inclusion criteria, comprising 111 patients (mean age: 38.3 years; 65% female). Combination therapies involving bimatoprost achieved the highest rates of >50% repigmentation (40%). Bimatroprost therapies significantly reduced vitiligo surface area by 0.73 cm2 (95% CI, 0.27-1.19; I2 = 0%, P = .002) at 3 months. While not statistically significant, non-bimatoprost therapies reduced vitiligo surface area slightly more (-0.16 cm2, 95% CI, -0.89-0.57; I2 = 0%, P = 0.67). Patient satisfaction improved significantly to 7.14/10 (95% CI, 5.34-8.94, I2 = 80%; P < .00001). Although non-bimatoprost therapies showed a marginally higher satisfaction score (+0.17/10), this difference was not statistically significant (95% CI, -1.34-1.01, I2 = 0%, P = 0.78). Bimatoprost was well tolerated, with minimal adverse events such as hypertrichosis, pruritus, and burning. No changes in intraocular pressure were reported.

Conclusion:

Topical bimatoprost demonstrates promise as an adjunctive treatment for vitiligo, particularly in combination with modalities like narrowband UVB and fractional CO_2 laser. It offers improvements in repigmentation, surface area reduction, and patient satisfaction, with minimal adverse effects. However, its high cost and limited availability pose barriers to widespread adoption. Limitations include small sample sizes, heterogeneous protocols, and potential publication bias. Larger, well-designed trials are needed to validate its clinical utility.

Abstract N°: 5685

More Than Skin Deep: Quality of Life Impairment in UK Patients with Melasma

Shahd Elamin*[1], Rajani Nalluri[2]

[1]Belfast Health and Social Care Trust , Belfast , United Kingdom
[2]Varna Pigmentation , Manchester , United Kingdom

Introduction & Objectives:

Melasma is a chronic, acquired hyperpigmentation disorder that primarily affects sun-exposed facial skin. This condition can significantly impact quality of life (QoL), particularly in women and individuals with skin of colour (SOC). While numerous international studies have explored this psychosocial burden, no UK-based data currently exist. Cultural, environmental, and healthcare system differences highlight the need for region-specific insights. This study's aims are to assess the psychosocial impact of melasma in a UK cohort using validated QoL instruments, and to determine whether clinical severity correlates with reported impairment.

Materials & Methods:

A retrospective cross-sectional study was conducted across two dermatology centres. Patients diagnosed with melasma between August 2017 and August 2024 were identified. Demographic data (age, sex, ethnicity), clinical severity via modified Melasma Area and Severity Index (mMASI), and QoL outcomes using both the Dermatology Life Quality Index (DLQI) and the Melasma Quality of Life scale (MelasQoL) were collected. Spearman's correlation was used to assess relationships between mMASI, age, and QoL scores ($p<0.05$ significance threshold).

Results:

Twenty-five patients were included (88% female; 84% South Asian; mean age 41.9 ± 8.6 years). Clinical severity was predominantly mild (mean mMASI: 4.9), yet QoL impairment was disproportionately high. The MelasQoL mean score was 58.3 (SD: 11.9), with 80% scoring above the severe impairment threshold of 47, and 20% scoring the maximum of 70. DLQI median score was 16.0 (IQR: 8.0–22.0), indicating moderate to severe QoL impact. No significant correlation was found between mMASI and MelasQoL ($\rho = -0.185$, $p = 0.38$) or mMASI and DLQI ($\rho = -0.139$, $p = 0.51$). Age was similarly not associated with QoL outcomes.

Conclusion:

This first UK-based assessment of melasma's psychosocial impact highlights a significant quality-of-life burden, especially among South Asian women, despite predominantly mild disease. Comparison with international data showed no significant difference in QoL burden, suggesting a comparable psychological impact of melasma globally. These results emphasise the importance of incorporating disease-specific QoL tools, like MelasQoL, into routine dermatological assessment. These findings call for increased clinician awareness and the need for further large-scale, diverse studies to better understand the impact and guide more culturally competent patient care.

Abstract N°: 5816

Extensive Cicatricial Alopecia in Poikilodermatous Lichen Planus Pigmentosus: A Case Report

Keshav Yadav*[1], niti khunger[1]

[1]Safdarjung Hospital, New Delhi, India

Extensive Cicatricial Alopecia in Poikilodermatous Lichen Planus Pigmentosus: A Case Report

Introduction & Objectives:

Lichen planus pigmentosus (LPP) is a rare variant of lichen planus, predominantly affecting individuals with darker skin tones. It presents as hyperpigmented macules or patches, often on sun-exposed areas such as the face and neck. An even rarer subtype is poikilodermatous LPP, characterized by a combination of dyschromia, telangiectasia, and skin atrophy, leading to a characteristic appearance. While LPP has been associated with frontal fibrosing alopecia (FFA), the occurrence of extensive cicatricial alopecia in poikilodermatous LPP is exceedingly uncommon. Here, we report a case of a 33-year-old male with poikilodermatous LPP accompanied by extensive cicatricial alopecia.

Materials & Methods: Not applicable

Results: Case Synopsis

A 33-year-old male presented with a 5–6 year history of progressive brownish hyperpigmentation over the head and neck regions. The pigmentation first observed over at the temples and gradually extended to involve the entire face, neck, and scalp. Later on, the patient noted progressive hair loss over the scalp, eyebrows, beard area and trunk from the last 2 years. There was no history of oral erosions, violaceous lesions on the body, or nail changes suggestive of lichen planus. Also no other significant medical, family or past history.

On physical examination, the patient exhibited brownish-grey hyperchromic macules interspersed with hypochromic atrophic macules and telangiectasias over the face, neck, and scalp. Nearly complete hair loss was observed on the scalp, eyebrows, and trunk. Dermoscopic evaluation revealed brown dots and globules with exaggerated pseudo-reticular pigment network, white structureless atrophic areas, background erythema increased and perifollicular pigmentation over face and scalp. Histopathological examination demonstrated loss of hair follicles, epidermal atrophic changes, interface dermatitis pattern with band like lympho-histiocytic infiltrate and prominent melanin incontinence and dilated blood vessels in superficial confirming lichenoid pattern. Based on these, diagnosis of Poikilodermatous lichen planus pigmentosus with cicatricial alopecia was made.

Conclusion:

This case highlights a rare presentation of poikilodermatous LPP in a male patient with extensive cicatricial alopecia. Clinicians should be aware of this unusual variant and consider it in the differential diagnosis of patients presenting with poikilodermatous changes and scarring alopecia. Early diagnosis and intervention are essential to prevent permanent hair loss and manage the condition effectively.

Abstract N°: 5851

Leukoderma acquisitum centrifugum: A report of 4 cases among Filipinos

Aneriza Lim[1], Johannes Dayrit[1]

[1]Research Institute for Tropical Medicine, Dermatology, Muntinlupa City, Philippines

Introduction & Objectives:

Leukoderma acquisitum centrifugum (LAC), or halo nevus (HN**),** is a benign melanocytic lesion marked by a depigmented halo surrounding a nevus. It often appears in childhood or adolescence, affecting ~1% of the population, and may present as solitary or multiple symmetric lesions at varying stages. Though HN and vitiligo feature melanocyte loss, HN is distinct—lacking the oxidative stress profile characteristic of vitiligo. Histopathology reveals epidermal thinning, maturing nests of nevus cells without mitoses, and a dense CD8+ lymphocytic infiltrate, indicating immune mediated response. This case series describes four Filipino patients with HN, highlighting clinical patterns.

Materials & Methods:

Case 1: A 20-year-old male reported two lesions on the chest and one on the cheek measuring 1x1.5 mm, 1x3 mm, and 1x1 mm, respectively, for one year. Lesions began as nevi that developed surrounding white patches. Histopathology showed few nests of melanocytes at the dermoepidermal junction surrounded by a lichenoid inflammatory infiltrate of lymphocytes.

Case 2: A 27-year-old female reported four lesions—two on the right temporal area measuring 1x1 mm and 1x1.5 mm, one on the abdomen measuring 2x2 mm, and one on the chest measuring 3.5x2 mm. Brown nevi were present since childhood, with the depigmented halos appearing one year prior to consult. Biopsy was done on chest and abdominal lesions. Histopathology revealed epidermal thinning, dermal melanocytes, superficial perivascular inflammation, and interstitial mucin deposition.

Case 3: A 19-year-old female had a congenital nevus on the left zygomatic area, with a depigmented halo measuring 3x3 mm appearing 1 month prior. Family history of HN in a maternal aunt, but no history of vitiligo. Histopathology showed mild epidermal thinning and dispersed nests of pigmented melanocytes in the mid to lower dermis.

Case 4: A 40-year-old female developed a white halo on a preexisting 1x1 mm nevus on the right nasolabial fold 25 years prior to consult (PTC). The brown nevi regressed and depigmentation resolved over 5 yrs. Two years PTC, her 5x2x0.5 cm congenital nevus on the left mandibular area developed white areas and white hairs. Subsequently other new depigmented halos appeared on the nevi on the face and abdomen. To date, all four patients do not show clinical manifestations of vitiligo.

Results:

Dermoscopy of the cases showed features consistent with halo nevi, with a central reticular pigment network and a surrounding pinkish-white depigmented halo, reflecting immune-mediated melanocyte destruction and inflammation. Cases 1 to 3 were treated with 0.1% tacrolimus ointment. Cases 1 and 2 also underwent punch excision of selected lesions, while Case 3 was managed conservatively with tacrolimus and topical superoxide dismutase with copper and zinc cream without excision. Case 1 who underwent punch excision of nevus and topical tacrolimus achieved complete repigmentation after 1 year of treatment.

Conclusion:

LCA presents with varied clinical manifestations, including solitary and multiple acquired lesions, often symmetric and at different stages. HN may occasionally occur in patients with vitiligo and is more frequently seen when multiple HN are present, though this association is inconsistent. Literature supports multiple treatment approaches—topical immunomodulators (e.g. tacrolimus), 308-nm excimer light, NB-UV, and surgical methods for resistant or cosmetically significant cases.

Abstract N°: 5942

Multifocal Acquired Pigmentation in a Patient with Myelodysplastic Syndrome: A Diagnostic Challenge

Aleix de Vargas-Machuca[1], Cristina Has[1]

[1]University Hospital Freiburg - Dermatology, Freiburg im Breisgau, Germany

Introduction & Objectives

Acquired mucocutaneous pigmentation in adults may result from a broad spectrum of causes, including physiological changes, systemic diseases, medication side effects, and benign or malignant melanocytic disorders. Careful assessment is essential, especially in elderly or immunocompromised patients, to rule out malignancy and identify rare syndromic entities. We report a case of multifocal oral and nail pigmentation in an elderly patient with myelodysplastic syndrome (MDS), initially raising concern for drug-induced changes.

Materials & Methods

A 77-year-old woman with low-risk 5q-deletion MDS was referred to our dermatology outpatient clinic for evaluation of progressive oral and nail pigmentation. She reported the appearance of dark macules on the gingiva three years prior, followed by longitudinal pigmented bands on both great toenails and the right thumbnail in mid-2023. A biopsy from 2022 from the pigmented oral mucosa showed superficial melanosis with underlying scarring, with no evidence of malignancy. Treatment with lenalidomide began in September 2023. She also reported burning oral pain and taste disturbances following the initiation of chemotherapy.

Results

Clinical examination revealed multiple sharply demarcated, blackish macules on the oral mucosa (lips, gingiva, palate) and longitudinal melanonychia without Hutchinson’s sign on the affected nails. No genital or skin lesions were present. Given that pigmentation preceded chemotherapy, drug-induced melanosis was considered unlikely. The benign histopathology, absence of systemic pigmentation, and lack of malignant features supported the diagnosis of a rare mucocutaneous pigmentation disorder. An appointment was scheduled for watch-and-wait follow-up.

Conclusion

In the absence of systemic involvement or malignancy, the clinical constellation of oral and nail pigmentation in this elderly patient is most consistent with Laugier-Hunziker syndrome (LHS) — a rare, acquired, benign pigmentary disorder. This case underscores the importance of thorough history-taking and histopathological correlation when assessing pigmentary changes in patients with complex hematologic conditions. LHS remains a diagnosis of exclusion and should be considered when no other cause is identified.

Abstract N°: 5981

Risankizumab, but not Guselkumab, Promotes Extensive Vitiligo Repigmentation in a Patient with Psoriasis Vulgaris: A Case Report

Adriane Reichert Faria[1, 2], Marcia Kszan[3], Helio Miot[4]

[1]Santa Casa Curitiba, Curitiba, Brazil

[2]Pontifical Catholic University of Paraná, Curitiba Campus, Curitiba, Brazil

[3]Federal University of Parana, Curitiba, Brazil

[4]Unesp Campus de Botucatu, Botucatu, Brazil

Introduction & Objectives:

Interleukin-23 (IL-23) levels have been reported to be significantly elevated in patients with vitiligo and positively correlate with both disease activity and duration, suggesting IL-23 as a potential therapeutic target.

Previous reports on using the anti-IL-12/23p40 monoclonal antibody ustekinumab in vitiligo include a few cases of repigmentation, although one instance of the novo vitiligo has also been described. Regarding selective IL-23p19 inhibitors, the literature is limited to a single case of sucessfull treatment with tildrakizumab, with no prior reports involving risankizumab or guselkumab.

Here, we report a case of vitiligo that responded to treatment with the humanized IgG1 monoclonal antibody risankizumab, but not to guselkumab, in a patient with concomitant psoriasis vulgaris.

Materials & Methods:

This is a case report supported by a comprehensive literature search conducted on the PubMed eletronic database unsing the keywords “vitiligo”, “IL-23 inhibitors” and “biologics”.

Results:

A 55-year-old woman with a 23-year history of plaque, genital, and scalp psoriasis, and vitiligo of 2-3 years’ duration, was initially treated with guselkumab for severe psoriasis. After 8 months, she achieved a Psoriasis Area Severity Index (PASI) 83 response and significant improvement in psoriatic arthritis. However, there was no noticeable change in vitiligo lesions during this period, although no new lesions developed.

Following discontinuation of guselkumab due to the loss of private health insurance, adalimumab – a first-line option in the public health system – was prescribed. However, after only two weeks of treatment, it became unavailable, prompting a switch to risankizumab.

After 8 weeks on risankizumab, the patient reported significant vitiligo repigmentation and further improvement in psoriasis, with only a small residual genital plaque. After 7,5 months, she achieved complete clearance of psoriasis (PASI100) and marked vitiligo repigmentation was observed on the face, trunk, extremities and limbs (64% reduction in Vitiligo Area Scoring Index - VASI). During this entire period no topical or systemic medication was used aiming vitiligo treatment.

Conclusion:

IL-23 plays a recognized pathogenic role in several inflammatory skin diseases including psoriasis, hidradenitis suppurativa, lichen planus and pityriasis rubra pilaris. Elevated IL-23 serum levels have also been documented in

patients with vitiligo. To date, only one case has described repigmentation in acrofacial vitiligo treated with tildrakizumab.

This is the first reported case of extensive vitiligo repigmentation during treatment with risankizumab in a patient with concomitant psoriasis.

Given the growing evidence implicating IL-23 in the pathogenesis of vitiligo, selective IL-23p19 inhibitors like risankizumab may represent a promising novel therapeutic option, warranting further investigation.

Abstract N°: 5986

Acquired Blaschkolinear Hyperpigmentation with Ipsilateral Neuralgia: A Rare Expression of Neurocutaneous Mosaicism

Salma Baraz[1], Baba Rime[1], Anouar Ilyass[1], Frikh Rachid[1], Hjira Naoufal[1]

[1]Military Hospital Mohammed V , Dermatology Venerelogy, RABAT, Morocco

Acquired Blaschkolinear Hyperpigmentation with Ipsilateral Neuralgia: A Rare Expression of Neurocutaneous Mosaicism

Introduction & Objectives:

Pigmentary disorders distributed along Blaschko's lines usually present at birth or in early childhood and are often asymptomatic. These patterns reflect embryonic cell migration and somatic mosaicism involving melanocytes. Acquired blaschkolinear pigmentary lesions in adults are exceedingly rare and may pose a diagnostic challenge, especially when associated with neurological symptoms. We present a unique case of adult-onset linear hyperpigmentation with ipsilateral neuralgia, suggesting an unusual form of neurocutaneous mosaicism.

Materials & Methods:

A 32-year-old woman with no significant medical history presented with unilateral linear hyperpigmentation and neuralgic pain. Dermatological and neurological assessments were conducted. Clinical photographs, dermoscopy, and skin biopsy were performed. Laboratory tests ruled out infectious and autoimmune causes. Nerve conduction studies and cervical spine MRI were also performed. A literature review was conducted using PubMed with keywords: "Blaschko lines", "pigmentation", "mosaicism", and "neurocutaneous disorders".

Results:

The patient presented with brown macules progressively appearing over her left upper limb, strictly following a Blaschkoid distribution. The lesions were asymptomatic but associated with burning pain and allodynia in the same territory. There was no preceding inflammation, vesiculation, or trauma. Dermoscopy showed reticulated brown pigmentation. Histopathology revealed increased basal layer melanin without inflammation. Infectious (VZV, HSV, syphilis) and autoimmune panels were negative. Neurological work-up showed no structural abnormalities.

The coexistence of pigmentary mosaicism and neuralgia in a Blaschkoid pattern supports the hypothesis of postzygotic mutations involving both melanocytes and neural crest-derived nerve cells. Such neurocutaneous mosaicism has rarely been reported in adults. A few cases in the literature describe similar presentations but without comprehensive dermatological and neurological documentation. The differential diagnoses included zoster sine herpete, incontinentia pigmenti, linear lichen planus pigmentosus, and post-inflammatory hyperpigmentation, all excluded based on clinical, histological, and laboratory findings. Our case underlines the potential link between pigmentary anomalies and segmental neural dysfunction when both share an embryologic origin.

Conclusion:

This case illustrates a rare acquired neurocutaneous mosaicism presenting as blaschkolinear hyperpigmentation with ipsilateral neuralgia. It expands the spectrum of adult-onset mosaic disorders and highlights the importance of considering embryologic pathways in the assessment of segmental dermatologic and neurologic symptoms.

Abstract N°: 5990

microneedling augments existing medical treatments with topical agents for chronic stable vitiligo

Ajith Cy[1]

[1]McMaster University, Hamilton, Canada

Introduction & Objectives:

Vitiligo is a chronic autoimmune disease that may affect 0.5 to 2% of population worldwide. Treatment options are not always satisfactory and can sometimes be a challenging condition to treat. Though microneedling has been there for many years, it is a relatively newer and emerging treatment option in vitiligo, and may help augment existing treatment strategies.

This retrospective chart review and literature review evaluates in a critical fashion the effectiveness, safety, patient satisfaction & cost effectiveness associated with incorporating microneedling to commonly used standard vitiligo treatments.

Materials & Methods:

Retrospective chart review of 10 patients in whom microneedling was used for vitiligo, and the author's experience using microneedling to augment existing vitiligo treatments were reviewed. Also using the keywords vitiligo and microneedling, a comprehensive literature review was conducted on PubMed, and studies from January 2018 up to March 2025 were reviewed and evaluated. The review of published reports and studies on microneedling for vitiligo, when done alone and along with conventional topical treatment agents like tacrolimus, corticosteroids, 5-fluorouracil, were done. Treatment success was monitored by the reported repigmentation rates, and adverse events reported, and patient reported outcomes were also noted.

Results:

The results show that microneedling may help significantly with repigmentation, especially when used in combination with conventional topical treatments. Microneedling in stable vitiligo was well-tolerated, with minimal and reversible adverse effects.

Microneedling demonstrates a favorable safety profile, with mild and manageable side effects such as pain, erythema, and temporary hyperpigmentation. Severe adverse events are rare, further supporting its safety as a treatment option that may augment existing topical treatments for vitiligo.

Conclusion:

Microneedling shows promise as an effective adjuvant treatment strategy along with standard topical treatments in stable vitiligo, demonstrating both safety and efficacy. Further studies looking at more controlled and randomized treatments are needed for further establishing its role in vitiligo treatment algorithm.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6065

Efficacy of Topical Timolol 0.5% in the Treatment of Post-Acne Erythema: A Pilot Study in Ten Patients

Rana Abdul Kadiru*[1]

[1]New Medical Centre, Sharjah, Dermatology, Sharjah, United Arab Emirates

Introduction & Objectives: Post-acne erythema (PAE) is a prevalent dermatological concern characterized by persistent erythematous macules or patches following the resolution of acne. PAE arises due to superficial capillary dilation and is most commonly seen in patients with Fitzpatrick skin types I to III. Various therapeutic modalities have been explored for PAE, pulsed dye lasers (PDL), intense pulsed light (IPL), and vascular-targeted topical agents. But these are either invasive, costly, or not easily accessible. Timolol maleate, a non-selective beta-adrenergic blocker used in ophthalmology, has emerged as a promising agent in dermatology. It has shown efficacy in the treatment of superficial vascular lesions- due to its vasoconstrictive, antiangiogenic, and anti-inflammatory properties. The objective of this pilot study is to evaluate the clinical efficacy and safety of topical timolol 0.5% solution in reducing the severity of PAE when applied once daily for 12-week period

Materials & Methods: This prospective, open-label pilot study was conducted at a dermatology outpatient clinic over a span of four months. A total of ten patients (5 females ,5 males), aged between 18 to 30 years, with moderate to severe post-acne erythema were enrolled. All participants had previously been treated for active acne and were free from active inflammatory lesions at the time of enrolment. Inclusion criteria -persistent facial erythema lasting for more than three months post-acne resolution, absence of active rosacea or other vascular disorders, and no use of oral or topical beta-blockers in the previous month. Exclusion criteria included pregnancy, lactation, history of hypersensitivity to beta-blockers, or underlying cardiac or respiratory conditions. Each participant was instructed to apply 1–2 drops of topical timolol maleate 0.5% ophthalmic solution to the affected areas once daily at bedtime. The solution was applied gently using clean fingertips to avoid systemic absorption through mucosal surfaces. Clinical evaluations were conducted at baseline and at 4, 8, and 12 weeks. Assessment included standardized digital photography under uniform lighting and settings, physician global assessment (PGA) using a 4-point erythema scale and patient self-reported improvement using a visual analogue scale (VAS) from 0% to 100%. Safety evaluations included the documentation of local and systemic side effects at each follow-up visit.

Results: All 10 participants completed the 12-week study protocol without premature discontinuation. By the 4th week, three patients demonstrated early signs of improvement with a mild reduction in facial erythema. By week 8, a more noticeable response was observed in 7 patients, with reduced redness. At the end of the 12-week treatment period, 9 out of 10 patients demonstrated visible improvement in erythema, as confirmed by photographic comparisons and PGA scores. Eight patients showed at least a one-grade improvement in erythema severity, with three achieving a two-grade improvement. The average VAS-reported improvement across all patients was 68%. No systemic side effects were reported.

Conclusion: This pilot study supports the hypothesis that topical timolol 0.5% solution helps in improvement in erythema observed in nine of ten participants, combined with minimal adverse effect. The small sample size, open-label design, and lack of a control group restrict the generalizability of the findings are the limitations of study.

Abstract N°: 6136

Assessing genotypic, phenotypic, and polygenic risk associations of autoimmune comorbidities in FinnGen patients with vitiligo

Simon Chen[1], Mor Pavlovsky[2], Mary Pat Reeve[3], Thierry Passeron[4, 5], Iltefat Hamzavi[6], Pranab Ghosh[7], Victoria Basey[8], Roni Adiri[9]

[1]Pfizer Inc, New York, NY, United States
[2]Tel Aviv Medical Center, Division of Dermatology, Tel Aviv, Israel
[3]University of Helsinki, Institute for Molecular Medicine Finland, Helsinki Institute of Life Science, Helsinki, Finland
[4]University Côte d'Azur, Centre Hospitalier Universitaire Nice, Department of Dermatology, Nice, France
[5]University Côte d'Azur, INSERM U1065, C3M, Nice, France
[6]Henry Ford Health, Detroit, MI, United States
[7]Pfizer Inc, Cambridge, MA, United States
[8]Pfizer Ltd., Surrey, United Kingdom
[9]Pfizer Pharmaceutical Israel LTD, Herzliya Pituach, Israel

Introduction & Objectives:

Vitiligo is an autoimmune skin disease characterized by the loss of skin pigmentation due to the destruction of melanocytes. Polygenic risk factors are known to contribute significantly to its development. Individuals with vitiligo often exhibit a higher prevalence of other autoimmune comorbidities, suggesting a shared genetic and immunological background. Utilizing data from the FinnGen biobank this study aimed to investigate the genetic, phenotypic, and polygenic risk associations of autoimmune comorbidities in Finnish patients with vitiligo.

Materials & Methods:

Individuals aged ≥12 years diagnosed with vitiligo were identified from the FinnGen biorepository (via ICD-8fi, -9fi, or -10 codes). A genome-wide association study (GWAS) aimed to detect genetic variants linked to vitiligo. Phenome-wide association studies (PheWAS) compared patients with vitiligo to matched controls, and patients with vitiligo in the top 20% of ≥1 predefined vitiligo polygenic risk score (PGS) distributions (those in the top 20% in risk of developing vitiligo) to those in the lower 80% to examine associations between vitiligo and autoimmune comorbidities using predefined endpoints. Analysis of the impact of PGS on the risk of comorbidities compared all patients with vitiligo and patients in/not in the top 20% of ≥1 vitiligo PGS distribution.

Results:

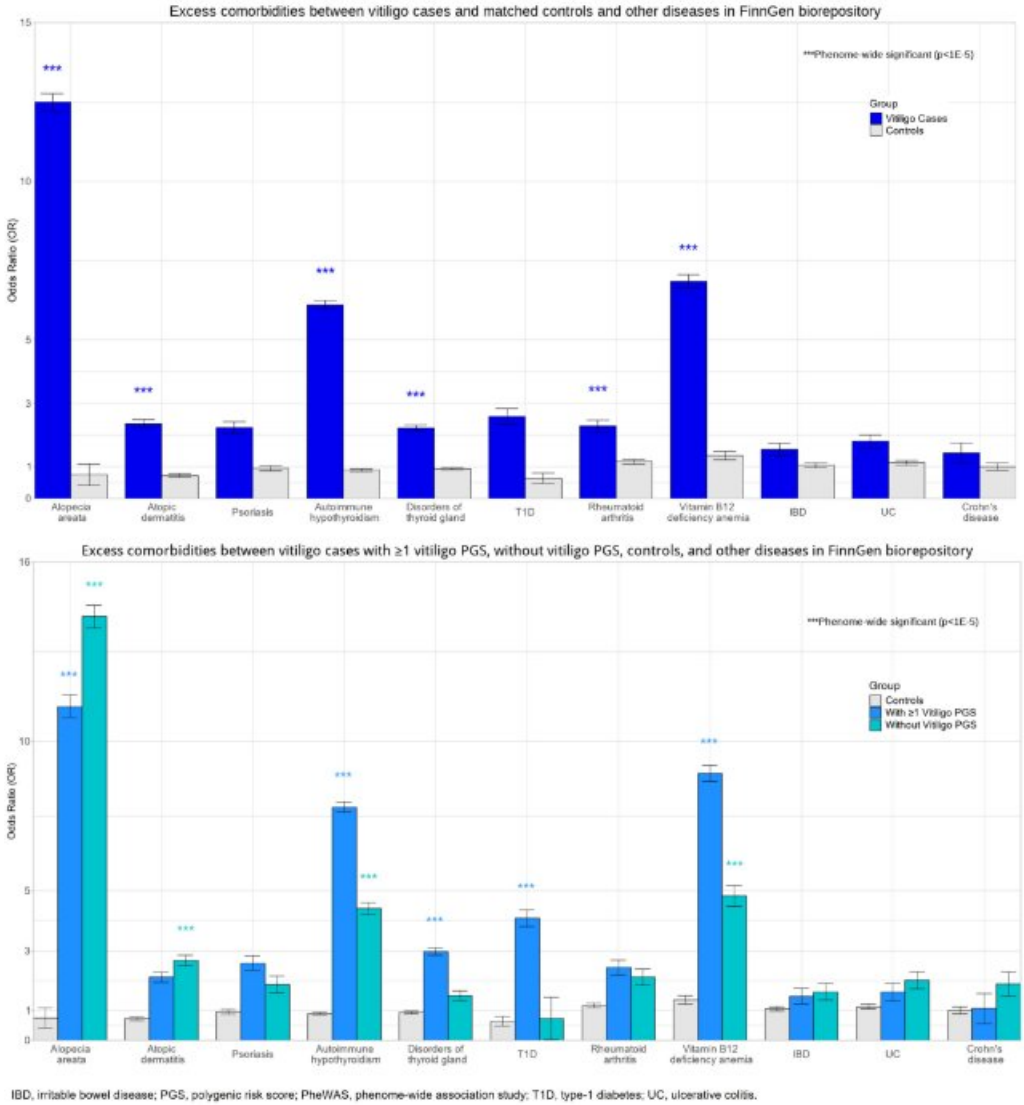
629 patients with vitiligo and 388,760 controls were included. The GWAS confirmed previously reported associations in the HLA region on chromosome 6, with genome-wide significance observed for loci near **HLA-DQA1**, **HLA-A**, and **AFM** (Nominal significance: **IL21R, PTPN22**). In the PheWAS analysis, 336 patients with vitiligo (62.8%) were in the top 20% of ≥1 predefined vitiligo PGS distribution. Patients with vitiligo had a phenome-wide significant increased risk of **alopecia areata**, **atopic dermatitis**, **autoimmune hypothyroidism**, **thyroid gland disorders**, **rheumatoid arthritis (RA),** and **vitamin B12 deficiency anemia** vs controls**.** Across PGS distributions, patients with vitiligo had phenome-wide significant associations with increased risk of **autoimmune hypothyroidism**, **thyroid gland disorders**, **type 1 diabetes (T1D),** and **vitamin B12 deficiency anemia**. Risk of **T1D** and **thyroid gland disorders** were significant only in those in the top 20% of ≥1 vitiligo polygenic risk score. In the PGS-based analysis, patients with vitiligo demonstrated significantly higher risk of developing **psoriasis**,

T1D, **RA**, and **hypothyroidism**, and significantly lower risk of developing **multiple sclerosis** compared to controls. These associations were even stronger among those in the top 20% of PGS distributions.

Conclusion:

This study is the first to highlight the strong genetic and polygenic contributions to vitiligo and its autoimmune comorbidities. Using genomic and clinical data from the FinnGen biobank, we replicated known genetic associations in the HLA region and identified significant phenome-wide links between vitiligo and multiple autoimmune conditions. Individuals with higher vitiligo PGS exhibited an elevated risk for several comorbid autoimmune diseases, supporting the utility of polygenic risk profiling in risk stratification and personalized care. Dual B12/vitiligo screening may be of value. These findings deepen our understanding of the shared genetic architecture of autoimmune diseases and underscore the potential of integrated genomic data to inform early diagnosis and targeted interventions in vitiligo.

Figure:
PheWAS analysis of risk of developing autoimmune comorbidities in the FinnGen patient population using predefined endpoints (risteys.finngen.fi), showing all patients with vitiligo vs matched controls (top), and patients with vitiligo in the top 20% of distributions in ≥1 predefined vitiligo PGS (derived from pgscatalog.org PGS000738, PGS000760, and PGS001536; meaning those in the top 20% of risk in developing vitiligo according to predefined criteria) vs patients in the lower 80% of distributions in ≥1 vitiligo PGS vs matched controls (bottom).



IBD, irritable bowel disease; PGS, polygenic risk score; PheWAS, phenome-wide association study; T1D, type-1 diabetes; UC, ulcerative colitis.

Abstract N°: 6305

Malar melasma in a adolescent male: a rare clinical entity

daghari douha[1], Nesrine Ben Salah[1], Mouna Korbi[1], Mama Mahmoud[1], Monia Youssef[1], Belhadj ali Hichem[1], Yosra Soua[1], Jamel eddine Zili[1]

[1]University Hospital Monastir, Dermatology Department, monastir

Malar melasma in a adolescent male: a rare clinical entity

Introduction & Objectives:

Melasma is an acquired hyperpigmentation disorder, predominantly affecting women aged 30–50 years. Its occurrence in adolescent males is rare and underreported. We report a rare case of malar melasma in an adolescent male.

Materials & Methods:

NA

Results:

A 17-year-old male, phototype III, presented with symmetrical, non-pruritic, brownish macules on the malar regions, persisting for six months. He reported significant sun exposure due to outdoor activities. There was no family history of melasma, hormonal therapy, or use of photosensitizing medications. Wood's lamp examination indicated epidermal-type melasma. Dermoscopy revealed brownish pseudoreticular pattern with perifollicular sparing. Routine laboratory tests, including hormonal profiles, were within normal limits. The patient was treated with azelaic acid with clinical improvement.

Conclusion:

Melasma in adolescent males is an uncommon presentation, with limited literature addressing its pathogenesis and management in this demographic. Recent studies suggest that, although melasma predominantly affects women, certain factors contribute to its development in males, particularly adolescents. The role of hormones in male melasma remains a subject of investigation. Some studies have reported hormonal imbalances in affected males. For instance, a study observed that men with idiopathic melasma exhibited significantly higher luteinizing hormone (LH) levels and markedly lower testosterone levels compared to age-matched controls, suggesting subtle testicular resistance. However, other studies have found no significant differences in hormone levels between male melasma patients and healthy controls, indicating that hormonal factors may not play a central role in all cases. Furthermore, environmental exposures are significant contributors to melasma development. Ultraviolet (UV) radiation is a well-established trigger, as it stimulates melanocyte activity, leading to increased melanin production. Effective management of melasma requires a multifaceted approach. Sun protection remains paramount; the consistent use of broad-spectrum sunscreens can prevent exacerbation. Topical agents, such as hydroquinone, tretinoin, and azelaic acid, have demonstrated efficacy in reducing hyperpigmentation. In-office procedures, including chemical peels and laser therapies, may be considered in refractory cases, though they carry risks and should be approached cautiously. It's essential to tailor treatment plans to individual patient profiles, considering factors like skin type, severity of melasma, and potential side effects.

In conclusion, while melasma in adolescent males is rare, understanding its multifactorial etiology is crucial for effective management. Further research is needed to elucidate the mechanisms and to develop targeted therapies

for this population.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6378

Facial Hyperpigmentation Induced by Adalimumab: A Rare and Underrecognized Adverse Effect

Seddiki Meriem[1], Taibi Lynda[1], Samira Zobiri[1]

[1]Mustapha university hospital, Dermatology, Algiers, Algeria

Introduction & Objectives:

Adalimumab, a fully human monoclonal antibody targeting tumor

necrosis factor-alpha (TNF-α), is a cornerstone therapy in moderate to

severe psoriasis. Has a well-known safety profile, mainly involving paradoxical psoriasis, eczema-like eruptions, and infections. Pigmentary changes are rare, poorly described, and likely underrecognized. We report a case of diffuse facial hyperpigmentation following adalimumab initiation.

Materials & Methods:

A 46-year-old phototype IV man with chronic plaque psoriasis, refractory to standard therapies, began adalimumab 40 mg every other week. One month later, he developed asymptomatic, diffuse dark brown-gray facial pigmentation. No new drugs, sun exposure, or photosensitizers were reported. Examination showed a homogeneous, non-infiltrated pigmented plaque over the entire face, without mucosal or systemic involvement. Laboratory workup to exclude other causes of melanosis including complete blood count, thyroid panel, serum ferritin, morning cortisol, antinuclear antibodies, and rheumatoid factor was unremarkable. Skin biopsy revealed orthokeratotic hyperkeratosis, basal vacuolization, pigment incontinence, and lichenoid interface changes. Adalimumab-induced hyperpigmentation was diagnosed. The biologic was discontinued, topical depigmenting agents with strict photoprotection were initiated.However, the patient self-resumed adalimumab and returned five months later with persistent pigmentation. Adalimumab was definitively stopped, but the pigmentation remained unchanged after three months.

Results:

This case illustrates a rare adverse effect of adalimumab, potentially mediated by immune-induced melanocyte alteration or post-inflammatory pigmentation following subclinical lichenoid interface dermatitis. Although TNF-α inhibition is not classically associated with pigmentary changes, it may indirectly alter melanogenesis by affecting the cytokine milieu or through keratinocyte injury. A recent case reported by Wang et al. in the Journal of Investigative Medicine High Impact Case Reports (2024) described facial hyperpigmentation in a patient on adalimumab for Crohn's disease, with clinical and histological findings compatible with those observed in our patient .Asymptomatic hyperpigmentation may be underrecognized, particularly in darker phototypes. Persistent lesions, as in our patient, can cause psychosocial and aesthetic concerns, underscoring the importance of early recognition and appropriate management.

Conclusion:

Facial hyperpigmentation is a rare but potentially persistent and underrecognized adverse effect of adalimumab. Clinicians should consider it in the differential diagnosis of facial melanosis, as timely drug discontinuation may prevent irreversible cosmetic sequelae. Further studies are needed to clarify its mechanisms and incidence among anti-TNF-treated patients.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6463

A Randomized, Split-Lesion Controlled Study to Evaluate the Efficacy and Safety of 308 nm Excimer Lamp Combined with Compound clobetasol propionate Cream in the Treatment of Stable Vitiligo

Qian Yu[1], yi pan[1], beilei cai[1], Xing-Hua Gao[2]

[1]Sinomune Pharmaceutical Company, medical department, Wuxi
[2]China Medical University, Shenyang, China

Introduction & Objectives:

Vitiligo is a chronic autoimmune depigmenting skin disorder that affects patients' appearance and imposes considerable psychosocial burdens. Because of visible skin changes and social pressures, anxiety and depression are common. Vitiligo significantly reduces quality of life, especially among young patients, impacting daily activities, employment, and interpersonal relationships. Disease severity further amplifies these effects, particularly in exposed areas or among individuals with darker skin tones. Interestingly, prolonged disease duration may promote patient adaptation and gradual improvement in quality of life. Vitiligo treatment remains challenging and often unsatisfactory. Many therapeutic agents have been tested, but no universally effective treatment has been established. Currently used modalities include topical corticosteroids, calcineurin inhibitors, oral psoralens plus ultraviolet A (PUVA), narrow-band ultraviolet B (NB-UVB), and 308 nm excimer laser or lamp therapy. Topical corticosteroids are the most frequently used and effective treatment, but long-term use can lead to epidermal atrophy. Notably, all-trans retinoic acid can prevent corticosteroid-induced skin atrophy without compromising vasoconstrictive efficacy. This study aimed to evaluate the efficacy and safety of 308 nm excimer lamp combined with compound clobetasol propionate cream in treating stable vitiligo. Because progressive vitiligo often requires systemic therapy, we focused on stable vitiligo to assess clinical improvement and evaluate the safety and effectiveness of combined therapy.

To assess the efficacy and safety of combining 308 nm excimer lamp and compound clobetasol propionate cream in treating stable vitiligo and to evaluate clinical improvement before and after treatment.

Materials & Methods:

Thirty patients (aged 18–55) with stable hand vitiligo were enrolled between 2020 and 2023. Sixty lesions were randomized into two groups: the experimental group received compound clobetasol propionate cream; the control group received single-agent clobetasol propionate cream. All patients underwent twice-weekly 308 nm excimer lamp therapy. Treatment lasted six months, with lesion changes monitored. Improvement was assessed using a quartile scale, and efficacy and safety were statistically analyzed.

Results:

Thirty patients (20 men, 10 women; mean age 36.5±8.7 years; mean disease duration 5.83±5.95 years) were evaluated. After six months, the experimental group showed a 38.67% response rate, while the control group showed a 26.83% response ($P<0.001$). At month 3, in the experimental group, six patients (20%) achieved moderate repigmentation, and three patients (10%) achieved good repigmentation; in the control group, two patients (6.67%) showed moderate repigmentation. By month 6, eight lesions (26.67%) in the experimental group showed marked repigmentation, compared to three lesions (10%) in the control group. Both groups showed significant improvement from baseline ($P<0.05$).

Conclusion:

Combined 308 nm excimer lamp and compound clobetasol propionate cream treatment is an effective and safe approach for stable vitiligo, providing superior outcomes compared to single-agent clobetasol propionate with 308 nm lamp.

EADV Congress 2025, PARIS
17 SEPTEMBER - 20 SEPTEMBER 2025
POWERED BY M-ANAGE.COM

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6480

Exogenous Ochronosis in Eight Filipino Women: A Case Series

Ana Maria Gallaza-Adel[1], Krystel Angela Olano[1], Johannes Dayrit[1]

[1]Research Institute for Tropical Medicine, Dermatology, Muntinlupa, Philippines

Introduction & Objectives:

Exogenous ochronosis is a facial pigmentary disorder that presents as asymptomatic dark blue-black patches and skin texture changes, typically on the face and neck. It is more common in individuals with darker skin phototypes. Historically, the condition is primarily associated with prolonged use of high-concentration hydroquinone and other compounds, such as phenol, resorcinol, and quinine, with unprotected sun exposure as an exacerbating factor. Recently, the diagnosis has been validated by dermoscopy and skin biopsy.

This case series describes eight females with Fitzpatrick skin type IV who developed bluish-gray to black facial hyperpigmentation following prolonged, unsupervised topical hydroquinone use.

Materials & Methods:

We report eight cases of ochronosis who consulted between November 2021 and April 2025. All patients were females aged 43 to 65 years, with a mean age of 55.4 years. None exhibited features of endogenous ochronosis, such as dark urine, arthralgia, scleral hyperpigmentation, or thickened cartilage. All cases presented with progressive facial hyperpigmentation persisting for two to ten years. Notably, all had a history of prolonged use—ranging from ten to twenty-five years—of hydroquinone 2% in both solution and cream formulations, combined with tretinoin 0.05%. Photoprotection practices varied: two patients consistently used sun protection, four reported occasional use, and two had none. The findings suggest that chronic use of hydroquinone-containing regimens, even at 2% concentration, combined with inconsistent photoprotection and adjunctive topical agents, may contribute to the development of exogenous ochronosis.

Results:

In this case series, eight Filipino female patients with Fitzpatrick skin type IV presented with bluish-gray to black facial hyperpigmentation, most pronounced over the malar and zygomatic areas. Closer inspection revealed caviar-like papules (in two cases) and confetti-like depigmentation (in all cases).

Dermoscopy showed reddish-brown reticular structures obliterating follicular openings, black dots, and interspersed elongated serpentine vessels. Histopathology in six biopsied cases showed ochre-colored globules, dilated vessels, degenerated collagen fibers, and prominent solar elastosis. Histopathology of confetti-like depigmentation revealed fibrosis and ochronotic pigment, suggesting scarring.

Patients were advised to discontinue hydroquinone, to use daily photoprotection, and to apply prescription products that promote collagen remodeling and skin repair. Laser therapy was utilized selectively: one patient underwent combined Q-switched Nd:YAG 1064 nm and 675 nm laser treatment, showing significant clinical improvement after four sessions. Two patients were treated with the pro-yellow 577 nm laser, resulting in mild improvement after two to three sessions.

Conclusion:

Exogenous ochronosis is an emerging public health concern in developing countries, particularly among low-

income individuals using readily available skin-lightening agents like tretinoin and hydroquinone without medical supervision. This case series highlights the need for early dermoscopic detection, prompt discontinuation of offending agents, and early dermatologic evaluation to guide appropriate, individualized management. While laser therapies offer potential benefit, treatment outcomes remain variable.

Abstract N°: 6523

Investigating the prevalence and predictors of subclinical lesions: results from a populations-based vitiligo cohort from Denmark

Iben Marie Miller[1], Alejandro Castillo Mondragón[1], Zarqa Ali[2], Randi Bechmann[3], Cecilie Rovsing[4], Morten Haulrig[5], Khaled Ezzedine[6], Asger Bihlet[1]

[1]Blueskin, Soeborg, Denmark
[2]Bispebjerg Hospital, København, Denmark
[3]Sanos Clinic Vejle, Vejle, Denmark
[4]Sanos Clinic Gandrup, Gandrup, Denmark
[5]Gentofte Hospital, Hellerup, Denmark
[6]Henri-Mondor University Hospital, Créteil, France

Introduction & Objectives:

Vitiligo is an autoimmune disorder with progressive loss of melanocytes, leading to depigmented macules/patches on the skin (1). Global prevalence is 0.4% (2,3) , and although not fully elucidated the pathogenesis involves genetics, environmental triggers, oxidative stress and immune dysregulation(1).

Literature on perilesional and non-lesional skin is growing(4). However, studies are scarce on 'subclinical lesions'(5) i.e. areas of the skin appearing normal to the naked eye but show signs of depigmentation in long-wave ultraviolet light, e.g. Wood's light.

Objective

We aimed to explore the prevalence and characteristics of vitiligo patients with subclinical lesions in a pilot-cohort study of Danish patients with vitiligo.

Materials & Methods:

The population-based vitiligo-cohort is part of a larger pilot cohort study (ct.gov NCT06319781). Participants were recruited via social media, and eligible if >18 years and physician-diagnosis of vitiligo. The participants will be followed for 12 months. Data collected includes demographics, blood samples, Body Surface Area (BSA), Vitiligo Area Scoring Index (VASI), The Vitiligo European Task Force (VETF) using Wood's light, and self-reported Vitiligo Disease activity (VIDA) score. Subclinical lesions were defined as identifiable by woods light only, situated in direct connection to the largest clinically visible patch/macule in normal light i.e. scoring '+1' in 'VETF spreading'.

Current data is a cross-sectional analysis of baseline data.

Results:

A total of 59 vitiligo participants were included between 22DEC2023 to 03JUL2024 at three sites in Denmark.

The mean age was 53.64 years, and 75.4% were female. The mean VASI (0 to 100) was 14.47, and the self-reported mean VIDA (Ranging from "-1" Stable for at least 1 year to "4" Active in the past 6 weeks) was 2.5. (Table 1)

A total of 21 (21/59=35.6%) participants had subclinical lesions (Table 2).

There was a statistically significant positive association between leukocyte-level and the presence of subclinical

lesions with an OR of 1.41 (95%CI: 1.01-1.98, *p=0.02*). Furthermore, there was a statistically significant negative association between self-reported VIDA and presence of subclinical lesions with an Odds Ratio (OR) of 0.61 (95%CI: 0.42-0.91, *p=0.01*).

There were no statistically significant associations between presence of subclinical lesions and VASI, BSA, VETF extend or staging, Neutrophil-to-lymphocyte Ratio (NLR) nor participants age (Table 3).

Conclusion:

Thirty-five percent (35.6%) of the vitiligo cohort had subclinical vitiligo lesions.

The presence of subclinical lesions was associated with leukocyte-level by which every increase of one unit in leukocyte value, the odds of having subclinical lesions increased by 41%.

The presence of subclinical lesions was negatively associated with self-reported VIDA by which each unit-increase of self-reported VIDA, the odds of having a subclinical lesion decreased by 39%. Thus, self-perceived increase in vitiligo activity yields decreased odds of subclinical lesions, and vice versa self-perceived decrease in activity yields higher odds of subclinical lesions.

If confirmed in other studies, it could be beneficial to assess subclinical lesions with Wood's light if VIDA score is observed to decrease in the presence of leukocyte increase.

Limitation: No direct data on vitiligo subtypes. However, as ~90% of vitiligo is non-segmental, this may be cautiously extrapolated.

References

Bergqvist C, Ezzedine K. Vitiligo: A Review. Vol. 236, Dermatology. S. Karger AG; 2020. p. 571–92.

Akl J, Lee S, Ju HJ, Parisi R, Kim JY, Jeon JJ, et al. Estimating the burden of vitiligo: a systematic review and modelling study. Lancet Public Health. 2024 Jun 1;9(6):e386–96.

Haulrig MB, Al-Sofi R, Baskaran S, Bergmann MS, Løvendorf M, Dyring-Andersen B, et al. The global epidemiology of vitiligo: A systematic review and meta-analysis of the incidence and prevalence. JEADV Clinical Practice. John Wiley and Sons Inc; 2024.

Tulic MK, Kovacs D, Bastonini E, Briganti S, Passeron T, Picardo M. Focusing on the Dark Side of the Moon: Involvement of the Nonlesional Skin in Vitiligo. Journal of Investigative Dermatology. Elsevier B.V.; 2024.

Anbar TS, Atwa MA, Abdel-Aziz RT, Hegazy RA, Ibrahim SI, El Genedy RM, et al. Subjective versus objective recognition of facial vitiligo lesions: Detection of subclinical lesions by Wood's light. Journal of the Egyptian Women's Dermatologic Society. 2022 Jan 1;19(1):7–13.

Table 1: Demographics and characteristics of vitiligo cohort.

	VITILIGO N=59	SD, %
Age	53.64	13.977
Sex		
Male	15	24.60%
Female	46	75.40%
Mean BMI	26.79	4.949
Fitzpatrick Skin type		
1	1	1.70%
2	8	13.60%
3	34	57.60%
4	15	25.40%
5	1	1.70%
6	0	0
Age of diagnosis	30.09	16.402
Duration of disease	22.98	15.474
WHO QOL - BREF		
Self perceived quality of life 1-5	4.05	0.797
Self perceived health 1-5	3.61	0.983
Physical health 0-100	46.41	11.444
Phycological 0-100	56.85	13.096
Social relationships 0-100	73.81	14.900
Environment 0-100	76.75	10.751
Disease severity n=59		
VASI 0-100	14.47	19.392
VETF Extent (0-100)	19.73	23.929
VETF Staging (0-20)	8.50	4.780
VETF Spreading (-5,0,+5)	0.61	1.661
BSA	18.94	23.004
VIDA self reported (-1 to 4)	2.50	1.537
Hematology		
Erythrocytes	4.73	0.461
Hemoglobin	8.87	0.809
Hematocrit	0.43	0.039
Platelets	247.17	61.591
Leukocytes	6.61	2.068
Neutrophils	4.01	1.593
Lymphocytes	1.87	0.530
Monocytes	0.04	0.022
Eosinophils	0.52	0.155
Basophils	0.18	0.126
NLR	2.21	0.755
Vital Signs		
Systolic	132.98	14.547
Diastolic	81.93	9.468
HR	69.19	8.380
RR	14.95	2.121
Temp	36.38	0.621

Table 2. Demographics and characteristics of vitiligo cohort according to subgroups no subclinical lesions and subclinical lesions.

The VETF tool combines analysis of extent, stage of disease and disease progression. Extent is evaluated using the rule of nines. Staging is based on cutaneous and hair pigmentation in vitiligo patches and disease is staged 0-3 on the largest macule in each body region (except for hands and feet which are assessed separately and globally as one unique area). 0 is for normal pigmentation, 1 incomplete depigmentation, stage 2 complete depigmentation, stage 3 complete depigmentation plus hair whitening (>30%). Spreading is scored as +1 progressive, 0 stable, -1 regressive. The spreading is assessed using on Wood's lamp examination of the same largest macule in each body area.

	No subclinical lesions N=38		Subclinical lesions N=21	
	Mean	SD	Mean	SD
Age	52.789	14.0639	55.476	14.3896
Sex				
Female	**27**	**71.05%**	**17**	**80.95%**
Male	**11**	**28.95%**	**4**	**19.05%**
BMI	26.942	5.3202	26.514	4.3074
Fitzpatrick Skin type				
1	1	**2.63%**	0	**0.00%**
2	6	**15.79%**	2	**9.52%**
3	19	**50.00%**	15	**71.43%**
4	11	**28.95%**	4	**19.05%**
5	1	**2.63%**	0	**0.00%**
6	0	**0.00%**	0	**0.00%**
Duration of disease	24.263	15.4092	20.952	15.4126
Age of diagnosis	28.211	16.4845	34	15.7226
WHOQLIV - Self perceived quality of life 1-5	4.053	0.8683	4.048	0.669
WHOQLIV - Self perceived health 1-5	3.605	1.0537	3.619	0.8646
WHOQLIV - Physical health 0-100	47.947	12.3965	43.619	9.1021
WHOQLIV - Phycological 0-100	57.026	14.425	56.524	10.5954
WHOQLIV - Social relationships 0-100	76.316	14.0503	69.286	15.6593
WHOQLIV - Environment 0-100	76.632	11.7782	76.952	8.8571
VASI	17.081	22.9318	9.742	9.0167
VETF Extent (0-100)	21.974	28.0178	15.667	13.466
VETF Staging (0-20)	7.811	4.0266	9.714	5.7892
VETF Spreading (-5,0,+5)	-0.289	0.7679	2.238	1.6095
BSA	21.914	26.995	13.562	11.8047
VIDA	2.889	1.4497	1.8	1.4726
Hemoglobin	8.849	0.8089	8.924	0.8318
Leukocytes	6.163	1.4688	7.544	2.7729
NLR	2.247	0.7805	2.133	0.7156

Logistic regression			
Dependent Y	**Subclinical lesions**		
	Significance level	**Odds ratio**	**95% CI**
VASI	P = 0.1235	0.9727	0.9329 to 1.0141
BSA	P = 0.1527	0.9804	0.9512 to 1.0105
VETF extent	P = 0.3097	0.9873	0.9619 to 1.0135
VETF staging	P = 0.1411	1.0896	0.9698 to 1.2241
VIDA	P = 0.0099	0.6132	0.4152 to 0.9055
Leukocytes	P = 0.0231	1.4145	1.0128 to 1.9755
NLR	P = 0.6010	0.81	0.3644 to 1.8004
AGE	P = 0.4788	1.014	0.9755 to 1.0539

Table 3: Odds ratio (OR) for investigated predictors of subclinical lesions in vitiligo cohort

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 6670

Eficacia de la tirbanibulina al 1% en el tratamiento de la queratosis actínica pigmentada: un estudio ambispectivo en la vida real

Alejandro Arroyo Córdoba[1], Blanca Moyano Almagro[1], Gloria Calvo Moreno[1], Leandro Martínez Pilar[1], María Dolores Fernández Ballesteros[1]

[1]Hospital Regional Universitario de Málaga, Málaga, Spain

Introduction & Objectives:

Pigmented actinic keratoses (pAKs) represent a less frequent subtype of actinic keratosis (AK), characterized by hyperpigmentation, and can pose both diagnostic and therapeutic challenges. Tirbanibulin 1% ointment is an approved topical treatment for grade I AK, with proven efficacy and a favorable tolerability profile.

The primary objective of this study was to assess the efficacy of 1% tirbanibulin in the resolution of pAKs, as well as its impact on skin pigmentation and other pigmented lesions within the field of cancerization, in a real-life clinical setting.

Materials & Methods:

We conducted a non-randomized ambispective cohort study including 120 patients with clinically and dermoscopically confirmed AK. Among them, 35 patients (29%) presented with pAK. All patients received 1% tirbanibulin ointment once daily for five consecutive days. In cases with a partial response, a second sequential five-day treatment cycle was administered. Clinical and photographic evaluations were performed at baseline and at 8-12 weeks post-treatment. We assessed complete or partial resolution of pAKs, improvement in pigmentation, and clearance of solar lentigines within the treated area.

Results:

All patients with pAK showed a clinical response and an improvement in pigmentation. A complete response was observed in 75% of cases. Following a second treatment cycle, the complete response rate increased to over 90%. Additionally, solar lentigines within the treated area exhibited notable lightening and overall improvement in skin appearance. No treatment discontinuations due to adverse events were reported.

Our findings reinforce the efficacy of tirbanibulin not only in the resolution of AKs, but also highlight its greater effectiveness in cases of pAKs, along with an aesthetic improvement of the skin within the cancerization of field. This photorejuvenating effect may be related to mechanisms that are not yet fully understood. The presence of pigment in AKs may be a key factor influencing treatment response, suggesting new avenues for research into the pathophysiology and mechanisms of action of tirbanibulin.

Conclusion:

In conclusion, 1% tirbanibulin appears to be an effective and safe therapeutic option for pAKs, with additional benefits in pigmentation and overall skin appearance. Further studies are needed to better understand the role of pigmentation in treatment response.

Abstract N°: 6720

Letrozole-Induced Vitiligo-Like depigmentation in a Patient with Metastatic Breast Cancer

Soukaina El Mellouki[1], laila alami[1], Wydad Boudi[1], Youssef Zemmez[1], Mohamed El Amraoui[1], Rachid FRIKH[1]

[1]Mohammed V Military Hospital, Dermatology, Rabat, Morocco, Dermatology, Rabat, Morocco

Introduction & Objectives:

Cyclin-dependent kinase 4/6 (CDK4/6) inhibitors—such as palbociclib and ribociclib—have transformed the treatment of hormone receptor-positive (HR+), HER2-negative metastatic breast cancer. When paired with endocrine therapies like letrozole, they have significantly extended progression-free survival. While generally well tolerated, these treatments have been associated with rare dermatological side effects, including vitiligo-like depigmentation. This report presents the case of a 72-year-old woman who developed such lesions following letrozole monotherapy, underscoring the importance of early recognition and management of this rare adverse event.

Materials & Methods:

A 72-year-old postmenopausal woman with HR+/HER2− metastatic breast cancer was started on letrozole as first-line treatment. Her medical history included invasive ductal carcinoma previously managed with radiotherapy. Approximately one year after initiating letrozole, she developed well-demarcated, hypopigmented macules on her hands, face, and trunk. These lesions were asymptomatic but gradually expanded. A comprehensive workup—including histopathology and autoimmune screening—confirmed drug-induced vitiligo-like depigmentation. No other autoimmune diseases or medication changes were identified.

Results:

The patient was referred to dermatology, where she was managed with topical corticosteroids and calcineurin inhibitors. Despite minimal improvement, letrozole was continued due to its effectiveness in cancer control. The patient was monitored regularly to assess both oncologic outcomes and progression of the skin lesions.

Conclusion:

Vitiligo-like depigmentation is an uncommon but impactful side effect of CDK4/6 inhibitor-associated therapies and, as this case suggests, may also occur with aromatase inhibitors like letrozole. Awareness of this potential reaction is essential for early recognition and supportive dermatologic care. This case also highlights the need for further studies to better understand the mechanisms involved and to guide optimal management strategies.

Abstract N°: 7056

Reticulate pigmentary disorder- a case report

Dubravka Zivanovic*[1, 2], Martina Bosic[3], Marija Malinic[2], Jelena Vukovic[2], Igor Kapetanovic[2], Vesna Reljic[1, 2]

[1]University of Belgrade, Faculty of Medicine, Clinic of Dermatology and Venereology, University Clinical Center, Belgrade, Serbia
[2]University Clinical Center of Serbia, Clinic of Dermatology and Venereology, Belgrade, Serbia
[3]University of Belgrade, Faculty of Medicine, Institute of Pathology, Belgrade, Serbia

Introduction & Objectives:

Reticulate pigmentary disorders (RPD) is a term that is loosely defined to include a spectrum of acquired and hereditary conditions with different morphology. They are uncommon disorders characterized by freckle-like hyperpigmented macules coalescing to form reticular pattern. Many of hereditary RPD have a wide array of cutaneous presentations with overlapping features. The genes responsible for their expression have not been definitively identified. Most of the commonly seen genetic RPD have defects localized to keratin 5 and keratin 14 gene. Clinically, RPD can be classified based on the extent and distribution as localized, generalized, flexural or acral. The acquired RPD usually have a pattern of reticulate pigmentation with macules of a size larger than the "freckle" like morphology of the true genetic reticulate pigmentary disorders. Dowling Degos disease (DDD) is a rare, pigmentary disorder with variable presentations and autosomal dominant mode of inheritance but may occur sporadically. First lesions usually appear in the third or fourth decade of life. As the localization of the gene overlaps with a related condition (reticular acropigmentation of Kitamura, RAPK) it is also referred to as Dowling Degos - Kitamura disease.We present a female patient with possible DDD.

Case report:

A 40-year-old, healthy Caucasian woman, presented with facial, flexural and acral hyperpigmentation. Lesions occurred several months earlier, first on the face then on the extremities, followed by a mild pruritus. Dermatological examination showed deep brown, small, discrete rounds to oval macules, with reticulate distribution on the face and neck, especially perioral. Rare pitted scars were observed in the perioral region. In the axillar region, popliteal folds there were brown pigmentate larger macules, showing reticular distribution. On the anterior arms and dorsal hands, discrete, brighter reticulate pigmentation was observed. No lesions were observed on palms, soles, nails and mucous membranes. Extensive work up (laboratory analyses, X Chest ray, abdominal echosonography, gynecological examination, hormonal status) was normal. Genetic study was not performed. Her family history was negative.

Biopsy revealed mild epidermal atrophy, some dilated follicular infundibula, with keratotic plugs in some areas, perivascular lymphocytic infiltrate and an increased number of melanophages in the superficial dermis.

She underwent few laser treatments (pulse dye laser and intense pulsed light) with minimal improvement and did not continue due to high costs. She was advised to use sunscreens.

Comment:

Reticulate pigmentary disorders mimic each other and may have overlapping clinical features. Awareness of different clinical variations of RPD is essential as such cases may lack other classical findings of DDD thereby making clinical diagnosis challenging. In our patient, clinical picture and disease course as well histopathology could correlate with the diagnosis of DDD. Genetic testing is being considered.

Abstract N°: 7159

Topical ruxolitinib in patients with segmental and mixed vitiligo

Markus Böhm*[1], Kerstin Steinbrink[1]

[1]University of Münster, Dept. of Dermatology, Münster, Germany

Introduction & Objectives:

Vitiligo is a common and chronic skin disorder. The two major subtypes are segmental vitiligo (SV) and non-segmental vitiligo (NSV). Mixed vitiligo, formerly classified as an own subtype, has recently been grouped into NSV. Of note, NSV is regarded an autoimmune CD8+ T cell-driven disease with a complex genetic background whereas as the etiology of SV remains poorly understood. Recently, the Janus kinase 1/2 inhibitor ruxolitinib was approved in Europe as a new therapy for NSV with facial involvement. However, there is a lack of knowledge as to whether SV or rare forms of NSV respond to topical ruxolitinib. Importantly, there is no approved or specific treatment for SV. Its management remains a challenge albeit international and national guidelines exist.

Materials & Methods:

We treated 3 patients with SV (age of 5,12, and 54 years) with a disease duration of 2-3 years. The SV involved the face including the eyebrows, neck and the leg and were subclassified as mono- and polysegmental. The affected body surface area (BSA) ranged from 0,18 to 2% and the disease was classified as non-active. The patients had a skin phototype II-IV. In two of the patients with SV leukotrichia was partially present. Previous therapies consisted of topical calcineurin inhibitors. The patient with mixed vitiligo was a 14-year-old girl with an extent of disease of 6 % BSA, skin phototype IV, and a disease duration of 6 years. Involved body areas included the face with segmentally and non-segmentally distributed lesions, the lips, neck and upper trunk, axillar regions, elbows, knees as well as the dorsa of her hands and feet. Her previous treatment consisted of topic calcineurin inhibitors and systemic corticosteroid for 3 weeks to stop her active disease during. All patients (and parents) gave written consent for the off-lab treatment with ruxolitinib which was applied twice daily as recommend for treatment of NSV. Patients were monitored every 2-4 months for adherence, safety and tolerance. Efficacy was measured by measurement of involved BSA and by clinical photography.

Results:

None of the 3 patients with SV responded to topical ruxolitinib after one year of treatment. Accordingly, treatment was subsequently stopped. In contrast, the 12-year-old girl with mixed vitiligo experienced marked improvement with complete repigmentation of the segmental vitiligo lesion situated on her left chin followed by gradual repigmentation of other non-segmentally distributed areas within the face (eyelids) but also on the elbows and knees. Dorsa of the feet and hands responded poorly as expected. Her total BSA accordingly declined from 6 to 4,1% within one year. Topical ruxolitinib is currently continued by her on all affected body sites to maintain and to further increase repigmentation. Notably, adherence, tolerance and safety were good in all patients. Only the 4-year-old child noted some slight scaling during the first months of treatment with topical ruxolitinib.

Conclusion:

Our small case series suggest that topical treatment with topical ruxolitinib is not effective in patients with SV. However, we do not know whether early intervention of this entity with ruxolitinib crème is beneficial. Importantly, mixed vitiligo appears to respond well to topical ruxolitinib including the segmentally distributed regions. Of note, tolerance and safety of ruxolitinib appears to be good even in very young children.

EADV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 7186

Combined treatment of patients with vitiligo using laser therapy and NB-UVB phototherapy.

Alicja Frączek[1], Agnieszka Owczarczyk-Saczonek[1]

[1]University of Warmia and Mazury in Olsztyn, Dermatology, Sexually Transmitted Diseases and Clinical Immunology, Olsztyn, Poland

Introduction & Objectives: Standard therapeutic interventions for vitiligo involve oral and topical steroids, immunomodulators and phototherapy. However, surgical options or laser therapy can be considered as alternative methods. Additionally, topical Janus kinase (JAK) inhibitors, such as ruxolitinib, have demonstrated clinical effectiveness, nevertheless, its availability is limited due to the high cost of therapy. Despite the diversity of available treatment schemes, repigmentation process is often long, and the clinical results frequently remain not fully satisfactory for the patients. Consequently, integrated therapeutic approaches, aiming to achieve potential synergistic mechanisms, are meant to improve clinical results and reduce the duration of therapy. Laser therapy displays potential advantages and safety, both as a monotherapy and as a supplementary method. While CO2 lasers and NB-UVB are individually established, their precise combination and optimization are still subjects of study. Here we aim to add to the knowledge of beneficial effect of CO2 laser with the NB-UVB phototherapy in the repigmentation process among patients with vitiligo.

Materials & Methods: Here, we present two cases of patients with vitiligo treated with CO2 laser in combination with NB-UVB phototherapy.** Laser therapy sessions were performed in both cases once per month, while phototherapy was applied 3 times per week, with a 24-hour break after laser procedure.** The areas subjected to laser therapy included hypopigmented patches on the dorsal part of the hands, the wrists, the elbows and forearms. Repigmentation progress was assessed after 3 and 6 months of the treatment with the use of CO2 laser.

Results: We present a case of 51-year-old patient with stable, non-segmental vitiligo who was treated with the use of CO2 laser in combination with NB-UVB phototherapy. According to the interview first skin depigmented lesions appeared in 2007. At that time, therapeutic methods such as suction blister grafting, UVB phototherapy and topical calcineurin inhibitors were applied with moderate improve. One year after starting phototherapy, the patient discontinued the treatment for personal reasons. When CO2 laser and NB-UVB therapy was restarted the patient had been without any treatment for over 4 years. In a second case, a 40-year-old patient underwent CO2 laser therapy, one year after initiating NB-UVB phototherapy, due to insufficient repigmentation process. The patient was diagnosed with vitiligo in 2018. Until phototherapy was started in 2023, only topical treatment was applied. As a result of the proposed therapy good to excellent response in repigmentation was observed in the elbow and forearm areas in both patients. In first case, a degree of repigmentation of > 70% was achieved, while in second case >50%. The dorsal area of the hands and wrists in both cases displayed only mild improvement. During therapy and after 6 months follow up no side effects were reported.

Conclusion: The findings suggest that the combination of CO2 laser therapy and NB-UVB phototherapy may offer a synergistic approach to enhance and accelerate repigmentation in stable, non-segmental vitiligo, particularly in the elbow and forearm regions. The addition of CO2 laser therapy to an existing NB-UVB phototherapy regimen also appears to improve repigmentation outcomes. Further research and standardization of the procedure are needed.

Abstract N°: 7229

Piebaldism in perspective: shifting research from body to mind

Jayalakshmi Alagar*[1], Bisam-Ul Haq[2], Yasmin Nikookam[3], Sami Raza[4]

[1]Temple University, Philadelphia, USA, Philadelphia, USA, United States
[2]Oxford University Hospitals, Oxford, United Kingdom
[3]St. George's University, London, United Kingdom
[4]City and Sandwell Hospitals, Birmingham, United Kingdom

Introduction & Objectives:

Piebaldism is one of the earliest recognized autosomal dominant disorders, characterized by depigmented skin typically on the upper extremities and scalp, often accompanied by hyperpigmented macules (leukoderma) and a white forelock (poliosis). It is essential to differentiate piebaldism from other genodermatoses like albinism, vitiligo, and Waardenburg syndrome, which also affect melanocytes, are hereditary, and rare. While benign, piebaldism is understudied and its visible lesions—due to their location, stability from birth, and resistance to treatment—can cause significant psychosocial burden. This abstract aims to highlight the need for more inclusive and empathetic research into the social impact of piebaldism.

Materials & Methods:

A historical and sociocultural analysis was conducted to contextualize the representation and lived experience of individuals with piebaldism, particularly those from Black and Brown communities. Literature review and historical documentation were examined, including case studies and past visual depictions, to identify biases in diagnosis and reporting.

Results:

Recent increases in reported piebaldism cases predominantly feature Black and Brown individuals, despite no known racial or ethnic predilection. The stark visual contrast of lesions against darker skin may account for this trend, but such disproportionate representation can reinforce false beliefs and harmful stereotypes. Historical cases like Mary-Sabina and George Alexander Gratton illustrate the dehumanization and racialized spectacle historically imposed on individuals with piebaldism. These cases expose how clinical fascination can perpetuate social injustice.

Conclusion:

While medically benign, piebaldism has profound psychosocial consequences rooted in visibility, stigma, and historical racial bias. Preferential case reporting in darker-skinned individuals risks perpetuating outdated racial hierarchies and ignoring the lived experience of patients. A shift toward qualitative, human-centered dermatological research is necessary to honor the dignity of those affected and to challenge longstanding biases in clinical paradigms.

Abstract N°: 7232

Rare Co-occurrence of Vitiligo and Ankylosing Spondylitis: A Case Report and Review of the Literature

Boumediene Dahmani[1], Sarra Hanane CHERIFI[1], abouhammad ahmad[1]

[1]aboubakr belkaid university , medecine faculty , Tlemcen University Hospital Center, TLEMCEN , Algeria

Introduction & Objectives:

Vitiligo is a relatively common autoimmune dermatosis affecting 0.5-1% of the population. Ankylosing spondylitis is another autoimmune disease characterized by chronic axial and entheseal inflammatory rheumatism. The objective of this case report is to highlight the rare co-occurrence of these two autoimmune conditions in a single patient and discuss potential associations based on existing literature.

Materials & Methods:

We present a case of a 54-year-old female patient with a medical history of hypertension, chronic low back pain for ten years, and ankylosing spondylitis diagnosed one year prior. The patient presented with depigmented lesions on the dorsa of both feet, clinically suggestive of vitiligo. These were bilateral, roughly symmetrical ivory-white plaques with well-defined borders (approximately 6x4 cm) and associated with pruritus. A Wood's lamp examination was performed to confirm the diagnosis of vitiligo. A review of existing literature on the association between vitiligo and ankylosing spondylitis was conducted.

Results:

Clinical examination confirmed the presence of bilateral, symmetrical, ivory-white depigmented plaques with well-defined borders on the dorsa of the patient's feet, consistent with vitiligo, which was further supported by Wood's lamp examination. The patient also had a pre-existing diagnosis of ankylosing spondylitis. A review of the literature revealed a limited number of reported cases of this association, with only one study suggesting a potentially non-coincidental link

Conclusion:

This case report highlights the rare co-occurrence of vitiligo and ankylosing spondylitis. While vitiligo is frequently associated with other autoimmune diseases, its association with ankylosing spondylitis is sparsely documented. The limited existing literature, with a single study suggesting a potential link beyond chance, warrants further investigation into the possible shared underlying immunological mechanisms and consideration of ankylosing spondylitis as a potential comorbidity in vitiligo patients.

Abstract N°: 7391

Acquired Brachial Cutaneous Dyschromatosis in Filipino Women:A Case Series

Majarael Del Villar[1], Johannes Dayrit[1]

[1]Research Institute for Tropical Medicine, Dermatology, Muntinlupa, Philippines

Introduction & Objectives: Acquired Brachial Cutaneous Dyschromatosis (ABCD) was first described four years ago and typically presents as asymptomatic hyperpigmented and hypopigmented macules on the dorsal forearms of middle-aged, postmenopausal women. The exact etiology remains unclear, though cumulative ultraviolet exposure, use of topical hypopigmenting agents, pregnancy, and systemic factors such as hypertension treated with ACEi and thyroid autoimmunity have been implicated. Despite its increasing recognition in East Asia, reports among Filipinos remain limited. This case series aims to describe the clinical features, histopathologic findings, and potential predisposing factors in four Filipino women diagnosed with ABCD.

Materials & Methods: Four Filipino women aged 52 to 63 years presented with clinical and histopathologic findings consistent with ABCD, all showing basal layer hyperpigmentation, solar elastosis, superficial telangiectasias and pigment-laden macrophages. Despite these shared features, each case had distinct contributing factors. The first patient had a 20-year history of brachial and facial hyperpigmentation, likely exacerbated by prolonged sun exposure and chronic use of hypopigmenting agents. Melan-A immunostain showed increased number of irregularly-shaped melanocytes in the basal cell layer. The second patient developed pigmentation changes during her first pregnancy and was later diagnosed with a connective tissue disease, evidenced by a positive ANA and histologic findings of interface dermatitis and pigment incontinence. The third patient, had a history of dendrocnide dermatitis, with biopsy revealing features of both contact dermatitis and ABCD. The fourth patient, without a history of topical hypopigmenting agents and had minimal sun exposure showed findings of ABCD alongside idiopathic guttate hypomelanosis.

Results: All patients were counseled on strict photoprotection, and management was tailored to contributing factors. The first patient, with long-term use of hypopigmenting agents and significant sun exposure, was advised to discontinue these agents and started on Wnt inhibitor gel which modulates pigmentation pathways. The second patient, diagnosed with a connective tissue disease, was managed in coordination with rheumatology alongside photoprotection. The third patient, with a history of dendrocnide dermatitis, received topical corticosteroids, and photoprotection was reinforced. The fourth patient, with concurrent idiopathic guttate hypomelanosis was managed conservatively. Laser therapy is planned once the concomitant skin conditions is adequately addressed. Follow-up showed stabilization or mild improvement in pigmentation in all cases.

Conclusion: The presence of overlapping pigmentary disorders further complicates diagnosis, emphasizing the need for careful clinical correlation and histopathologic evaluation. Increased awareness of ABCD is vital for early recognition and appropriate care, particularly in skin of color populations, where pigmentary disorders may be underdiagnosed. Management of ABCD is primarily focused on preventing further sun damage and controlling pigmentation changes. Additionally, treating underlying autoimmune conditions or inflammatory skin diseases and providing psychosocial support are important aspects of comprehensive management.

EADV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 7470

Amyloidosis Cutis Dyschromica: A Rare Case of Progressive Dyschromia with GPNMB gene mutation

Majarael Del Villar[1], Johannes Dayrit[1], Leilanie Senador[1], Daniel Marlo Senador[1], Chao Kai Hsu[2]

[1]Research Institute for Tropical Medicine, Dermatology, Muntinlupa, Philippines
[2]National Cheng Kung University Hospital, Dermatology, Tainan, Taiwan

Introduction: Amyloidosis Cutis Dyschromica (ACD) is a rare and progressive form of primary cutaneous amyloidosis characterized by hypo- and hyperpigmented macules and patches on the skin in the absence of systemic involvement. Typically benign, ACD involves amyloid deposition in the dermis. It often follows an autosomal recessive inheritance pattern, although sporadic cases are also noted. Mutations in the glycoprotein nonmetastatic gene B (GPNMB) gene, which is implicated in melanosome formation, have been associated with the condition. Additionally, hypersensitivity to ultraviolet B radiation and DNA repair defects, contribute to dyschromia.

Materials and Methods: A 34-year-old female presented with a 10-year history of few, asymptomatic, mottled hypopigmented and hyperpigmented macules on her upper extremities. Over time, these lesions increased in size and number, progressing into diffuse, hyperpigmented, patches and mottled hypopigmented macules on both upper and lower extremities. No systemic symptoms were present. Due to the varied differential diagnoses, further investigation was warranted. A skin biopsy revealed epidermal papillomatosis and widened dermal papillae containing eosinophilic amorphous deposits, confirming amyloid presence. Increased amounts of amyloid deposits are highlighted by Congo red stain with apple-green fluorescence on polarized microscope, and cytokeratin 5/6 immunostaining which supported the diagnosis of primary cutaneous amyloidosis. Furthermore, peripheral blood specimen of both the patient and the mother were sent for genetic testing. Whole-exome sequencing of the patient's peripheral blood DNA identified a reported nonsense variant (Arg189Ter) and unreported missense variant (Cys425Ser) in *GPNMB,* which were not evident in the mother.

Results: This case confirms the diagnosis of ACD through histopathology and genetic analysis. Although ACD is benign and localized, genetic testing is essential for understanding its hereditary component and guiding counseling. Management primarily addresses cosmetic concerns, as no specific treatment exists to reverse pigmentation changes. For this patient, sun protection and oral antioxidants like Vitamins C and E were recommended, along with regular monitoring.

Conclusion: This case of ACD highlights the importance of integrating clinical evaluation, histopathology, and genetic testing to establish a definitive diagnosis. The identification of *GPNMB* gene variant supports the genetic basis of ACD and underscores its hereditary potential. While the condition is benign and confined to the skin, early recognition allows for proper counseling, long-term follow-up, and cosmetic management. Aside from photoprotection and antioxidants, several treatment modalities have been attempted with varying success. These include topical corticosteroids, keratolytic agents, dimethyl sulfoxide, capsaicin, and carbon dioxide laser therapy. Among systemic options, acitretin has shown promising results in some reports. Equally important is providing psychosocial support and reassurance to help patients cope with the chronic nature of the condition.

Abstract N°: 7474

Efficacy of Combined Fractional CO_2 Laser and Rose Stem Cell-Derived Exosomes (RSCEs) Versus Fractional CO_2 Laser Alone in the Treatment of Idiopathic Guttate Hypomelanosis (IGH): A Randomized Split-Site Pilot Study

Suparuj Lueangarun[1], Therdpong Tempark[2], Byong S. Cho[3]

[1]College of Integrative Medicine, Dhurakij Pundit University, Bangkok, Thailand
[2]Faculty of Medicine, King Chulalongkorn Memorial Hospital, Chulalongkorn University, Bangkok, Thailand
[3]ExoCoBio Exosome Institute (EEI), ExoCoBio Inc., Seoul, Korea, Rep. of South

Introduction & Objectives:

Fractional CO_2 laser ($FxCO_2$) has demonstrated efficacy in the treatment of idiopathic guttate hypomelanosis (IGH). While topical exosome-based therapies are emerging as regenerative options, evidence on the synergistic effect of their combination with $FxCO_2$ remains limited.

The objectives is to evaluate the efficacy and safety of combining $FxCO_2$ with topical rose stem cell-derived exosomes (RSCEs) compared to $FxCO_2$ monotherapy in patients with IGH.

Materials & Methods: In this split-lesion, controlled study, patients with IGH received $FxCO_2$ laser treatment on all target lesions. RSCEs were applied with 12-hour occlusion to randomly selected lesions, while contralateral control lesions received laser treatment alone. Three sessions were performed at four-week intervals, followed by a four-week post-treatment evaluation. Clinical outcomes were assessed using the Investigator Global Assessment (IGA) scale and biometric analysis via Antera 3D imaging. Blinded evaluations of digital photographs were conducted by two independent dermatologists.

Results:

The combination treatment group demonstrated significantly greater improvements in both IGA scores and pigmentation compared to the laser-only group at the 4-week follow-up. A total of 91.67% of RSCE-treated lesions showed visible improvement. Adverse effects were mild and transient, with occasional swelling and erythema resolving without intervention.

Conclusion:

The combination of fractional CO_2 laser and topical RSCEs is a safe and effective therapeutic approach for IGH, providing enhanced clinical outcomes compared to laser monotherapy.

Abstract N°: 7556

Metabolic Dysregulation and Immune Activation in Vitiligo: Unveiling the Mitochondrial and Inflammatory Imprint of Disease Pathogenesis

Silvia Caputo[1], Federica Papaccio[1], Ramona Marrapodi[1], Paolo Iacovelli[1], Simona Scano[1], Alberto Marini[1], Carlo Cota[1], Emilia Migliano[1], Mauro Picardo[2], Barbara Bellei*[1]

[1]Istituto San Gallicano, IRCCS, Roma

[2]Istituto Dermopatico dell'Immacolata, IDI, IRCCS, Roma

Introduction & Objectives:

Vitiligo is a complex disorder marked by the selective destruction of melanocytes. Its complex pathogenesis involves genetic predisposition, oxidative stress, and dysregulation of the immune system resulting in an autoimmune response. Contributing factors also include impaired melanocyte adhesion properties and defective regenerative mechanisms. Some recent in vitro studies support the possible role of altered intracellular metabolic activities in priming disease onset. In line with this, patients with vitiligo often exhibit extra-cutaneous metabolic abnormalities, including impaired glucose metabolism, dyslipidemia, elevated fasting plasma glucose, hypertension, abnormal C-peptide levels, and reduced antioxidant defenses.

Materials & Methods:

In this study, we investigated in vitro the metabolic profile of melanocytes, keratinocytes and fibroblasts isolated from normal appearing skin obtained from several different patients using sex and age matched controls.

Results:

Data evidenced that in vitiligo dermal and epidermal cells, defects in mitochondrial metabolism culminate in inadequate cellular energetic function evidenced by the low level of ATP and increased generation of ROS. Reduced mitochondrial ATP synthesis mimics the effect of hypoglicemia since it is associated with enhanced Glut-4 expression, augmented import of glucose and stimulation of autophagic recycling process to supply the energetic requirement, functioning as a metabolic adaptation. Augmented import of glucose favors intracellular accumulation of glucose-related by-products (AGEs) and more importantly, a consistent release in the microenvironment suggesting that these molecules might act as messengers in the surrounding tissue. However, the consequent cytoplasmatic hyperglycemia causes an overactive mTOR/S6 pathway, leading to a negative feedback loop in the IGFR/InsR intracellular signaling. Chronic hyperphosphorylation of IRS1 (Insulin Receptor Substrate 1, the major player for insulin signals transmission) at Ser612 corresponds to a limited potential for further IGFR/InsR activation, which explains the blunted insulin response in the vitiligo cells, a condition that fully overlaps to the definition of insulin resistance at cellular level. In vitiligo cells chronic stimulation with insulin and IGF-1 exacerbated the ATP deficit leading to a further increase of ROS and AGEs.

Among the cell types analyzed keratinocytes appeared to be particularly sensitive to glucotoxicity. Vitiligo keratinocyte's impairment of intracellular metabolic activities initiates a severe inflammatory state converging in the production of second messengers (CXCL10, IL-6, IL-8, IL-1α, IL1-β, and TNFα) important in innate immunity activation, as evidenced by THP-1 monocyte differentiation, and possibly results in further amplification of the immunity network. Consistently, THP-1 cells exposed to vitiligo keratinocyte conditioned medium produced a large amount of immunostimulatory molecules which amplify inflammation (IL-1α, IL-1β, IL-6, IL-8, CXCL10, CXCL12, CXCL16, and PD-L1).

Conclusion: Overall, presented data reinforce the link between metabolic impairment and vitiligo development. The definition of the metabolic imprint of inflammation in vitiligo has clinical implications and opens a new translational research perspective.

Abstract N°: 7564

phenytoin solution with fractional co2 laser for stable vitiligo in a pediatric patient: a case report

Shivani Gahlot*[1]

[1]India, dermatology, bihar, India

Introduction & Objectives:

Vitiligo is an acquired depigmentation disorder with significant psychological burden, especially in pediatric patients. Various treatment modalities exist, but the response is often unpredictable. Phenytoin, known to stimulate melanocyte proliferation and migration, may offer synergistic repigmentation when combined with laser therapy. This case report highlights the efficacy and safety of topical phenytoin solution combined with fractional CO_2 laser in treating stable vitiligo in a child.

Materials & Methods:

A 13-year-old female presented with stable nonsegmental vitiligo involving the upper neck, bilateral forearms, and bilateral legs below the knees. Stability was defined by the absence of new lesions or progression over the past year. She was treated with 2 mL of phenytoin solution applied immediately post fractional CO_2 laser sessions, administered biweekly for four sessions. The patient was concurrently on weekly oral Vitamin D supplementation. Repigmentation was assessed using the Vitiligo Area Scoring Index (VASI) at baseline and one month after the final session. No other topical or systemic therapy was used during the course.

Results:

Noticeable perifollicular pigmentation began after the second session and gradually progressed. By the end of treatment, partial but visible repigmentation was observed in all treated areas, with VASI score improvement ranging from 20% to 35%, depending on the anatomical site. No adverse effects such as scarring or post-inflammatory pigmentation were reported. The patient tolerated the procedure well and showed high satisfaction.

Conclusion:

Fractional CO_2 laser combined with topical phenytoin may be a promising, minimally invasive option in managing stable vitiligo in pediatric patients. While full repigmentation was not achieved, significant improvement and tolerability suggest that further studies on this combination therapy are warranted, particularly in children.

Abstract N°: 7575

oral metformin vs tranexamic acid in melasma: effective alternative or emerging competitor?

Shivani Gahlot*[1]

[1]India, dermatology, bihar, India

Introduction & Objectives:

Melasma is a common, chronic hyperpigmentation disorder predominantly affecting women, with significant psychosocial impact. Oral tranexamic acid (TXA) is an established treatment known to reduce melanocyte activity via inhibition of the plasminogen-plasmin pathway. Metformin, through activation of the AMPK pathway, may reduce melanogenesis and represents a potential economical alternative. This study aimed to compare the efficacy and safety of oral metformin versus oral TXA in melasma management.

Materials & Methods:

A prospective comparative study was conducted on 50 female patients aged 18–45 years with epidermal or mixed-type melasma. Patients were divided into two groups: Group A received oral metformin 500 mg twice daily, while Group B received oral TXA 250 mg twice daily, both for 12 weeks. Standard photoprotection and topical sunscreen were advised. MASI scores were recorded at baseline, 4, 8, and 12 weeks. Patient satisfaction was assessed using a 5-point Likert scale. Adverse effects were documented. Data analysis was done using SPSS v26. Paired and unpaired t-tests were used for MASI comparisons, and chi-square test for categorical variables. Ethical committee clearance was obtained, and informed consent was taken from all participants.

Results:

Both groups showed statistically significant MASI score reduction from baseline to 12 weeks ($p<0.001$). Group B (TXA) showed a higher mean MASI reduction (45.3%) compared to Group A (metformin, 34.6%), with the difference being significant ($p=0.04$). Visible improvement occurred earlier in the TXA group (week 4) than in the metformin group (week 6). Gastrointestinal disturbances were mild and more frequent with metformin (20%) than TXA (13.3%). Patient satisfaction scores were higher in the TXA group ($p=0.03$). An 8-week post-treatment follow-up showed no significant relapse in either group.

Conclusion:

Oral TXA demonstrated superior efficacy and earlier onset of improvement compared to oral metformin, with both being safe and well-tolerated. Metformin, being cost-effective and orally administered, stands as a promising alternative, especially in patients with contraindications to TXA or concurrent metabolic concerns. Further large-scale, long-term studies are warranted.

Abstract N°: 7578

comparative evaluation of cysteamine combined with co2 versus nd:yag laser in the treatment of melasma: a prospective study

Shivani Gahlot*[1]

[1]India, dermatology, bihar, India

Introduction & Objectives:

Melasma is a chronic hyperpigmentary condition often resistant to conventional treatments. Cysteamine, a potent antioxidant and skin-lightening agent, inhibits melanin synthesis and may enhance the effects of laser therapies. This study aimed to compare the efficacy and safety of cysteamine in combination with fractional CO_2 laser versus Q-switched Nd:YAG laser in the treatment of melasma and to assess patient satisfaction with each approach.

Materials & Methods:

A prospective, comparative study was conducted involving 50 patients diagnosed with melasma. They were randomly assigned into two groups (n = 25 each). Group 1 received fractional CO_2 laser therapy combined with topical cysteamine 5% cream, while Group 2 received Q-switched Nd:YAG laser with topical cysteamine. Treatments were performed at 3-week intervals, for a total of five sessions. Cysteamine was applied nightly for 15 minutes throughout the study period. Melasma type and depth were evaluated using Wood's lamp. Efficacy was assessed using the Melasma Area and Severity Index (MASI), along with standardized clinical photographs. Adverse effects and patient satisfaction were recorded.

Results:

Both treatment groups showed significant improvement in MASI scores by the end of the study. However, the combination of cysteamine with CO_2 laser therapy (Group 1) yielded superior results, with a higher proportion of patients achieving more than 50% reduction in MASI scores. Patients in this group also reported greater satisfaction with visible improvement. Mild and transient side effects such as erythema and burning were noted, particularly in the CO_2 laser group, but resolved spontaneously without the need to discontinue treatment.

Conclusion:

The combination of cysteamine with fractional CO_2 laser appears to be more effective than with Q-switched Nd:YAG laser in the management of melasma. It offers enhanced pigment reduction and greater patient satisfaction with acceptable safety. This combination may serve as a promising therapeutic option for patients with persistent melasma.

Abstract N°: 7624

Reducing Hidden Spots: A Vehicle-Controlled Study on the Efficacy of Thiamidol for Managing Subclinical Hyperpigmentation

Heike Foelster[1], Lisa Koelln[1], Ralf Hagens[1], Wolfgang Philipp-Dormston[2], Barbara Schuster[1]

[1]BeiersdorfAG, Hamburg
[2]Dermatologikum, Köln

Introduction & Objectives:

Facial hyperpigmentation is a major concern for many individuals. While the main treatment goal is to diminish visible discolorations, hyperpigmentation encompasses more than meets the eye; melanin accumulations can exist in the deeper layers of the epidermis and might not always be visible, so called “hidden spots”. Although initially imperceptible, they may become visible, particularly with UV exposure. Thiamidol (Isobutylamido-Thiazolyl-Resorcinol), the first tyrosinase inhibitor developed on human tyrosinase, has proven strong efficacy for the reduction of visible hyperpigmentation. A preliminary pilot study conducted last year indicated its potential to also address invisible hyperpigmentation. This study aims to evaluate the effectiveness of a Thiamidol-containing skin care regimen in reducing “hidden spots” in a vehicle-controlled design and investigate their reappearance.

Materials & Methods:

A monocentric, observational vehicle-controlled study was conducted from June to September 2024. Hidden spots were visualized using a UV-flash and UVA photography with a specialized Canon EOS-5D Mark III camera modified to detect exclusively in the UVA spectrum. UV radiation penetrates the epidermis and is absorbed by melanin, allowing for the visualization of dark spots within the skin layers which might be imperceptible through standard visual assessment. Images were also obtained using the Canfield VISIA CR Facial Imaging System. Participants were partially already part of the previously conducted pilot study.

Participants applied an Thiamidol-containing skincare regimen twice daily for 8 weeks, including a serum and SPF 30 day product in the morning, and serum and night care in the evening. Clinical images were captured at baseline, 4, 8 and 10 week using UVA photography and the Canfield VISIA CR System. Hidden spots were analyzed with an AI-based image processing algorithm developed to quantify multi-modal VISIA images. The color difference between the spot area and the adjacent skin area was extracted per spot using individual typology angle (ITA).

Results:

Forty-six participants with hidden spots completed the study. A minimum of three hidden spots per participant were analyzed after 10 weeks application, revealing a significant decrease in Delta E and Delta ITA values for the treatment group, while no changes were observed in the vehicle group.

Further results will be presented at the time of the congress, focusing on the follow-up of volunteers over 1 year, including two phases of treatment and 6 months remission in between.

Conclusion:

This vehicle-controlled study demonstrates that a Thiamidol-containing skincare regimen effectively reduces the severity of “hidden spots”—melanin accumulations in the skin not yet visible on the surface. By targeting melanin production at its source, Thiamidol shows promise in addressing not only visible hyperpigmentation but also

subclinical accumulations that may emerge over time. Continued analysis, including clinical grading of pigmentation severity, will enhance our understanding of this regimen's effectiveness. These findings support Thiamidol's potential for holistic management of hyperpigmentation concerns, including those that are not immediately apparent.

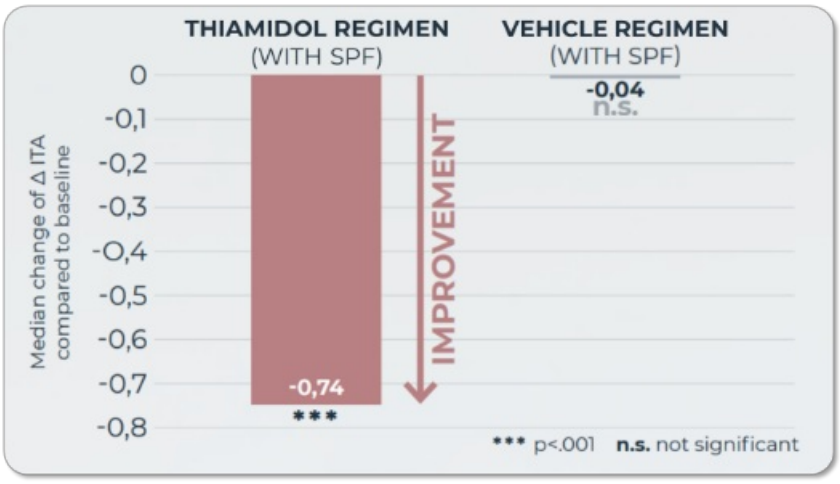


Figure 1: Delta E of hidden spots at baseline and after 10 weeks

EADV Congress 2025, PARIS
17 SEPTEMBER - 20 SEPTEMBER 2025
POWERED BY M-ANAGE.COM

Abstract N°: 7786

Radiotherapy-Induced Vitiligo in a 56-Year-Old Female Post-Cavum Carcinoma Treatment: A Case Report

Sara Nejjari[1], Ghita Basri[1], Inas Chikhaoui[1], Soumia Chiheb[1]

[1]Cheikh Khalifa Bin Zayed Al Nahyan Hospital, casablanca

Introduction & Objectives:

Vitiligo is a depigmenting disorder characterized by the loss of melanocytes in the skin, leading to well-demarcated white patches. Although primarily considered an autoimmune condition, vitiligo has been observed as a secondary effect following various medical treatments, including radiotherapy. This case report discusses a 56-year-old female patient with a history of nasopharyngeal carcinoma (NPC), who developed vitiligo in the irradiated field following chemoradiotherapy. Understanding this phenomenon is crucial for clinicians to differentiate between treatment-induced changes and disease progression.

Materials & Methods:

The patient, a 56-year-old female with no significant medical history, was diagnosed with nasopharyngeal carcinoma and underwent surgical resection followed by 35 sessions of radiotherapy. During the course of radiotherapy, she developed well-demarcated depigmented patches on the skin corresponding to the irradiated area. The onset of these patches coincided with the commencement of radiotherapy and progressively expanded over the treatment period. No new lesions appeared outside the irradiated field. A skin biopsy was performed, confirming the absence of melanocytes in the affected areas, consistent with vitiligo.

Results:

Radiotherapy-induced vitiligo is a rare but documented phenomenon, particularly in patients undergoing treatment for head and neck cancers. The pathogenesis is thought to involve immune-mediated destruction of melanocytes within the irradiated skin. Radiation can induce the release of pro-inflammatory cytokines and reactive oxygen species, leading to local immune responses that target melanocytes. Additionally, radiation may cause direct DNA damage to melanocytes, impairing their function and survival. While the exact mechanisms remain under investigation, the occurrence of vitiligo in the irradiated field suggests a localized immune-mediated response.

The clinical significance of radiotherapy-induced vitiligo is primarily cosmetic, as it does not indicate disease recurrence or metastasis. However, the development of vitiligo can serve as an early marker of immune system activation, which may have implications for the patient’s overall prognosis and response to treatment. It is essential for clinicians to recognize this side effect to avoid unnecessary investigations and provide appropriate counseling to patients.

Conclusion:

In this case, the development of vitiligo in the irradiated field following chemoradiotherapy for nasopharyngeal carcinoma underscores the importance of recognizing treatment-induced skin changes. While radiotherapy-induced vitiligo is a rare occurrence, its identification is crucial for distinguishing between treatment effects and disease progression. Further research is needed to elucidate the underlying mechanisms and to develop strategies for managing this side effect in patients undergoing radiotherapy.

Abstract N°: 7789

A systematic review of case series and clinical trials investigating systemic oral or injectable therapies for the treatment of vitiligo

Alireza Jafarzadeh*[1]

[1]Department of Dermatology, Rasool Akram Medical Complex Clinical Research Development Center (RCRDC), School of Medicine, Iran University of Medical Sciences, Tehran, Iran , Tehran, Iran

Introduction & Objectives:

The purpose of this study is to investigate the effectiveness and safety of oral and injectable systemic treatments, such as methotrexate, azathioprine, cyclosporine, tofacitinib, baricitinib, corticosteroids, statins, zinc, apremilast, etc., for treating vitiligo lesions.

Materials & Methods:

Databases including PubMed, Scopus, and Web of Science were meticulously searched for studies spanning from 2010 to August 2024, focusing on systemic oral and injectable therapies for vitiligo, using comprehensive keywords and search syntaxes tailored to each database. Key data extracted included study design, treatment efficacy, patient outcomes, patient satisfaction, and safety profiles.

Results:

In a total of 42 included studies, oral mini-pulse corticosteroid therapy (OMP) was the subject of six studies (14.2%). Minocycline was the focus of five studies (11.9%), while methotrexate, apremilast, and tofacitinib each were examined in four studies (9.5%). Antioxidants and Afamelanotide were the subject of three studies each (7.1%). Cyclosporine, simvastatin, oral zinc, oral corticosteroids (excluding OMP) and injections, and baricitinib were each explored in two studies (4.8%). Azathioprine, mycophenolate mofetil, and Alefacept were the subjects of one study each (2.4%).

Conclusion:

Systemic treatments for vitiligo have been successful in controlling lesions without notable side effects. OMP, Methotrexate, Azathioprine, Cyclosporine, Mycophenolate mofetil, Simvastatin, Apremilast, Minocycline, Afamelanotide, Tofacitinib, Baricitinib, Antioxidants, and oral/injectable corticosteroids are effective treatment methods. However, oral zinc and alefacept did not show effectiveness.

Abstract N°: 7810

Efficacy and Safety of Small Molecule Inhibitor Therapies for Vitiligo: A Systematic Review in Adults, Adolescents, and Children

Alireza Jafarzadeh*[1]

[1]Department of Dermatology, Rasool Akram Medical Complex Clinical Research Development Center (RCRDC), School of Medicine, Iran University of Medical Sciences, Tehran, Iran , Tehran, Iran

Introduction & Objectives:

Recent advances in vitiligo treatment have emerged with the introduction of Janus kinase inhibitors (JAKIs) and small molecule inhibitors (SMIs). These novel treatment modalities target specific inflammatory pathways, potentially improving outcomes for vitiligo in adults, adolescents, and children. This study aims to evaluate the efficacy and safety of JAKIs and SMIs in the treatment of vitiligo across different age groups: adults, adolescents, and children.

Materials & Methods:

A systematic literature search was conducted using PubMed, Scopus, and Web of Science, following PRISMA guidelines. Included studies reported on systemic treatments using JAKIs and SMIs for vitiligo and provided separate data for children (ages 2–12), adolescents (ages 12–18), and adults (over 18). Extracted data included patient demographics, treatment regimens, efficacy outcomes, adverse effects, and follow-up information. Risk of bias was assessed using the ROBINS-I tool for non-randomized studies and the Cochrane Risk of Bias Tool (RoB2) for randomized studies.

Results:

Out of 987 screened studies, 25 met the inclusion criteria. Analysis showed that JAKIs—including Tofacitinib, Ritlecitinib, Upadacitinib, Baricitinib, and Abrocitinib—and the phosphodiesterase-4 inhibitor (PDE4i) Apremilast demonstrated promising efficacy in treating vitiligo across all age groups. Ritlecitinib was the most extensively studied, reported in 5 studies (20%) involving 1,686 patients (65.5%), and showed significant improvements in both Facial-VASI and Total-VASI scores, especially when combined with NB-UVB phototherapy. Tofacitinib was reported in 8 studies (32%) involving 180 patients (7%), demonstrating up to 75% repigmentation, particularly in sun-exposed areas and pediatric populations, with enhanced efficacy when used with phototherapy. Upadacitinib, evaluated in 2 studies (8%) with 270 patients (10.5%), showed ≥35% improvement in Facial-VASI scores, though higher doses were linked to more adverse events, including a serious non-fatal ischemic stroke. Baricitinib, examined in 2 studies (8%) with 41 patients (1.6%), achieved >50% VASI improvement in 70.6% of patients when combined with NB-UVB. Apremilast, covered in 6 studies (24%) with 369 patients (14.4%), offered partial disease control and up to 61.5% repigmentation, but was generally less effective than corticosteroids in halting progression. A comparative case series involving 15 patients (0.6%) found similar efficacy among Tofacitinib, Baricitinib, and Upadacitinib (~41% VASI improvement).

Conclusion:

JAKIs and SMIs represent promising treatment options for vitiligo in adults, adolescents, and children, offering greater efficacy compared to traditional therapies. However, treatments like Apremilast showed mixed results regarding efficacy. Despite these encouraging findings, further research is needed to assess long-term safety, particularly in pediatric and adolescent populations. Future studies should focus on age-specific safety and

efficacy profiles of these therapies.

Abstract N°: 7836

Understanding the Management and Treatment of Non-Segmental Vitiligo (NSV) in the United States, United Kingdom, France, Germany, Spain, and Italy

Samantha Kurosky[1], Roni Adiri[2], Tatjana Lukic[1], Mojgan Sadrarhami[1], Alexandra Kissling[3], Gabriela Burgos[3], Jennifer OBrien[3], Iltefat Hamzavi[4], Richard H Huggins[4], Viktoria Eleftheriadou[5, 6], Mauro Picardo[7], José Luis López Estebaranz[8], Thierry Passeron[9], Julien Seneschal[10], Khaled Ezzedine[11]

[1]Pfizer Inc, New York, NY, United States
[2]Pfizer Pharmaceutical LTD, Herzliya Pituach, Israel
[3]Oracle Life Sciences, Austin, TX, United States
[4]Henry Ford Medical Center, Vitiligo Treatment and Research Center, Detroit, MI, United States
[5]Vitiligo Clinical and Research Centre (Vitiligo CARE) for adult and paediatric patients, Royal Wolverhampton NHS Trust, Wolverhampton, United Kingdom
[6]School of Health Sciences, College of Medicine & Health, University of Birmingham, Birmingham, United Kingdom
[7]IDI-IRCCS Istituto Dermopatico dell'Immacolate, Rome, Italy
[8]Hospital Universitario Fundación Alcorcón, Department of Dermatology, Madrid, Spain
[9]University Côte D'Azur, CHU Nice, Department of Dermatology, Nice, France
[10]CHU de Bordeaux, Dermatology and Pediatric Dermatology, National Reference Center for Rare 25 Skin Disorders, Hôpital Saint-André, UMR 5164, Bordeaux, France
[11]Henri Mondor University Hospital and Universite Paris-Est Creteil Val de Marne, Paris, France

Introduction & Objectives:

NSV is an autoimmune disease leading to bilateral pigment loss in the skin and is associated with significant psychosocial impairment. This study examines dermatologists and nurse practitioners/physician assistants' (NP/PAs) approach to diagnosing NSV, defining severity, and selecting treatment.

Materials & Methods:

Sixty-five healthcare providers (HCPs) from academic and community settings in the US, UK, Germany, Spain, France, and Italy (11 dermatologists and 4 NP/PAs in the US; 10 dermatologists in each other country) participated in 45-minute, 1:1 web-based audio interviews, conducted in their native language (January-March 2025). Thematic and content analyses of the transcripts were performed using MaxQDA.

Results:

HCPs used visual/clinical assessments to diagnose patients. Percent body surface area (%BSA), lesion location, and patient quality of life (QOL) were top considerations in determining disease severity across countries. Patient's perception of severity (UK), rate of progression, prior treatment response, and contrast between patches and skin tone (Germany, Spain, and the UK) also played a role in severity determination. Use of scales, such as Dermatology Life Quality Index, to measure severity was used by US academic HCPs and both academic and community HCPs in Europe. European HCPs did not typically use "mild, moderate, severe" to define severity, but rather relied on QOL impact.

The main goal of treatment was repigmentation and, in cases of high disease activity, stabilization. Treatment

goals were shared decisions with patients, as treatment was not seen as necessary from a skin perspective but rather for improving QOL. Topical steroids and calcineurin inhibitors were often first-line therapies. When needed and in cases with ≤10% BSA, patients were switched to topical JAK inhibitor, though cost (US) and lack of reimbursement (UK) limited access to this treatment. When %BSA impacted was higher and the goal is repigmentation, phototherapy is commonly used, particularly in Europe. UK patients may face waitlists for phototherapy, as access may be limited. Systemic therapy is recommended in cases with rapid progression, topicals are impractical (e.g., high %BSA), or when other therapies have failed. In cases where systemic therapy is not prescribed, the lack of evidence of long-term impacts (UK and Spain) and side effect concerns (UK, Italy, Spain) are driving factors. Disease progression and stabilization following treatment initiation are identified via clinical observation, occasionally tracking with photography and lesion measurement. Definitions of treatment success vary and were set with the patient.

Conclusion:

There is no clear definition of vitiligo severity. HCPs rely on QOL, %BSA, and lesion location, among other factors, to assess disease severity. In Europe, particularly the UK and Spain, QOL plays a central role in rating disease severity, providing a metric to guide patient-centered care and inform future guidelines for NSV management. Available treatments carry access challenges such as a lack of reimbursement/cost, and long waiting lists. Off-label systemic therapies are prescribed when topicals are impractical or other therapies have failed, but concerns about their long-term impacts and safety profiles limit their use. Further research and development of accessible treatments, particularly systemic therapies that can be used long-term, are imperative for improving patient outcomes.

Abstract N°: 7984

Heterogeneity of Vitiligo Severity: Examining Trends in Clinical Characteristics and Discrepancies in Patient and Dermatologist-Assessed Severity

Iltefat Hamzavi[1], Simon Chen[2], Samantha Kurosky[2], Simran Marwaha[3], Richard H Huggins[1], Roni Adiri[4], Viktoria Eleftheriadou[5, 6], Tatjana Lukic[2], Mauro Picardo[7], Naomi Brown[3], José Luis López Estebaranz[8], Mojgan Sadrarhami[2], Thierry Passeron[9], Julien Seneschal[10], Khaled Ezzedine[11]

[1]Vitiligo Treatment and Research Center, Henry Ford Health, Detroit, MI, United States
[2]Pfizer Inc, New York, NY, United States
[3]Adelphi Real World, Bollington, United Kingdom
[4]Pfizer Pharmaceutical LTD, Herzliya Pituach, Israel
[5]Vitiligo Clinical And Research CEntre (Vitiligo CARE) for adult and paediatric patients, Royal Wolverhampton NHS Trust, Wolverhampton, United Kingdom
[6]School of Health Sciences, College of Medicine & Health, University of Birmingham, Birmingham, United Kingdom
[7]IDI-IRCCS Istituto Dermopatico dell'Immacolata, Rome, Italy
[8]Hospital Universitario Fundación Alcorcón, Department of Dermatology, Madrid, Spain
[9]University Côte D'Azur, CHU Nice, Department of Dermatology, Nice, France
[10]CHU de Bordeaux, Dermatology and Pediatric Dermatology, National Reference Center for Rare Skin Disorders, Hôpital Saint-André, UMR 5164, F-33000, Bordeaux, France
[11]Henri Mondor University Hospital and Université Paris-Est Créteil Val de Marne, Paris, France

Introduction & Objectives:

Vitiligo is an autoimmune skin disease characterized by skin depigmentation due to the destruction/loss of melanocytes. Nonsegmental vitiligo (NSV) is the most common subtype, occurring in approximately 85-90% of cases and characterized by bilateral distribution of depigmented lesions. The criteria for evaluating NSV severity are not well-established. Although the extent of disease is typically a key factor in severity assessments, many dermatologists argue that patient impact and experiences should also be considered to accurately gauge the severity of their disease. The objectives of this study were to identify trends in NSV patient demographics, clinical characteristics, and treatment history with physician-assessed mild, moderate, and severe vitiligo at the treatment selection decision point, and examine discordance/concordance between physician-assessed and patient-reported severity.

Materials & Methods:

Clinical data and severity assessments were drawn from the Adelphi Vitiligo Disease Specific Programme™, a real-world cross-sectional survey with elements of retrospective data collection, conducted between 2021-2022 from dermatologists and their patients in the US, UK, France, Germany, Spain, and Italy. Dermatologists provided clinical information on 1,299 adults (aged ≥ 18 years) with NSV and dermatologists-assessed disease severity classification of mild, moderate, or severe at the start of the patient's most recent treatment and at the time of the survey. A subset of patients retrospectively provided additional information on their disease severity rating at the same time points. Cohen's weighted Kappa was assessed to examine agreement between dermatologist- and patient-reported severity.

Results:

For patients included in this analysis, the mean age was 37 years, mean disease duration was 4 years, and 25% had a family history of vitiligo. There was moderate agreement between dermatologist- and patient-assessed disease severity at initiation of their latest treatment (wKappa, 0.5037). Among those that disagreed (n=143, 33%), 75% of patients rated their vitiligo more severely than their dermatologist. At initiation of their latest treatment, the majority of mild (75%), moderate (95%), and severe (100%) patients had lesions on ≥4% of their body surface area (%BSA). 61% had lesions on the face, 43% on the torso, 47% on the hands, 48% on upper extremities, and 31% on lower extremities at initiation of their latest treatment. The prevalence of affected regions worsened with increasing physician-assessed severity (mild, moderate, severe: 52%, 64%, 79% [face], 31%, 46%, 68% [torso], 39%, 50%, 67% [hands], 31%, 54%, 74% [upper extremities], 14%, 30%, 48% [lower extremities]). Most mild, moderate, and severe patients had no signs of inflammation (97%, 92%, 87%, respectively) and no signs of hyperpigmentation around lesions (97%, 93%, 90%, respectively) at the start of their most recent treatment.

Conclusion:

While clinical characteristics showed directional trends with worsening severity, these features were observed across all severity categories, highlighting the heterogeneity of clinical characteristics in NSV. As patients tended to rate their vitiligo more severely than physicians, future studies should take a broad perspective to further examine how dermatologists incorporate the patient perspective and impact on QoL into severity determination.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 8017

Comparative Effectiveness of Photobiomodulation Therapy（PBMT） Combined with Cord Blood-Derived Platelet-Rich Plasma or Picosecond Laser for Melasma: A Prospective Split-Face Clinical Trial

Chenjie Zheng[1], Ni Zeng*[1], nana sun[1]

[1]Affliated Hospital of Zunyi Medical University, Cosmetic dermatology, Zunyi, China

Introduction & Objectives: Melasma is a prevalent skin pigmentation disorder, primarily affecting women, characterized by irregular brown patches on the face, which can significantly impact both appearance and psychological well-being. Combination thetapies have emerged as promising options for melasma management. 590 nm light-emitting diodes (590 nm LED) could inhibit melanogenesis through the photobiomodulation (PBM) of melanocytes and keratinocytes and anti-inflammatory effects to modulate melanin metabolism with reduced epidermal damage. Cord blood derived platelet-rich plasma contains higher concentrations of growth factors (e.g. VEGF, EGF, TGF-beta, etc.) and anti-inflammatory molecules than autologous blood-derived platelet-rich plasma, which may be more effective in inhibiting melanin synthesis and promoting skin repair. Picosecond lasers, utilizing ultrashort pulse durations to generate photomechanical effects, demonstrate enhanced efficacy in fragmenting pigment particles and suppressing melanocyte activity compared to traditional nanosecond lasers, potentially minimizing thermal injury and PIH risks. This study aims to systematically evaluate the clinical efficacy of yellow light combined with umbilical cord blood-derived platelet-rich plasma and yellow light combined with picosecond laser as a combination therapy for melasma patients.

Materials & Methods: In this prospective, randomized, bilateral facial controlled trial, 28 female participants with melasma were recruited and randomly assigned to receive either CB-PRP on one side of the face, with the opposite side serving picosecond laser treatment. 590 nm LED was given to both sides of the face. The modified melasma area and severity index (mMASI) and VISIA-CR skin analysis were employed to assess treatment outcomes.

Results: Mean hemi-mMASI scores at baseline were 6.42 ± 3.18 and 6.49 ± 3.11 for CB-PRP and picosecond laser. At baseline, there was no statistically significant difference ($p = 0.705$). After treatment, mMASI scores in the CB-PRP group (5.37±2.83) declined by 16.35% compared to baseline, compared to a 17.1% decline in the picosecond group(5.38±3.12). there was a significant reduction on both sides ($p < 0.001$). Both treatments significantly reduced post-treatment mMASI scores ($p < 0.001$), with no statistically significant difference between the groups ($p = 0.964$), indicating comparable treatment efficacy. In the feature count view of Visia-CR, there was no significant difference between the CB-PRP and picosecond groups in the counts of each feature at baseline. However, after treatment, the red area and texture metrics showed significant differences. And the score of red area was 928.07 ± 475.22 in the CB-PRP group compared to 858.96 ± 506.50 ($t = 2.114$, $p = 0.044$). CB-PRP exhibited superior improvement in red areas and texture compared to the picosecond group ($p < 0.05$), suggesting potential advantages in specific skin characteristics. There were no serious side effects reported.

Conclusion: It was found that both PBMT combined with CB-PRP and PBMT combined with picosecond laser were effective in treating melasma.PBMT in combination with CB-PRP was not significantly different from PBMT combined with picosecond laser in reducing mMASI.

PBMT combined with CB-PRP is superior to PBMT combined with a picosecond laser in improving the red area and texture.

Abstract N°: 8179

Upadacitinib and its role in the vitiligo treatment: a potential therapeutic tool

Alba Nácher Albiach[1], Laura Giménez Cuenca[1], Andrés Grau Echevarría[1], Malena Finello[1], Daniel Blaya Imbernón[1], Ángel González García[1], Elena Pérez Zafrilla[1], Altea Esteve Martínez[1], Pablo Hernández Bel[1], Esther Díez Recio[1], Jorge Magdaleno Tapial[1]

[1]Hospital General Universitario de Valencia, Valencia, Spain

Upadacitinib and its role in the vitiligo treatment: a potential therapeutic tool

Introduction & Objectives: Vitiligo is the most common acquired dyschromia, affecting 0.1–2% of the global population. It is an autoimmune disorder characterized by the loss of melanocytes, clinically presenting as achromic macules and poliosis with variable extension. Despite its prevalence and psychological impact, effective therapeutic options remain limited. This study presents a series of 25 patients with vitiligo treated with upadacitinib, a selective Janus kinase 1 (JAK1) inhibitor.

Materials & Methods: The efficacy of upadacitinib in patients with vitiligo was assessed by evaluating changes in the Vitiligo Extent Score (VES) and Body Surface Area (BSA) at weeks 12 and 24.

Results: A series of 25 patients with vitiligo treated with upadacitinib is presented, with a mean baseline VES of 35. The 90% of patients showed improvement in the VES following treatment, with a mean VES of 18 at 24 weeks in those who adhered properly to the treatment. No serious adverse events were reported. Only one patient discontinued treatment due to lack of efficacy at 24 weeks.

Conclusion: This patient series supports the use of upadacitinib as an effective therapeutic alternative for the vitiligo treatment. However, larger studies with control groups are needed to fully assess its efficacy.

Abstract N°: 8369

Familial Speckled Acral Hypopigmentation with a strong family history.

Mohamed Karideen Fathima Benazir*[1], Akalanka De Silva[2], Nadeesha Dinaratne[2], Sriyani Samaraweera[1], Janaka Akarawita[2]

[1]Lady Ridgeway hospital for children, Colombo, Sri Lanka
[2]National Hospital of Sri Lanka, Colombo, Sri Lanka

Familial Speckled Acral Hypopigmentation with a strong family history.

Introduction & Objectives:

Familial speckled acral hypopigmentation presents with hypopigmented macules, distributed symmetrically over acral sites without any associated mucocutaneous or systemic symptoms. Only few cases of familial speckled acral hypopigmentation were reported worldwide.

Materials & Methods:

16 year old previously healthy boy presented with multiple hypopigmented macules over bilateral hands and feet for eight months. They were asymptomatic lesions. There was no history of seizures or learning disability. On examination, small hypopigmented macules were distributed over bilateral hands, forearms and feet. Father and paternal grandmother also had lesions with same morphology over hands and feet which persisted since their teenage without any complications. No accentuation of hypopigmentation was noted on wood's lamp examination. Skin biopsy showed reduced pigmentation of basal layer with normal number of melanocytes. The patient may need further genetic studies for the confirmation. The clinical picture, biopsy findings and strong family history suggested the diagnosis of familial speckled acral hypopigmentation. The patient was offered a trial of narrow band UVB phototherapy but he has refused.

Results:

Speckled, guttate or confetti like hypopigmentation can occur in various clinical conditions like vitiligo, progressive macular hypomelanosis and tuberous sclerosis complex. But hypopigmented macules over acral site without other mucocutaneous or systemic involvement and strong family history is suggestive of Familial speckled acral hypopigmentation. In skin biopsy number of melanocytes may be reduced or normal unlike in vitiligo which has absent melanocytes. Even though some patients were treated with tacrolimus in literature but it didn't show improvement.

Conclusion:

Knowing this rare entity by dermatologists helps to alleviate patients' anxiety on vitiligo and tuberous sclerosis. Both present with hypopigmentation but require continuous follow up and treatment.

EADV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 8415

Fractional Q-switched 532-nm Nd:YAG laser for the treatment of cafe au lait macules

Trang Nguyen[1], Huy Luong VU[1], Tam Tran[1], Le Huu Doanh[1]

[1]National Hospital of Dermatology and Venereology, Hanoi, Viet Nam

Introduction & Objectives:

Café-au-lait macules (CALMs) are common pigmented skin lesions that can be therapeutically challenging. The fractional 532-nm Q-switched Nd:YAG laser, which selectively targets melanin while sparing surrounding tissue, has shown promise in treating CALMs. However, data regarding its clinical efficacy and predictive factors for treatment response remain limited. This study aimed to evaluate the effectiveness of fractional Q-switched 532-nm Nd:YAG laser for CALMs and identify lesion characteristics associated with treatment outcomes.

Materials & Methods:

We conducted a prospective cohort study involving 51 patients with CALMs treated using a fractional 532-nm Q-switched Nd:YAG laser. Treatment was administered with a fractional handpiece (4×4 mm spot size) using a single non-overlapping pass at one-month intervals. Lesion clearance was assessed by independent dermatologists using standardized clinical photographs and scored via a Visual Analog Scale (VAS). Clinical responses were categorized as follows: Excellent (≥75% clearance), Good (50–74%), Fair (25–49%), and Poor (0–24%). Patient demographics, lesion morphology (border regularity and color), and adverse events were documented to analyze prognostic factors influencing treatment outcomes.

Results:

The cohort comprised 51 patients (26 males, 25 females; average age 9.1 years, range 1–31), with 41% under age six. Overall, 72% achieved excellent improvement, 6% good improvement, and 22% had poor or no response. Response rates varied significantly by lesion characteristics: CALMs with irregular borders and either light or dark brown color (44 patients) had the highest response, with over 80% achieving excellent clearance, while lesions with regular borders and dark brown color (5 patients) had the poorest response, with 100% showing poor improvement. Age and gender had no impact on treatment outcomes. Adverse events included transient hypopigmentation in 4 patients (7.8%), which resolved within one month, and post-inflammatory hyperpigmentation (PIH) in 9 patients (17.6%), persisting beyond three months. Notably, all patients with regular-bordered, dark brown CALMs experienced PIH, indicating this morphology as a risk factor for poor response and higher complication rates. In cases with excellent improvement, no recurrence of lesions was observed after six months of follow-up from the final treatment session.

Conclusion:

Our findings indicated that Fractional 532-nm Q-switched Nd:YAG laser is an effective and safe therapy for treating CALMs. Lesion morphology, particularly border regularity and color, is a key prognostic factor: irregular-bordered CALMs show the best outcomes, whereas regular-bordered lesions are more likely to have poor responses and a higher rate of PIH. These findings underscore the importance of initial lesion characteristics in optimizing patient selection and treatment planning.

Abstract N°: 8421

Unveiling Lichen pigmentosus: Dermoscopic Insights and Activity Markers

Hyba Taounza*[1], yosra benkraiem[1], maha habibi[1], Sara Messaoud[2], Laila benzekri[1], Mariame Meziane[1]

[1]Ibn sina university hospital, Dermatology, Rabat, Morocco
[2]Laboratory of biostatics, clinical research and epidemiology, Public Health, Rabat, Morocco

Introduction & Objectives:

Lichen planus pigmentosus (LPP) is a rare variant of lichen planus (LP), which can have significant psychological impact and social stigmatization. The choice of appropriate treatment depends on the extent of the LPP and its activity. The aim of this study was to describe the main dermoscopic features of PLP and correlate them with disease activity.

Materials & Methods:

This is a prospective, cross-sectional, descriptive, and analytical study conducted over four months, including patients with clinically and/or histopathologically diagnosed LPP. Clinically active LPP was defined by the recent appearance of new lesions, pruritus, or erythema. Dermoscopic analysis focused on describing different pigmentary and vascular patterns in active and inactive LPP lesions.

Results:

We enrolled 42 patients, of whom 88% were women, with a mean age of 45 years. 68% of patients had phototype IV. Pruritus was present in 32%, and only 2% had clinically erythematous lesions. The most common lesion location was the face (81%). The most frequently observed dermoscopic patterns were: a light brown background in 78% of cases, erythema in 53.6%, dark brown background in 24.4%. Linear distribution of dots was seen in 11.8%, peppering in 47.1%, arciform pattern in 14.7%, with 8.8% showing a complete reticular distribution and 17.6% an incomplete reticular pattern. The distribution of globules was regular in 40%, irregular in 40%, and arciform in 20%. Target-like appearances were present in 22%, hyperpigmentation in 36.6%, and pseudo-net-like structures in 41.5%. Recently described rhomboid structures were observed in 17.1% of cases. Telangiectasias were seen in 4.9%. The only dermoscopic sign significantly associated with activity was erythema ($p = 0.002$).

Conclusion:

LPP exhibits dermoscopic features distinct from other lichen variants. It can be associated with other causes of hyperpigmentation, emphasizing the importance of dermoscopy both for diagnosis and for identifying activity markers of the disease, which can guide therapeutic decisions.

Abstract N°: 8433

Comparing the efficacy of topical hydroquinone 2% versus intradermal tranexamic acid microinjections in treating melasma: a split-face controlled trial

Mohammad Darayesh*[1], Nasrin Saki[2]

[1]Jahrom University of Medical Sciences, Medicine, Dermatology Department, Jahrom, Iran
[2]Shiraz University of Medical Sciences, Medicine, Dermatology Department, Shiraz, Iran

Introduction & Objectives:

Melasma is a benign, acquired, and chronic facial hypermelanosis due to hyperactivity of epidermal melanocytes, with a great impact on patient's quality of life. Topical hydroquinone (HQ) is a conventional choice for most hyperpigmentary disorders including melasma. Tranexamic acid (TA) is a relatively new whitening agent that interferes with keratinocyte- melanocyte interactions. The aim of the present study was to compare the efficacy and safety of intradermal injections of TA with HQ 2% in the treatment of melasma.

Materials & Methods:

In this split-face controlled trial, thirty-seven patients were randomized to receive three monthly sessions of 20 mg/ml intradermal injections of TA either on the right or left side of the face and topical HQ 2% once at night for three months on the other side of the face. A colorimeter was utilized to measure melanin and erythema quantitatively for each side of the face separately at the baseline, and at the end of each month. Visual analogue scale (VAS) was also used to compare the efficacy of the two treatments.

Results:

A statistically significant decrease in melasma value was seen for TA and HQ separately (p-value < .001); but not for erythema (p-value = .085, .5, respectively). Monthly TA injection was significantly better than daily HQ in reducing the melanin value at the first four weeks (p-value = 0 .013); but 20-week overall change was not significantly different (p-value = 0 .17). VAS was significantly better for TA (p-value < .001).

Conclusion:

This study showed that monthly intradermal injections of TA can be a more effective choice for the treatment of melasma compared to topical HQ. Further studies are needed to support this conclusion.

Abstract N°: 8436

Erythema ab Igne: A Diagnostic Challenge in an Underappreciated Condition

mahmoud vayza[1], Fouad Mohamed Amine[1], Nesrine Ben Salah[1], gamarra mohamed ali[1], youssef monia[1], bel hadj ali hichem[1], zili jamel[1]

[1]مستشفى فطومة بورقيبة بالمنستير, Dermatology Department, Monastir, Tunisia

Introduction & Objectives:

Erythema ab igne (EAI) is characterized by reticulated erythematous hyperpigmentation associated with epidermal atrophy and telangiectasia, due to repeated and prolonged thermal exposure. We report the case of a patient presenting an unusual location of this condition, linked to the traditional use of the kanoun, a common domestic heat source in rural areas.

Materials & Methods:

NA

Results:

This is a 14-year-old girl, with no medical history, who has had a reticulated, asymptomatic dermatose for one month. Clinical examination reveals a brownish reticulated dermatitis, non-infiltrated, fixed, not blanching upon pressure, located on the palmar surfaces of both hands. The biological assessment was unremarkable. The patient's history reveals prolonged and repeated exposure to the kanoun, which she uses daily in the winter to warm herself. The diagnosis of EAI was made based on the clinical appearance and the interview data. Avoidance of exposure was recommended, and the lesions completely disappeared after two months.

Conclusion:

EAI is a dermatose induced by repeated exposure to infrared rays emitted by various heat sources (fireplaces, radiators, hot water bottles, heaters). It most commonly appears on the lower limbs, abdomen, lower back, and buttocks. However, our case is unusual due to its atypical location. The onset of lesions varies depending on the intensity of the heat source and the frequency of exposure. Clinically, EAI presents as a reticulated erythematous eruption, which then becomes brownish in pigmentation, asymptomatic. Chronic exposure to the heat source causes damage to superficial blood vessels, leading to vessel dilation and hemosiderin deposition. The reticulated "mesh-like" appearance corresponds to the vascular and anastomotic network of the skin. Diagnosis is primarily clinical, supported by the patient's history (exposure to a heat source). EAI typically resolves gradually over several months after cessation of exposure, although pigmentary sequelae may persist in cases of prolonged evolution. Rare cases of squamous cell carcinomas have been reported in chronic forms. Although this condition is not well-known, it is not uncommon in certain populations using traditional heating sources. It warrants greater awareness among practitioners to avoid unnecessary investigations and to provide appropriate preventive measures.

Abstract N°: 8475

Cancer Risk in Vitiligo: No Evidence of Increased Prevalence – A Systematic Review and Meta-Analysis

Alzahra Mohammed*[1, 2, 3, 4], Anna Sára Lengyel[1, 2, 3], Fanni Adél Meznerics[1, 2], István Szondy[1, 2], anna walter[5], Bence Szabó[2], Benedek Nagy[3], Zsófia Csábi[3], András Bánvölgyi[1, 2], Norbert Kiss[1, 2], Péter Hegyi[2, 6, 7], Zsuzsanna Kurgyis[3, 8], Lajos Vince Kemény[1, 2, 3, 9]

[1]Department of Dermatology, Venereology and Dermatooncology, Semmelweis University, Budapest, Hungary
[2]Centre for Translational Medicine, Semmelweis University, Budapest, Hungary
[3]HCEMM-SU Translational Dermatology Research Group, Semmelweis University, Budapest, Hungary
[4]King's College Hospital NHS Foundation Trust, London, United Kingdom
[5]Institute for Translational Medicine, Medical School, University of Pécs, Pécs, Hungary
[6]Institute of Pancreatic Diseases, Semmelweis University, Budapest, Hungary
[7]Institute for Translational Medicine, Medical School, University of Pécs,, Pécs, Hungary
[8]Department of Dermatology and Allergology, Technical University of Munich, Munich, Germany
[9]Department of Physiology, Semmelweis University, Budapest, Hungary

Introduction & Objectives:

Vitiligo, a chronic depigmenting disorder affecting 1–2% of the global population, results from the immune-mediated destruction of melanocytes. While its pathogenesis is multifactorial, the relationship between vitiligo and malignancy risk remains contentious, with some studies suggesting an increased risk while others indicate a potential protective effect, particularly against skin cancer. This study aims to provide a comprehensive evaluation of malignancy risks in vitiligo patients.

Materials & Methods: This systematic review and meta-analysis was conducted in accordance with the PRISMA 2020 guidelines and registered with PROSPERO (CRD42023483130). A comprehensive search was performed across Medline, EMBASE, and Cochrane databases. Studies reporting hazard ratios (HR) for malignancy incidence in patients with vitiligo were eligible for inclusion. Data extraction and risk of bias assessment were undertaken using the Cochrane ROBINS-E tool to ensure methodological rigor.

Results: The systematic search yielded 7,753 records, of which 6,378 remained following the removal of duplicates. After screening, 12 studies met the inclusion criteria for the review, with six subsequently undergoing quantitative analysis. Three separate meta-analyses were conducted focusing on melanoma, non-melanoma skin cancers, and lymphoma. The pooled HR for lymphoma was 1.00 (95% CI: 0.40–2.53), for melanoma 0.80 (95% CI: 0.27–2.34), and for non-melanoma skin cancer 0.38 (95% CI: 0.00–732.76). None of these associations reached statistical significance. Substantial heterogeneity was noted, particularly within the melanoma subgroup (I^2 = 80%). The remaining six studies, excluded from quantitative synthesis due to insufficient or inconsistent data reporting, presented heterogeneous findings, with some indicating increased, decreased, or no change in malignancy risk among patients with vitiligo.

Conclusion:

This meta-analysis did not identify a statistically significant association between vitiligo and the risk of melanoma, non-melanoma skin cancer, or lymphoma. Although some individual studies indicated potential variations in malignancy risk, the overall evidence remains inconclusive, limited by wide confidence intervals and considerable heterogeneity. Clinicians should continue to monitor patients with vitiligo carefully, particularly those undergoing

phototherapy. Further high-quality, longitudinal studies are warranted to elucidate the potential relationship between vitiligo and malignancy risk more definitively.

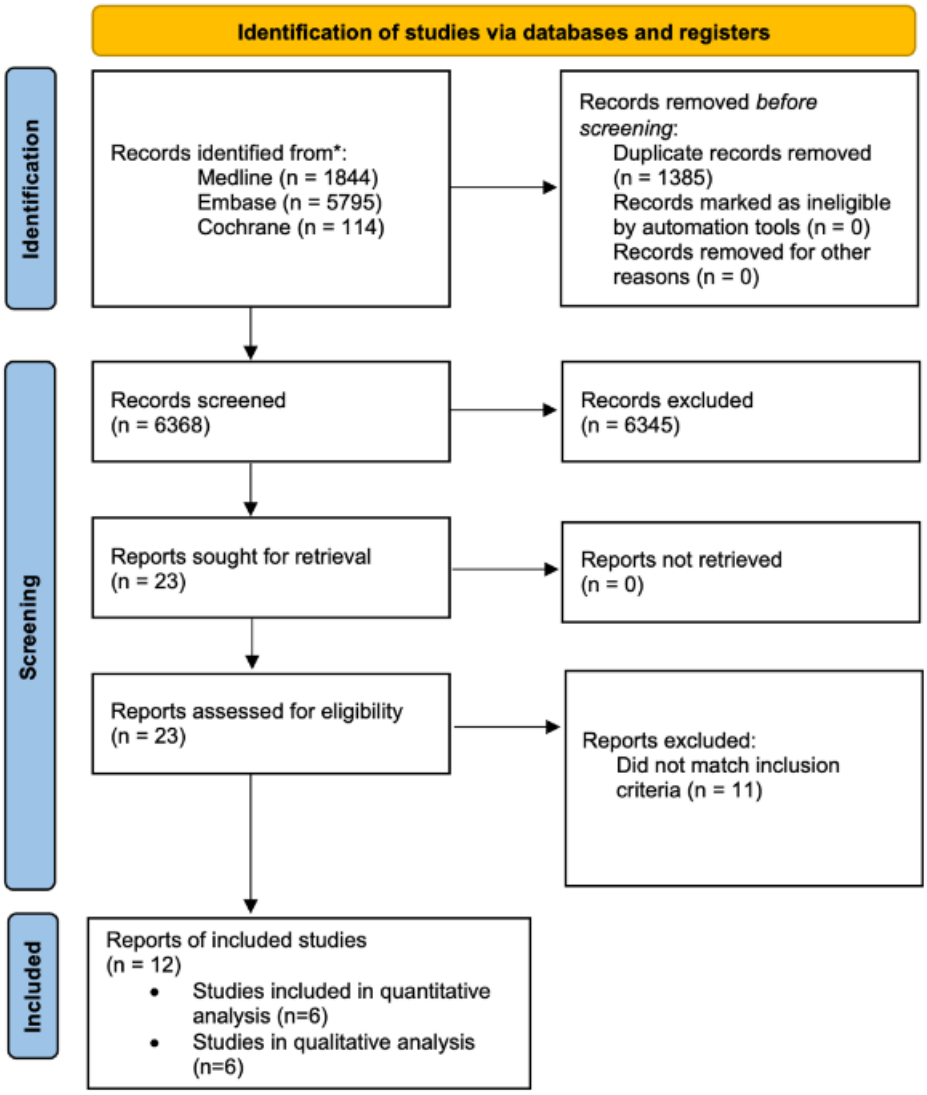


Fig. 1. PRISMA 2020 flow diagram for the selection process.

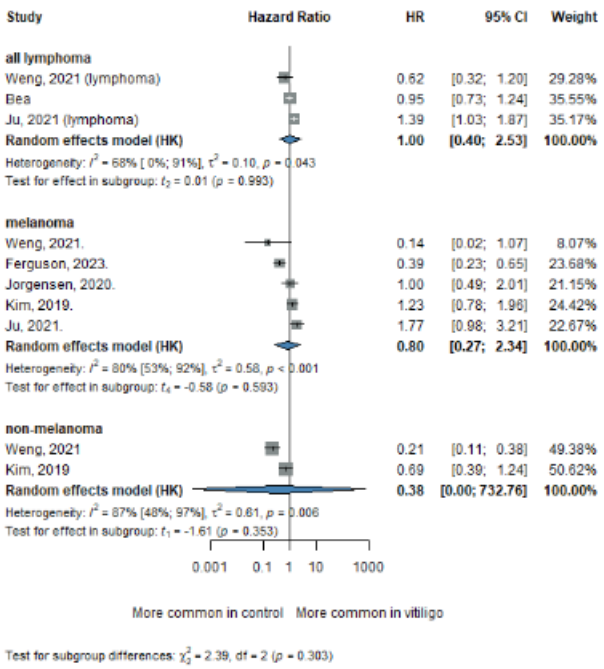


Fig. 2. Forest plot of the meta-analysis assessing the association between vitiligo and the risk of lymphoma, melanoma, and non-melanoma skin cancer.

Abstract N°: 8580

Ex vivo organ culture model of Vitiligo skin acts as preclinical research platform demonstrating Ruxolitinib's anti-inflammatory and pigmentation-promoting responses

Janin Edelkamp* , Thomas Rouille[1], Joana Viola-Söhnlein[1], Sabrina Altendorf[1], Karin Pappelbaum[1], Markus Fehrholz[1], Ilaria Piccini[1], Janin Edelkamp[1], Marta Bertolini[1]

[1]QIMA Life Sciences, QIMA Monasterium GmbH, Münster, Germany

Introduction & Objectives:

Vitiligo is characterized by depigmented areas resulting from the loss of melanocytes. Its pathology is multifactorial and involves genetic predisposition, environmental influences, melanocyte stress, and autoimmune responses. The limited treatment options available underscore the necessity for a deeper understanding of the underlying molecular mechanisms to identify potential therapeutic targets. Therefore, it is crucial to develop predictive preclinical models that accurately reflect the multifaceted nature of the disease. This study aimed to evaluate an optimized vitiligo skin organ culture model for preclinical drug assessment and/or investigation of vitiligo pathobiology, focusing on the effects of the FDA-approved JAK1/JAK2 inhibitor Ruxolitinib (Ruxo).

Materials & Methods:

Biopsies from non-lesional and (peri-)lesional areas of 2 vitiligo patients (1 male, 47, cervical skin and 1 female, 48, upper arm skin) were evaluated by quantitative (immuno-)histomorphometry to identify appropriate sites for sample collection. Biopsies from 2-3 other vitiligo patients (1 male, 2 female, 28-59 y/o, hip and lower back skin, dorsal skin, or sub-mammary skin) were halved and cultured in serum-free medium *ex vivo*, with or without Ruxo, for 24 hours (RNA sequencing) or 96 hours (immunostaining).

Results:

Non-cultured, (peri-)lesional skin samples displayed significantly lower melanin levels and reduced numbers of SOX10+ immature and GP100+ mature melanocytes compared to non-lesional skin. (Peri-)lesional samples also showed a significant increase of pathogenic CD3+NKG2D+ cells and memory CD3+CD69+CD103- and CD3+CD69+CD103+ T-cells in both the dermis and epidermis, indicating that the chosen (peri-)lesional biopsy sites are well-suited for observing the characteristic pro-inflammatory responses in vitiligo. Cultured, Ruxo-treated (peri-)lesional samples showed higher melanin content in the epidermal basal layer and significantly increased percentages MITF+ mature melanocytes compared to vehicle controls, alongside a significant reduction in the number of MITF+ melanocytes positive for caspase 3, indicating reduced apoptosis. Ruxo treatment did not affect the total number of CD3+ T cells but significantly reduced the quantities of memory CD3+CD69+ T cells and tended to decrease CD3+CD69+CD103+ T cells in the epidermis of (peri-)lesional vitiligo skin. These results demonstrate that (peri-)lesional samples can respond to pharmaceutical treatments *ex vivo*, even within a brief organ culture duration. Additionally, transcriptomic analysis showed decreased expression of genes related to type I interferon signaling and pro-inflammatory chemokines and cytokines in both (peri-)lesional and non-lesional skin samples. In parallel, melanocyte related genes were upregulated in Ruxo-treated samples compared to vehicle controls in both skin types, suggesting that Ruxo treatment alleviates the inflammatory phenotype of vitiligo and promotes skin repigmentation in *ex vivo* settings.

Conclusion:

In conclusion, this organ culture model of (peri-)lesional and non-lesional vitiligo skin demonstrates - in

concordance with clinical observations - that Ruxo enhances skin melanin content and mitigates inflammatory responses. Therefore, our *ex vivo* model provides a valuable resource for understanding vitiligo pathobiology and for preclinical testing of novel therapeutic approaches directly on affected tissue.

Abstract N°: 8662

Management of Lichen planus pigmentosus with isotretinoin

Andrea Lopez Salmeron[1], Angélica Torres Mendoza[1]

[1]FUCAM AC, Dermatology, Mexico City, Mexico

Ashy dermatosis treated with isotretinoin: a case report

Introduction & Objectives:

Pigmented lichen planus (PLP) is an acquired hyperpigmentation disorder primarily affecting patients with Fitzpatrick skin types III–V. (Some authors consider PLP and erythema dyschromicum perstans (ashy dermatosis) to be variants or stages of the same condition due to shared histological features. PLP is more prevalent in India and Latin America, affecting both sexes, with a higher incidence in women.

The etiology remains unknown, though immunological mechanisms have been implicated.

Several predisposing factors have been documented, including intestinal parasites, enteroviruses, HIV seroconversion, hepatitis C, hormonal factors, environmental exposures, ingestion of ammonium nitrite, application of amla oil, henna, mustard oil, contrast media, ethambutol, fluoxetine, and omeprazole

Clinically, PLP begins with brown, bluish-gray, or violaceous macules that may coalesce into patches. The onset is insidious and asymptomatic, and early lesions may exhibit erythematous, elevated, regular borders. The disease may remain stable or progress, with symmetric distribution on the face, neck, chest, and upper extremities, sparing mucosae, palms, soles, and nails. Sun-exposed areas are not necessarily more affected, and pruritus is uncommon. Dermoscopy reveals gray-blue dots over a bluish background, corresponding to melanophages or dermal melanin deposits.

Histological features vary with the lesion stage. Early lesions show basal layer vacuolar degeneration, epidermal atrophy, superficial perivascular lymphocytic infiltrate, pigment incontinence, macrophages, papillary dermal edema, and apoptotic cells. As lesions progress, there is decreased inflammatory infiltrate, perivascular fibrosis or lichenoid infiltration and melanophages.

Materials & Methods:

A 47-year-old female factory worker in the footwear industry presented with a 5-year history of asymptomatic, hyperpigmented gray-brown macules affecting sun-exposed areas of the head, neck, face, and forearms. Her past medical history included breast cancer in remission and hypothyroidism managed with levothyroxine.

Previous treatments included QS laser, hydroquinone, glycolic acid, and photoprotection, with no improvement. Based on clinical features, a diagnosis of pigmented lichen planus (ashy dermatosis) was made. Treatment was initiated with oral isotretinoin 20 mg once daily and strict photoprotection.

Results:

After two months of isotretinoin therapy, the patient showed reduced pigmentation. At the six-month follow-up, she exhibited further improvement with near-complete depigmentation. No new lesions developed, and no progression of existing lesions was observed. The patient tolerated the treatment well and reported no adverse effects.

Conclusion:

In this case, oral isotretinoin at a dose of 20 mg daily proved to be an effective and well-tolerated treatment for a 47-year-old female patient with pigmented lichen planus of five years' evolution. The patient showed progressive improvement, with significant reduction in pigmentation after two months and near-complete depigmentation by six months. No new lesions appeared, there was no progression of preexisting lesions, and no adverse effects were reported during follow-up. This outcome supports the use of isotretinoin as a valuable therapeutic option in patients with refractory cases of pigmented lichen planus.

Abstract N°: 8866

Pirfenidone-induced skin hyperpigmentation in a patient with idiopathic pulmonary fibrosis: a case report

Hugo Larraín[1, 2], Victor Meza Viteri*[2]

[1]Hospital Las Higueras, Department of Dermatology, Talcahuano, Chile
[2]Universidad de los Andes, Department of Dermatology, Santiago, Chile

Introduction & Objectives:

Pirfenidone is an antifibrotic and anti-inflammatory drug that reduces disease progression and improves survival in patients with idiopathic pulmonary fibrosis (IPF), a lethal lung affection with a 5-year survival of 20% (1).

Its mechanism of action involves inhibiting both transforming growth factor beta (TGF- β) and tumor necrosis factor alpha (TNF-α), thereby reducing fibroblast proliferation and collagen synthesis (1).

Pirfenidone-induced cutaneous adverse events (AEs) may present in up to 24-50% of patients, tending to appear in males receiving high doses of the drug (median dose of 1800 mg) and in early phases of treatment (median time to onset 3 to 5.5 months) (2,3).

Among these skin AEs, photosensitivity is the most common, affecting up to 12-23% of patients, and being thought to be predominantly phototoxic, due to the drug's ability to absorb both ultraviolet (UV) B and UVA, which subsequently generates reactive oxygen species and lipid peroxidation (1).

Other less common cutaneous AEs include photoleukomelanoderma, photolichenoid reactions, lupus erythematosus and Stevens-Johnson syndrome (5–9).

Herein, we report a rare case of late pirfenidone-induced skin hyperpigmentation, highlighting the importance of photoprotection in both preventing and treating the potential cutaneous AEs associated with this drug.

Materials & Methods:

Case report.

Results:

An 81-year-old man with a prior medical history of diabetes mellitus, hypertension, coronary artery disease and idiopathic pulmonary fibrosis, for which he had been treated with pirfenidone 600 mg three times daily for the past 10 years, presented with an 8-year history of photodistributed hyperpigmentation, primarily on his face, neck, and dorsum of both hands. Other chronic medications included losartan, atenolol, acetylsalicylic acid, sitagliptin, gemfibrozil and omeprazole.

Cutaneous examination revealed macular hyperpigmentation on the scalp, face, neck and dorsum of both hands, with clear demarcation between sun-exposed and sun-protected areas. No erythema, scaling, blistering, scarring, or hypertrichosis were observed.

Dermoscopy of the hyperpigmented areas showed regularly distributed perifollicular brown dots and globules, and histopathology evidenced epidermal atrophy, extensive dermal elastosis and melanophage foci, without inflammatory infiltrates.

Phototest could not be performed, as it is not available in our center, and complementary laboratory tests ruled

out autoimmune diseases.

A diagnosis of pirfenidone-induced cutaneous hyperpigmentation probably secondary to a previous phototoxic reaction was made, and strict photoprotection was advised.

Conclusion:

Photoprotective measures are essential for both preventing and treating cutaneous AEs caused by pirfenidone, a survival-modifying drug in IPF whose routine withdrawal should be avoided.

Abstract N°: 8876

Gray dermatosis in a child: a rare case and diagnostic challenge

Millena de Freitas Ribeiro[1], Aline Almeida[1], Natália Franco[2], Marcos de Freitas Ribeiro[3], andressa monteiro[1], Isabella Freire Pedrini[2], Hugo M. Faver[1], Heloisa Taboada[1]

[1]Army Central Hospital - Dermatology, Rio de Janeiro
[2]Institute of Dermatology professor Rubem David Azulay, Rio de Janeiro
[3]UFSC, Florianopolis, Brazil

Introduction & Objectives:

Gray dermatosis is considered a rare condition, with few reported cases in the literature. First described in 1957, it remains an enigmatic disease. Its etiology is unknown, classification is controversial, histopathology is nonspecific, and treatment is not yet evidence-based. The condition is chronic and asymptomatic, with slow progression and primarily cosmetic impact. It is clinically characterized by grayish macules of variable intensity, localized or generalized, sparing the scalp, nails, and palmoplantar regions. This report aims to contribute to the dissemination of clinical knowledge about this rare disease.

Materials & Methods:

An 11-year-old male presented with asymptomatic grayish lesions that began eight months earlier in the cervical region, later spreading to the anterior and posterior trunk. The lesions showed no improvement or worsening factors and had remained clinically stable for two months. Previous empirical treatments included topical and systemic corticosteroids and antifungals, without clinical improvement or interruption of lesion development.

Results:

On examination, confluent oval macules were observed, gray-blue in color, measuring 1 to 2 cm in greatest diameter, with poorly defined borders. The lesions were distributed over the cervical area and anterior and posterior trunk. There were no mucosal lesions, no erythematous borders, no scaling, and the Zileri sign was absent. Laboratory workup—including complete blood count, renal and liver function, thyroid panel, urinalysis, stool parasitology, and serologies for hepatitis B, C, and HIV—was unremarkable. Skin biopsy was consistent with gray dermatosis. Treatment with clofazimine (50 mg twice weekly for two months) was initiated but later discontinued due to lack of clinical response and concern over risk-benefit ratio.

Conclusion:

This case highlights a rare and poorly understood dermatosis with no established treatment. It reinforces the importance of including gray dermatosis in the differential diagnosis of acquired asymptomatic gray macules in children. Broader awareness may allow for earlier recognition and avoidance of unnecessary treatments, ultimately improving patient quality of life.

Abstract N°: 8894

Vitiligo in Sézary Syndrome: Coincidence or Cytotoxic Crosstalk? A Case Report and Literature Review

Luiz Roberto Dal Bem Pires Júnior*[1], Fernanda Nomoto Fujii[1], Maira Mitsue Mukai[1], Betina Werner[1]

[1]Hospital de Clínicas, Curitiba, Brazil

Introduction & Objectives:

Sézary Syndrome (SS) is a rare leukemic variant of cutaneous T-cell lymphoma (CTCL), typically presenting with erythroderma, lymphadenopathy, and circulating malignant CD4+ T cells. Hypopigmentation may appear following inflammation, but vitiligo with confirmed melanocyte loss is rarely reported. We present a case of SS associated with extensive vitiligo and explore the literature to understand potential immunological links.

Materials & Methods:

In October 2019, a 40-year-old woman with type 2 diabetes mellitus presented with pruritic erythematous plaques on her feet, rapidly evolving to erythroderma and generalized lymphadenopathy. She later developed alopecia universalis, anonychia, and well-demarcated hypopigmented areas in previously affected skin.

Skin biopsy showed dense dermal CD3+CD4+ infiltrates, occasional epidermotropism, and partial CD5 loss. Fontana-Masson staining revealed complete melanin loss, and Melan-A confirmed absence of melanocytes, consistent with vitiligo.

A diagnosis of Sézary Syndrome was established by peripheral blood immunophenotyping (CD4+CD7−CD26−). Over the next four years, she underwent several unsuccessful treatments: IFN-α + PUVA, methotrexate, CHOP, gemcitabine, and another PUVA cycle.

In October 2023, disease progression prompted hospitalization. PET-CT revealed supra- and infradiaphragmatic lymphadenopathy and subcutaneous lymphoma infiltration in the right leg.

Given refractoriness, she underwent allogeneic hematopoietic stem cell transplantation (HSCT).

Results:

Three months post-HSCT, flow cytometry showed reduced Sézary cell burden and PET-CT demonstrated complete metabolic remission. The patient remains clinically stable, with good disease control.

Reviewing the literature, few cases report vitiligo in SS. A 1983 case described depigmentation after erythroderma. Later, a 62-year-old male developed vitiligo after SS onset. More recent cases in MF/SS reported depigmented lesions following flares.

A 2020 study in the *British Journal of Dermatology* found CD8+ T cells specific to melanocyte antigens (Melan-A, gp100, tyrosinase) infiltrating vitiligo lesions in SS patients. These lymphocytes produced TNF and were restricted by HLA-A*23, suggesting a cytotoxic autoimmune response targeting melanocytes, distinct from melanoma antigens. Our patient's findings were consistent with this pathophysiology.

Conclusion:

This case supports a rare but possible link between SS and vitiligo, with confirmed melanocyte loss and lymphocytic infiltration. It reinforces the concept of autoimmune melanocyte targeting, possibly amplified by

treatments like IFN or PUVA. Recognizing this phenomenon may offer insights into tumor-immune dynamics in CTCL.

Despite multiple systemic therapies, only HSCT achieved remission, reaffirming its role as the sole curative option in advanced SS. Vitiligo in this context may reflect deeper immunologic interactions and deserves further study as both a diagnostic clue and potential immunologic marker.

EA DV CONGRESS
PARIS 17-20 SEPTEMBER 2025
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 8898

Facial Pigmented Lichen Planus in an Adolescent: Case Report of a Rare Presentation

Ícaro Coelho[1], Diogo Bomfim[2], Raul Rossi[3], Guilherme Nascimento*[4]

[1]Universidade Do Estado Do Amazonas, UEA, Manaus
[2]Escola Paulista de Medicina da Universidade Federal de São Paulo (EPM/UNIFESP), São Paulo, Brazil
[3]Santa Casa São José dos Campos, São José dos Campos, Brazil
[4]Centro Universitário Faculdade de Medicina do ABC (FMABC), Santo André, Brazil

Introduction & Objectives: Pigmented lichen planus (PLP) is a rare variant of lichen planus, characterized by brownish or bluish-gray hyperpigmented macules, typically located in sun-exposed areas. It predominantly affects middle-aged adults and is extremely uncommon in children and adolescents. Facial presentation, particularly in the bilateral malar region, is even rarer and scarcely described in the literature. This article aims to report a case of PLP with this rare pattern in an adolescent, contributing to the clinical recognition of this condition in less common age groups.

Materials & Methods: A descriptive clinical case study was conducted. A previously healthy 15-year-old male presented with a single hyperpigmented lesion on the chin, which had been evolving for three years. Within one year, it progressed to involve the entire face, with worsening upon sun exposure and no associated symptoms. Dermatological examination was supplemented by dermoscopy and incisional biopsy. Histopathological analysis was performed by experienced dermatopathologists to confirm the diagnosis.

Results: The lesions were hyperchromic, grayish macules with symmetrical distribution across the face, predominantly in the malar region, mimicking a "rash." The condition worsened with sun exposure, and there was no history of cosmetic or medication use. Dermoscopy revealed a grayish reticulated pigment pattern. Histopathology showed epidermal atrophy, vacuolar degeneration of the basal layer, and melanophages in the papillary dermis, confirming the diagnosis of PLP. Treatment was initiated with strict photoprotection and topical tacrolimus 0.1%, resulting in partial improvement.

Conclusion: Facial pigmented lichen planus is a rare condition in childhood, and its variable clinical presentation can lead to misdiagnosis. This case highlights the importance of considering PLP in the differential diagnosis of facial hyperpigmentation in adolescents, especially when presenting as a malar "rash." Early recognition and histopathological confirmation are essential for effective management, preventing both long-term pigmentary sequelae and potential psychosocial impacts during adolescence.