EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 78

Low dose Tofacitinib & Apremilast combination therapy as a safe and effective modality in recalcitrant alopecia areata

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Introduction & Objectives:

Alopecia areata is common disease of non cicatrising hair loss with frequent relapses and need prolonged treatment in some patients. Oral steroids have been the age old treatment having numerous potential side effects in different age groups. Apremilast is a oral phosphodiasterase 4 inhibitor approved for psoriasis and psoriatic arthritis along with numerous off level indications including Alopecia areata. Tofacitinib is a JAK 1/3 inhibitor approved for RA but has been used to treat Alopecia areata as well. while monotherapy needs higher doses of both drugs and their withdrawal results in frequent relapses and sometimes other immunosuppressants have to be added resulting in compounding of adverse events.

The aim of this study was to determine the safety and efficacy of combination of Apremilast 10/30 mg and Tofacitinib 5mg in treatment of moderate to severe Alopecia areata.

Materials & Methods:

This was a prospective study of 23 cases of moderate to severe Alopecia areata (SALT score > 25% and/ or relapse within one year). Patients were given Apremilast 30mg and Tofacitinib 5mg without any topical application and were followed up to 36 weeks for efficacy and safety.

Results:

The mean(SD) pretreatment hair loss was 92% (11.6) with 4 patients having Alopecia totalis and 1 having Alopecia universalis. Hair regrowth rate (final SALT - initial SALT)/ initial SALT X 100 ranged from 8% to 92% with a mean (SD) of 49% (33) and a median of 52%. The time range for hair regrowth ranged from 4 to 36 weeks. 5 patients complained of moderate dyspepsia and 3 demonstrated abnormal lipid profile. Minor side effects like headache and rash was seen in 3 patients.

Conclusion:

A combination of Apremilast and Tofacitinib is a safe and effective modality in patients of moderate to severe and frequently relapsing cases of Alopecia areata with fewer tolerable side effects

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 88

Efficacy and Tolerability of an oral supplement containing amino acids, iron, selenium and hydrolysed collagen in subjects with hair loss (Androgenetic Alopecia, AGA or FAGA or Telogen effluvium). A Prospective, controlled, assessor-blinded, randomized study.

Massimo Milani[1], Francesca Colombo[1]

[1]Cantabria Labs Difa Cooper , Medical, Caronno Pertusella

Introduction & Objectives:

Oral supplementation with some amino acids, like methionine, taurine and cysteine could be beneficial in subjects with hair loss conditions like androgenic alopecia (AGA/FAGA) or telogen effluvium (TE). Hydrolysed collagen oral supplementation has demonstrated to have beneficial effects on nail and skin health and could improve hair growth. A product in tablet formulation containing hydrolysed fish-origin collagen (300 mg/dose), taurine, cysteine, methionine, iron and selenium, has bee recently available. No controlled data are available so far regarding clinical efficacy of this product as adjuvant to hair loss specific treatments in these clinical conditions. The aim of this study was o evaluate and compare the efficacy and tolerability of an oral supplementation based on hydrolysed collagen and amino acids in subjects with hair loss due to AGA/FAGA or TE in combination with drug treatments in comparison with drugs treatment alone.

Materials & Methods:

In a prospective, 6-month, randomized, assessor-blinded controlled trial sixty-five subjects (mean age 44±16; eighteen men and forty-seven women) were enrolled in the study. Thirty-nine subjects suffered from AGA/FAGA (Hamilton I-III) and 26 from TE. Subjects were randomized to oral supplementation (1 tablet oad) and specify drug treatment decided by the investigator according to the type of hair loss (AGA/FAGA or TE) (Group A; N=38) or to specific drugs treatment only. (Group B; N=27). Main outcome of the trial was the clinical efficacy evaluation using a 7-point Global Assessment Score (GAS) (from +3: Much Improved to -3 Much worsened; with score 0 representing no modification). The GAS score was evaluated by an investigator unaware of the treatment groups at week 6 and at week 12. A secondary outcome was the evaluation of acceptability of the treatment regimen using a 10-point evaluation score.

Results:

All but two (N=63; 96%) completed the 12-week study period. The GAS score at week 6 was 0.5±0.7 in group A and 0.0±0.5 in Group B (P=0.03; Mann-Whitney). At week 12 the GAS score in Group A was statistically significant higher in comparison with Group B (1.6±1.0 vs. 0.6±1.1; P=0.0003; Mann-Whitney test). A higher percentage of Group A subjects achieved a GAS score of ≥2 in comparison with group B (44% vs. 17%; P=0.005; Fisher Exact Test). Tolerability of the oral supplementation product was good of very good. No relevant side effects were reported.

Conclusion:

An oral supplement containing hydrolysed fish-origin collagen, taurine, cysteine, methionine, iron and selenium has demonstrated to improve the clinical efficacy of specific anti-hair loss treatments in subjects with AGA/FAGA or TE.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 153

Clinical study on the effectiveness and tolerability of preformed growth factors vehiculated through ionophoresis on patients with androgenetic alopecia and telogen effluvium.

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Introduction & Objectives:

Androgenetic alopecia is characterized by a progressive miniaturization of hair follicles in a pattern distribution in genetically predisposed individuals. The efficacy of conventional therapies is variable, and therefore, there is a need for adjuvant and newer modalities of treatment in order to give faster and better outcomes.

Materials & Methods:

We performed the treatment on 60 patients with androgenetic alopecia and telogen effluvium associated between June 2018 and June 2019. The total number of sessions was 4 every 3 weeks. Global photography and trichoscopy were collected at every session of therapy. All patients filed out a brief questionnaire of self-assessment.

Results:

Results were very promising, with improvement of hair density and thickening of the hair shaft diameter in most of patients seen with both global photography and trichoscopy. All patients were satisfied of the clinical result and reported a complete reduction in hair loss. No serious adverse side effects were reported.

Conclusion:

The use of growth factors associated with iontophoresis technique is a useful treatment for treating and preventing androgenetic alopecia. In addition, in case of associated telogen effluvium, this technique permit stopping hair shedding earlier, especially when cosmetic procedures do not give enough results with a better satisfaction by patients.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 155

Evaluation of Serum Vitamin D Levels In Non- Scarring Alopecia.

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Introduction & Objectives:

Non-scarring hair loss is a common problem that affects both male and female patients. Since any disturbances in the hair follicle cycle may lead to alopecia, and evidence of the role of vitamin D in alopecia was investigated recently in few studies. The majority of studies revealed decreased serum 25-hydroxyvitamin D levels in patients with different types of non-scarring alopecia, which could suggest its potential role in the pathogenesis of hair loss and thus needed to be supplemented as a therapeutic option for the patients.

Objectives:

To evaluate serum vitamin D levels in non-scarring alopecia.

Materials & Methods:

A retrospective case-control study with 75 cases of non-scarring alopecia and 75 age and sex matches healthy controls was conducted from January 2022-August 2022. Informed consent was obtained and serum vitamin D levels were evaluated in the patients.

Results:

Out of 75 non-scarring alopecia patients(40 male and 35 female), 25 patients were alopecia areata, 25 patients were telogen effluvium and 25 were androgenetic alopecia. The mean serum vitamin D levels were 13.86 ng/ml, 17.64 ng/ml and 21.3 ng/ml in alopecia areata, telogen effluvium and androgenetic alopecia respectively. The mean serum vitamin D levels in healthy controls was 34.78ng/ml.

Conclusion:

There was a significant difference in serum vitamin D levels in cases and controls, suggesting a causative role of vitamin D deficiency in pathogenesis of non-scarring alopecia. Thus, supplementation and further evaluation of vitamin D is required.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 164

A Case of Azathioprine-induced Hair Loss in a Patient with Myasthenia Gravis

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Introduction & Objectives:

Materials & Methods:

Results:

The hair is a complex structure and can serve as a window to different insults, diseases, and stressors on our body. There are various causes of hair loss and depending on the type and where specifically in the hair follicle or the cycle the insult happened, they would have different mechanisms and presentations. We report a case of a 28-year-old female who was treated with azathioprine for myasthenia gravis. The patient developed abrupt and diffuse hair loss of the scalp one month after starting azathioprine. Trichoscopy revealed decrease in hair density, black dots, and numerous short regrowing hairs. Histopathology showed several miniaturized follicles, and a modest increase in catagen and telogen follicles, with CD3 immunostaining demonstrating only a few lymphocytes around two follicular stellae. This was read as a non-scarring alopecia, favoring the diagnosis of anagen effluvium. The hair grew back within one and a half months of stopping the azathioprine, as well as application of minoxidil 2% solution twice daily. This case highlights the complex interactions of medication, immunosuppression, autoimmunity, and the hair cycle equilibrium, as well as anagen effluvium as a rare possible side effect of azathioprine.

Conclusion:

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 176

Evaluation of Topical Sodium Valproate-Loaded Nano Spanlastics Formulation versus Minoxidil 5% in The Treatment of Female Pattern Hair Loss Using Transdermal Delivery :A Comparative study

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Introduction & Objectives:

Valproic acid (VPA), is often used as an anticonvulsant drug that activates the Wnt/β-catenin signaling pathway and blocks GSK3b, a glycogen synthase kinase, and though connected with increasing hair growth and induction of anagen. Currently, only FDA-approved two percent topical minoxidil is available therapy to treat female pattern baldness.

Objective: This randomized controlled clinical trial study aimed to evaluate the effectiveness of topical VPA and 5% topical minoxidil for treating Female pattern hair loss (FPHL)

Materials & Methods:

This study included 81 patients with FPHL who were allocated into three groups randomly (27 treated with topical sodium valproate-loaded nano spanlastics formulation, 27 treated with minoxidil 5% lotion, and 27 treated with saline bottled containers using transdermal delivery using a derma roller for 6 months. The included patients were chosen randomly from the Outpatient Clinic . All patients were subjected to history taking, and general dermatological and scalp examination.

Written consent was obtained from every participant in the study after elucidating all the study details.

Results:

In comparison to the control group, the mean change in the total number of hairs was significantly more in the VPA and minoxidil groups (P = 0.047). Although the majority of adverse events in both groups were moderate and self-limiting, the variations in prevalence rates across the groups were comparable (P = 0.72). Body hypertrichosis was not reported in any participant in valproic acid users in the study

Conclusion:

Topical VPA and 5% minoxidil increased the total hair count of our patients ; therefore, topical VPA is a potential safe therapeutic option for FPHL as it lacks the side effects of topical minoxidil especially hypertrichosis.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 246

Pili Annulati as a novel association with wooly hair in patient with Ectodermal Dysplasia

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Introduction & Objectives:

Ectodermal dysplasia is characterized by malformation of skin, hair, nails, teeth, lacrimal and salivary glands. It manifests as a result of mutations in genes encoding Ectodysplasin A seen in >50% cases. Others genes involved include EDAR, EDARADD, WNT10A. Affected individuals have sparse and malformed, brittle and lightly coloured hair. Wooly hair refer to the closely arranged curled uncombable hair. It usually presents at birth, However, late onset has also been reported. Our case shows pili annulati as an abnormality associated with wooly hair in a patient of ectodermal dysplasia which has never been reported previously.

Materials & Methods:

A 7-year-old female born to a non-consanguineous marriage presented with easily breakable hair since birth. On examination, patient had hypodontia, hypotrichosis and distinct facial features including large everted lip and saddle nose deformity. Patient also had dry pale skin and brittle nails with abnormal dermatoglyphics on palms and soles. Patient had curled hypopigmented uncombable hair present since birth. Patient was clinically diagnosed as a case of Ectodermal dysplasia with wooly hair. On trichogram, the patient had alternating dark and light bands on the entire hair (Pili Annulati).

Results:

Wooly hair on microscopy are characterized by elliptical cross-section, axial twisting and trichorrhexis nodosa. It is associated with various syndromes including Naxos disease, Carvajal syndrome, Noonan syndrome and cranio-facial-cutaneous syndrome. It has been reported in association with ulerythema ophryogens, keratosis pilaris, icthyosis, osteoma cutis, nail dystrophy and intractable diarrhoea. It has never been reported in association with ectodermal dysplasia.

Conclusion:

Our case shows novel association of wooly hair with Ectodermal dysplasia where microscopy of the hair showed shaft abnormalities of hair as Pili Annulati.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 279

A meta-analysis of transcriptomes reveals differences and similarities between primary lymphocytic scarring alopecias

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Introduction & Objectives:

Scarring alopecias represent a group of inflammatory diseases that lead to irreversible hair loss due to the destruction and fibrosis of hair follicles. Currently, there are no specific treatments for these diseases, so a better knowledge of their shared and unique pathways would help to design more precise therapeutic strategies. We aimed to determine whether there is a common transcriptome for this type of alopecia as well as the molecular signatures that uniquely characterize it.

Materials & Methods:

A meta-analytic model was used to integrate gene expression profiles from four independent data sets hosted on Gene Expression Omnibus (GEO) (GSE59131, GSE58934, GSE113052, GSE11905) involving 29 patients with scarring alopecias [frontal alopecia fibrosing (FFA), n=10; lichen planus pilaris (LPP), n=11; central centrifugal alopecia (CCCA), n= 8; Brocq pseudopelada (PsPB), n=4)] and 29 controls, both internal and healthy. A meta-analysis using a random effects model and a pathway enrichment analysis were performed with imaGEO and GeneCodis or GSEA, respectively.

Results:

No gene was differentially expressed in all types of alopecia (log2FCH >2.5 or < -2.5 and FDR < 0.05). However, there were common characteristics and differentiators in the different routes analyzed. Changes related to extracellular matrix homeostasis were observed in all alopecias, with increased expression of collagen (COL14A1 and COL3A1 in FFA; COL16A1 in PsPB) and decreased expression of proteins related to extracellular matrix degradation (ITGB1 in FFA and CCCA; SERPINE1 and MMP13 in FFA and LPP; SPP1 in LPP and CCCA and KLKB1 in FFA and PsPB). The inflammatory component was greater in FFA compared to the rest of the alopecias, with increased expression of genes related to interferon (EGR1, CIITA, HLA-DPA1), Th1 (DLL4, ISG20, ICAM1), Th2 (IL4, MAF, NOTCH1), and decreased Th17 (IL17A, TGFBR1, SMAD3, RORA) and macrophage activation (NOS1, PLCG2). In CCCA, a greater representation of cholesterol metabolism (CYP27A1, CYP2C9, LPCAT1, APOA4, NPC1) was observed, and in FFA of fatty acid synthesis (CYP19A1, CYP1A2, TM6SF2, CYP46A1, TM6SF2), insulin signals (GAB1, IGF1, KRAS, PIK3C3, PTPN11) and gluconeogenesis (ADPGK, ALDOB, PGK1). Of note, CCCA (MSAPK8, MLXIP) and LPP (GSK3B) were associated with insulin resistance. Finally, genes of the Hedgehog signaling pathway were downregulated in CCCA (BCL2, ARRB1) and upregulated in FFA (GAS1, GLI3, SMURF1). Epigenetic changes were found in CCCA (EP300, KANSL1, NR1H4), FFA (ATF7IP, CREBBP, HCFC1, KDM5D), or both (NCOR1), but not in LPP or PsPB.

Conclusion:

Our study shows for the first time the molecular heterogeneity of the most representative types of primary

lymphocytic scarring alopecia based on a meta-analysis of gene expression studies. These differences should be taken into account when designing future drug trials for the treatment of these diseases.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 347

Efficacy of the association of topical minoxidil and topical finasteride compared to monotherapies in men with androgenetic alopecia: a prospective, randomized, controlled, assessor blinded, 3-arm, pilot trial

Francesca Colombo*[1], Alfredo Rossi[2], Gemma Caro[2], Massimo Milani[1]

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Introduction & Objectives:

Topical minoxidil (MNX) 2-5% and oral finasteride (F) 1 mg/die are the only two pharmacological treatments authorized for androgenetic alopecia (AGA). Recently, a 2.2 mg/mL topical formulation of F was developed with the aim to minimize the systemic adverse effects associated with the oral formula. MNX and F act through different mechanisms, therefore, their association could improve clinical efficacy. To evaluate the efficacy of the association of 5% MNX and topical F, compared to the respective monotherapies, a 6-month, prospective, randomized, assessor-blinded trial was conducted.

Materials & Methods:

Forty-two male, mean age 24±3 years, with AGA (I-VII of Norwood-Hamilton Grading Scale), treatment naïve or free from any therapy for at least 6 months, were enrolled and randomly assigned to three arms treatment groups (2:1:1): group A (n=19, the subjects applied 5% MNX in the morning and F spray in the evening), group B (n=12, the subjects applied F spray in the evening), group C (n=11, the subjects applied 5% MNX twice daily). The efficacy of treatments was evaluated at baseline and after 3 and 6 months using global photography score (GPS; from -3 to +3) and by a trichoscopic evaluation and assessed by an investigator unaware of treatment allocation. At baseline and after treatment the serum levels of follicle-stimulating hormone (FSH), luteinizing hormone (LH), dehydroepiandrosterone sulfate (DHEA-S) and testosterone were also evaluated.

Results:

All treatments determined an increase in hair density compared to baseline. However, this improvement was significant only for the group A (MNX+F), both at three (+56 density/cm2, $p<0.05$) and six (+81 density/cm2, $p<0.001$) months. The mean change from baseline in hair density was higher for group A compared to other groups and statistically different compared to group B (F) ($p<0.01$), both after 3 and 6 months. The group A showed a global photographic assessment score (GPS) significantly higher compared to group B ($p<0.001$) and group C ($p<0.05$) both at three and six months (2±0.7 vs. 0.6±0.8 and 1.3±0.6; respectively). A significant greater percentage of subjects in group A achieved a GPS score of≥2 in comparison with Group B and C both after 3 and 6 months (79% vs. 8% and 41%, respectively). No significant differences were observed in mean hair diameter and hormonal levels between the three groups. A good tolerability was observed in all treated groups.

Conclusion:

The association of 5% MNX lotion and F in spray formulation in patients with AGA showed a significative higher clinical and instrumental efficacy compared to the monotherapies, with a comparable tolerability and safety profile.

EA CONGRESS DV
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 357

Patient Reported Outcomes for Scalp, Eyebrow and Eyelash hair loss in Patients with Severe Alopecia Areata Treated with Baricitinib: 104 week Results from Two Phase 3 Clinical Trials

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Introduction & Objectives:

The oral Janus kinase (JAK)1/2 inhibitor baricitinib has shown efficacy versus placebo in scalp, eyebrow (EB), and eyelash (EL) hair regrowth for adults with severe alopecia areata (AA) in two Phase 3 clinical trials. Hair loss is associated with poor quality of life in patients with AA, and patient-reported outcomes (PROs) are important in assessing response to treatment. Here we report improvements in scalp hair, EB, and EL as reported by patients with severe AA treated with baricitinib for 104 weeks.

Materials & Methods:

Data were pooled from patients enrolled in BRAVE-AA1 and BRAVE-AA2, two randomized, placebo-controlled Phase 3 trials. Patients with baseline severe AA (i.e., a Severity of Alopecia Tool (SALT) score of ≥50), were randomized in a 3:2:2 ratio to receive once daily baricitinib 4mg, 2mg or placebo, respectively. The Scalp Hair Assessment PROTM (a 5-point measure ranging from 0 to 4) and the PRO measure for EBTM and ELTM (4-point measures ranging from 0 to 3) were used to assess treatment benefits in these analyses. A higher score indicates greater severity for all PRO measures. Scalp, EB, and EL responses, defined as a score of 0 or 1 with a ≥2-point improvement from baseline for each respective PRO, are reported at Weeks 52, 76, and 104 for patient responders (those who achieved SALT score ≤20 at Week 52) who were eligible to remain on either 2mg or 4mg baricitinib through Week 104. Response rates for the different PROs were assessed among patients reporting baseline scores 2 or 3 for EB and EL and 3 or 4 for scalp. Data after permanent drug discontinuation were censored and modified-last observation carried forward (mLOCF) was used for censored or missing data imputation.

Results:

There were, respectively, 65 and 129 patients from baricitinib 2mg and 4mg groups who were responders (SALT score ≤20) at Week 52. Respectively, 89% and 96% had reported a scalp hair loss score 3/4, 60% and 63% reported an EB score 2/3, and 42% and 51% reported an EL score 2/3 at baseline. 40% and 47% of responders, respectively, reported both EB and EL scores of 2/3 at baseline.

From Weeks 52 to 104, the proportion of patients with a reported scalp hair response was between 72-81% for 2mg-treated patients whereas those values were 86-90% for 4mg-treated patients, Figure 1A.

During the same period, the proportion of patients with a reported EB response increased from 56% to 67% for 2mg-treated patients and from 64% to 75% for 4mg-treated patients, Figure 1B. The proportion of patients with a EL response also increased from 52% to 70%, and 56% to 74% for 2mg and 4mg-treatment, respectively, Figure 1C. Among patients with both EB and EL scores 2/3 at baseline, the proportions of patients with a reported

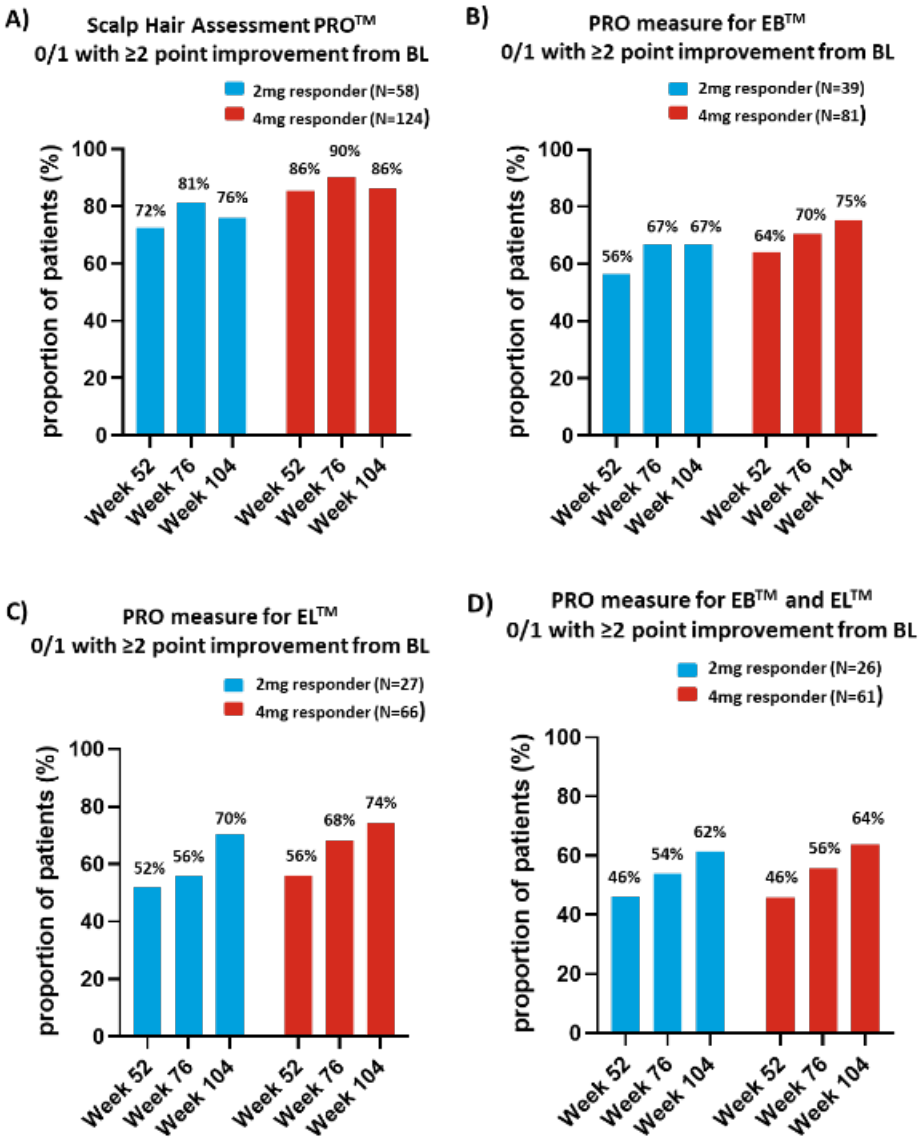
concurrent EB and EL response increased from 46% to approximately 64% for patients on either dose, Figure 1D.

At baseline, only 23% and 40% of baricitinib 2mg Week 52 responders and 23% and 34% of baricitinib 4mg Week 52 responders reported having full EB (PRO EB = 0; Figure 2A) or full EL (PRO EL = 0; Figure 2B). By Week 104, these percentages had increased to 57% and 60% with baricitinib 2mg and 62% and 66% with baricitinib 4mg.

Conclusion:

PRO data provide further evidence of benefit in baricitinib treatment for patients with severe AA. The cumulative improvements of EB and EL support previous observations that long treatment periods may be needed to achieve full benefit of these hair-bearing sites.

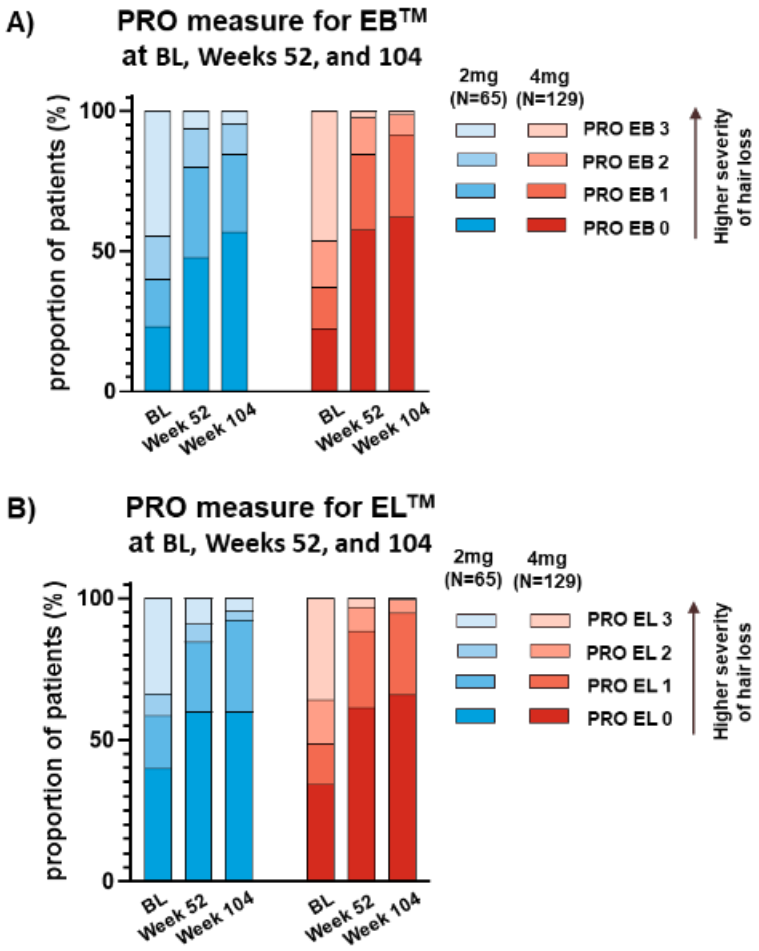
Figure 1. Improvements in PRO scalp, eyebrow (EB), and eyelash (EL) from Weeks 52 to 104 among SALT responders (score ≤20) at Week 52 with baseline PRO scores 2 or 3 for EB and EL and 3 or 4 for scalp.



Scores are reported using a 5-point measure for scalp (ranging from 0 to 4) and a 4-point measure for EB and EL (ranging from 0 to 3) with higher scores indicating a greater severity of hair loss.

BL=baseline; EB=eyebrow; EL=eyelash; PRO=patient-reported outcomes

Figure 2. A) EB and B) EL scores at baseline, Week 52, and Week 104 for all SALT responders (score ≤20) at Week 52.



Scores are reported using a 4-point measure for EB and EL (ranging from 0 to 3) with higher scores indicating a greater severity of hair loss.

BL=baseline; EB=eyebrow; EL=eyelash; PRO=patient-reported outcomes

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 360

Baricitinib demonstrates rapid action within just two months of treatment in severe and unresponsive alopecia areata

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Introduction & Objectives: Alopecia areata (AA) is a form of nonscarring alopecia and is the most common immune mediated cause of hair loss worldwide. Can affect any hair bearing region and can manifest in various patterns ranging from patchy diffuse alopecia to alopecia totalis or universalis. Numerous therapeutic schedules available as off label options, have demonstrated only limited results. However on 2022 baricitinib, a selective JAK1 and JAK 2 inhibitor was approved as an oral administered systemic therapy for severe AA5. Based on this we used it in a young lady suffering from severe disease, nonresponding to previous tried treatment modalities, with excellent and quick respond in less than 3 months therapy.

Materials & Methods: A 21 years old Caucasian woman presented with 15 years of severe AA (severity of alopecia score SALT 88) and immense psychological burden. Patient had positive family history of the disease and all traditional treatments (topical and oral corticosteroids, immunotherapy) were proven to be insufficient making the impact in quality of life even more negative. After laboratory examinations within normal limits, baricitinib was administered as monotherapy in 4mg daily dosage.

Results: Severe AA improved rapidly after the first month and was resulted in total hair restoration just after the second month under baricitinib treatment. SALT score impressively reduced to 30 and 10 respectively. Six months later, patient is keeping up the same treatment with not any sign of relapse. She is continually, under two months follow-up.

Conclusion: Baricitinib one of the newer first generation JAK inhibitors, selectively inhibits JAK1,2, and less extend JAK3, interrupts cytokine signalling implicated in the pathogenesis of a AA . It was firstly published by Jabbarie et al on 2015 and showed adequate response after 9 months treatment. Later in 2019 Olamiju et al reported almost complete hair regrowth after 8 months therapy. A recent report by Wang Y, et al in 2022 recorded response to baricitinib therapy at 5 months-the shortest available report to date. As we elucidate by reviewing the above available references we reasonably suggested that we could anticipate even faster response to baricitinib for severe alopecia areata cases. In our patient almost total hair restore achieved in less than three months of treatment, strongly advocates the addition of baricitinib in dermatologic armament as a safe, adequate and fast AA remedy.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 370

Balance disruption of pro- and anti-inflammatory skin microbiota underlies alopecia areata severity

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Introduction & Objectives: The skin microbiome is a complex microbiological system with multiple interactions that can lead to both local and distant changes in homeostasis. **Objectives**: To determine the relationship between skin microbiota composition and disease severity in patients with alopecia areata (AA)**

Materials & Methods: We interrogated the 16S rRNA gene on 20 naïve patients with severe (n=8) or mild (n=12) AA and healthy controls (n=4) using Swab samples collected from lesional scalp areas and analyzed on an Ion Torrent S5 sequencer. Disease status was classified as mild/moderate (<50% involvement and < 1 yr duration) and severe (=> 1 yr, ≥50% SALT, AT, or AU). Linear discriminant analysis (LDA) effect size (LEfSe) scores were used to identify the taxa that best discriminated between groups

Results: Alpha diversity did not differ among samples. However, beta-diversity (Jaccard) was different in mild ($p = 0.002$) and severe AA ($p = 0.005$) vs controls. Our results indicated that taxa of the healthy scalp were dominated by four bacterial phyla: Actinobacteriota (56.1 %), Firmicutes (27.2 %), Bacteroidota (8.5 %), and Proteobacteria (7 %). representing a total of 18 different groups. There were apparent shifts in dominance associated with AA severity from Actinobacteriota (56.1 % control; 48.4% mild; 37.9 % severe) to Proteobacteria (7% control; 6.1% mild; 17.4 % severe) groups. Bacteria species that showed LDA > 2 between control and AA were Brevibacillus, Anaeroplasma, Jeotgalicoccus, Asteroleplasma, Paraprevotella, Helicobacter, Turicibacter, Ruminococcaceae, Victivallis, Thermicanus (all $p < 0.05$)

Conclusion: The amount of scalp microbiota does not vary between healthy subjects and patients with AA. However, there are changes in relative bacteria population with a positive correlation between pro-inflammatory (Proteobacteria)/antiinflammatory (Actinobacteriota) bacteria ratio and disease severity. Whether these changes are either the cause or consequence of AA needs to be explored further.

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Abstract N°: 403

Assessment of efficacy and safety of Sodium Valproate -loaded nanospanlastics in patients with patchy Alopecia Areata in comparison to conventional therapy with topical steroids: a randomized controlled blinded study

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Introduction & Objectives:

Alopecia areata (AA) is a common T-cell-mediated autoimmune disorder with significant psychosocial burden. In spite of a myriad of available therapeutic modalities, none is of high level of evidence, creating an immense need for the evaluation of more efficacious treatments, that target alternative pathways.

Sodium valproate has recently been assessed and proven effective in the treatment of androgenetic alopecia, which is postulated to act through upregulation of the Wnt/beta-catenin signaling pathway in simulation to its effect on the neuronal cells. In alopecia areata, the Wnt/beta-catenin signaling pathway was found to be suppressed. Thus, sodium valproate is worth further evaluation to unravel its possible beneficial effects in alopecia areata

The aim of the study is to evaluate the efficacy and safety of topical sodium valproate (SV)-loaded nanospanlastics, in comparison to topical corticosteroids, the currently available gold standard topical treatment for patchy AA.

Materials & Methods

A total of 66 patients with patchy AA were randomly assigned to receive either topical SV or topical mometasone furoate lotion, a highly effective potent corticosteroid with a low side effects profile. Treatment was applied twice daily to all patches except a control patch, which was left untreated. Clinical, trichoscopic and biochemical assessment of beta-catenin levels and Axin-2 gene expression were carried out at baseline and after 3 months.

Results:

Both therapeutic modalities were found comparable, were around half of the patients in both groups achieved 50% improvement in their baseline Severity of Alopecia Tool (SALT) and/or Patient Global Assessment of Improvement (PGAi). Potential efficacy was further highlighted by significant improvement in the representative patch; the largest treated patch, to the control patch; the smallest untreated patch in both groups. Both beta-catenin levels and Axin-2 gene expression were reduced after treatment, pointing to the dominating uncontrolled inflammatory milieu, resulting in upstream inhibition of beta catenin production, interfering with optimized action of SV. Baseline beta catenin was found to significantly negatively correlate with improvement in the representative patch in patients with baseline level above 0.42 ng/ml.

Conclusion:

Both topical SV and steroids are of comparable modest efficacy. Thus, further evaluation of SV is due in combination with intralesional steroids and other anti-inflammatory treatment modalities, together with developing individualized approaches based on baseline beta catenin level.

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Abstract N°: 495

Trichoteiromania in a patient with focal neurodermatitis of the scalp

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Introduction & Objectives: Trichoteiromania is a rare variant of self-destructive hair damage (P Freyschmidt-Pauletal, 2001). Despite the few cases of trichoteiromania, it can occur more often and be diagnosed as other variants of hair damage. The disease key points are information about regular scalp rubbing, the formation of one or more foci of breakage hair with lichenification, hair breakage of 1-20 mm from the skin with longitudinal splitting distal ends. It is associated with common dermatoses such as lichen simplex chronicus of the scalp or systemic anomalies such as Claude Bernard Horner's syndrome.

Materials & Methods: From 2018 to 2022, we observed 5 patients with trichoteiromania, in 3 of them it associated with lichen simples chronicus. We represent the case of trichoteiromania and lichen simples chronicus**.**

Results: Patient G., aged 78, complained of thickening of the scalp and moderate itching in the occipital region for 6 years. The patient associated the appearance of itching and induration of the occipital area with a violation of calcium absorption. According to her opinion, "the element accumulated in large quantities of the occipital area" to remove it, she had to rub the occipital area for a long time and regularly. Topical treatment with ketoconazole, corticosteroids was without improvement.

On occipital with the transition to the neck found areas of infiltration and lichenification of a saturated red color with a bluish tinge, fuzzy borders, excoriations with hemorrhagic crusts, and scaling. The hairs were broken off at a distance of up to 7 mm from the skin, their ends were split longitudinally into 2-4 parts of different diameters and created white tips.

Trichoscopy revealed brush-like hair from 2 to 7 mm with distal longitudinal uneven splitting of the rods up to 5 parts, hair density was normal, there were no black or yellow dots. The underlying skin with multiple comma-shaped vessels, thin arborizing and punctate vessels, and a few hemorrhagic crusts were determined in places.

Pathogenic fungi were not detected by microscopic examination of the skin and hair.

Histological examination: hyperkeratosis, slight granulosis, hyperplasia of the spinous layer of an uneven nature, fragmentation in the underlying dermis, basophilia of collagen fibers. As well rendered an epidermal defect in the projection of the hair follicle mouth with a crust of dried fibrin and cellular detritus.

The patient was advised to consult a psychiatrist. A pH-neutral scalp cleanse, an epithelizing agent, and topical corticosteroids were prescribed.

Discussion

Trichoteiromania is a rare variant of hair damage that must be differentiated from of alopecia and other self-destructive hair damage. The key points for diagnosis are anamnes and the trichoscopic picture. Due to the few descriptions of trichoteiromania, there is no specific standard for the treatment. However, in addition to symptomatic therapy, the importance of psychiatric care is indicated.

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Abstract N°: 513

Are the Severity and Subtype of Androgenetic Alopecia Correlated with the Severity of Co-existing Acne Vulgaris: A Multicenter Study

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Introduction & Objectives:

Androgens are known play a role in the pathogenesis of both acne vulgaris and androgenetic alopecia (AGA). There are three known subtypes of AGA in females which are Hamilton, Ludwig and Olsen; and the Hamilton subtype is the main subtype in males. A previous study by Özkoca et al. (1) has shown that the co-existence of acne vulgaris was more common in less severe female AGA patients. Furthermore, acne vulgaris was more common in female AGA patients with the Hamilton and Ludwig subtypes. The aim of this study is to further investigate the relationship of the severity of acne vulgaris lesions to the subtype of AGA; and to validate the relationship between severities of acne vulgaris and AGA.

Materials & Methods:

Male and female patients with co-existing acne vulgaris and AGA, who accepted to participate were incorporated in this study. Five centers with a dermatology outpatient clinic were involved in the data collection. The age, gender, severity of acne lesions, subtype of AGA and severity of AGA were noted to the files of each patient. The severity of acne lesions was graded according to the Global Evaluation of Acne Scale: grades 1 and 2 were grouped as mild; 3 and 4 as severe. AGA was graded according to the Hamilton and Olsen Scales. In order to overcome discrepancies, the Hamilton stages were grouped into three for matching the Olsen Stages. Female patients with a known hormonal disturbance were excluded from this study. SPSS version 21 was used for the statistical analyses; Mann- Whitney U and Chi squared tests were applied.

Results:

A total of 101 patients were included. Twelve (11.9%) were male and 89 (88.1%) were female. The mean age of the patients was 23.24 years. Sixty-two (61.4%) of the patients had mild acne whereas 39 (38.6%) had severe acne. Fifty-eight (57.4%) had AGA of Hamilton subtype and 43 (42.6%) had Ludwig subtype; 67 (66.3%) were stage 1, 23 (22.8%) were stage 2 and 11 (10.9%) were stage 3. The severity of acne vulgaris was found to be independent of the severity and the subtype of AGA; p-values 0.623 and 0.870 respectively.

Conclusion:

Although it has been previously shown that acne was more common in patients with less severe AGA; a relationship between the severity of AGA and severity of acne was not found. Furthermore, acne was previously shown to be more common in Hamilton and Ludwig subtypes; however, there is no relationship between acne severity and AGA subtype. Acne severity is independent of the subtype and stage of the co-existing AGA.

1- Özkoca D, Aşkın Ö, Engin B. The comparison of demographics and comorbidities of female pattern hair loss according to the clinical subtype and stage. J Am Acad Dermatol. 2022 Oct;87(4):779-783. doi:

10.1016/j.jaad.2021.11.027. Epub 2021 Nov 24. PMID: 34838685.

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Abstract N°: 517

Resistant Lichen Planopilaris: expect the unexpected

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Introduction & Objectives:

Lichen planopilaris (LPP) is a rare, chronic inflammatory scarring alopecia, primarily affecting women aged 40-60 years. It classically presents as pruritic, painful polygonal patches of alopecia with follicular hyperkeratosis and perifollicular erythema. Although, predominantly affecting the scalp, this case highlights extrascalp involvement which is scarce. The pathogenesis of LPP is not yet well characterised and the progression of the disease is unpredictable. Treatment is difficult because of significant relapse-rates along with the psychological impact. Treatment available presently does not result in hair regrowth, however, systemic treatment should be considered at the early stages.

Materials & Methods:

Here, we aim to bring to light a 66-year-old female with a 21 year history of biopsy-proven LPP and her agonising course of treatments, seeking multiple dermatologists' opinions. Initial presentation was of multiple discrete brown comedone-like follicular papules on her trunk. Based on clinical features, dermoscopic and histopathological findings, LPP was diagnosed. Dermovate ointment was given to apply on the lesions, after 6 months follow-up the lesions resolved. Subsequently, she represented 18 months later with diffuse hair loss involving the entire scalp. Unusually, there was no related itching, pain or sensitivity, leading to delayed diagnosis. Dermoscopy showed follicular miniaturisation, varying hair shaft thickness and telangiectasias. Punch biopsy was obtained and revealed perivascular lymphocytic inflammation, follicular hyperkeratosis and mid isthmic fibroplasia, indicating LPP.

Results:

Initially the patient was prescribed numerous regimes including: topical corticosteroids, topical Tacrolimus, Minoxidil, corticosteroid injections and Prednisolone, without improvement. Hydroxychloroqiune was then started, after a 6 month trial there was continuing hair thinning, scaling and erythema. At which point the patient was initiated on a regime of Mycophenalite Mofetil (MMF), Oxytetracycline and Dermovate scalp application, showing clinical improvement. After 15 years the dose of MMF was tapered and then stopped, however, 6 months later hair loss reoccurred. A course of oral prednisolone and the earlier regime with MMF was reintroduced, which stabilised the activity of her LPP.

Conclusion:

To conclude, it is important to appreciate the broad clinical spectrum of LLP, occasionally affecting hair follicles on areas besides scalp and not always presenting with classical symptoms of pruritis and trichodynia. Due to LLP's recalcitrant nature and difficulty diagnosing, it is important to initiate treatment promptly with consideration of systemic agents early to prevent scarring. Poor understanding of this disease and lack of standardised treatments necessitates further study of this condition.

EA DV CONGRESS
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Abstract N°: 531

Micrografting Progenitor Cells for Androgenetic Alopecia - A novel therapeutic experience of demographically versatile patients using Rigenera System.

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Micrografting Progenitor Cells for Androgenetic Alopecia - A novel therapeutic experience of demographically versatile patients using Rigenera System

Introduction & Objectives:

Androgenetic alopecia is a disorder of multifactorial origin and several treatment modalities have been developed and used while many continue to be still under research. Tissue engineering in hair regeneration strives to provide novel, non-invasive hair regrowth therapies and involves the use of biological mediators providing a new tool for regenerative medicine. The choice of the biological sources used, such as stem cells and grafts, is crucial. Autologous Micrografting is based on the concept that by increasing the superficial area of a tissue graft by cutting the graft into smaller "micrografts," it is possible to cover a treatment area much larger than the donor site. We hereby present our experience of treating 20 patients over a period of 18 months with this technique and discuss their outcomes based on differences in gender , age, ethnicity etc.

Materials & Methods:

The procedures were carried out at a single-centre in which 20 patients were enrolled. Patients were evaluated through trichoscopic examination and only those with confirmed early to moderate stage androgenetic alopecia ((Norwood–Hamilton 1–3 and Ludwig 1–2) were included. Patients with pre-existing inflammatory scalp condition were excluded.

Autologous micrograft suspension was prepared using the Rigenera system and protocol and injected on the scalp using the intradermal injecting technique without papula. All patients were followed up at 1,4 and 12 weeks. Few patients were analysed at 6 and 9 months as well. After applying treatment, an increase in the mean hair thickness and density, reduced hair loss, improved scalp condition and the level of satisfaction described by patients were noted.

Results:

After 12 weeks, patients had a rise in hair count and density in the targeted region of micrograft suspension injections. Several patients also demonstrated an improvement in hair thickness and reduction in hair loss. No adverse effects were reported during or after the treatment.

Conclusion:

Autologous micrografting technique using the Rigenera system and protocol is an effective tool for managing patients with early to moderate stages of Androgenetic Alopecia. The treatment was effective and well tolerated.

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Abstract N°: 600

A retrospective study of Frontal Fibrosing Alopecia from North-East India

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Introduction & Objectives: Frontal fibrosing alopecia (FFA) is an important cause of scarring alopecia seen mostly in post-menopausal women but sometimes in premenopausal women and men. Although considered as a variant of lichen planopilaris due to its histopathological characteristics, it has distinct clinical features and associations which make it a unique entity. We hereby report a series of patients of FFA from north east India.

Objective: To analyse the clinical and histopathological characteristics of FFA.

Materials and Method: We retrospectively analysed clinical records and histopathological features of FFA cases diagnosed in Dermatology outpatient department from April 2013 to February 2023

Results: A total of 21 patients, who were diagnosed as FFA from April 2013 to February 2023, were analysed. Out of these, 19 patients were female with Male/Female ratio of 9.5:1. The mean age of study population was 48.33 years. Majority of the patients were from post-menopausal age group (15/19 females, 78.94%). Lichen planus pigmentosus (6, 28.57%) was the most commonly associated disease followed by androgenetic alopecia and lichen planopilaris (2 each, 9.52%). The main histological features noted were perifollicular lymphocytic infiltrate in 18 (85.71%) followed by hydropic degeneration of basal follicular keratinocytes in 15 (71.42%) and melanin incontinence in 14 (66.66%) patients.

Conclusion: Our study is the first study from northeast India focusing on the clinical presentation and histopathological characteristics of FFA. Furthermore, with respect to the recent development in FFA, our study attempted to determine the clinical significance of the proposed criteria for diagnosis of FFA patients by Tolkachjov et al (2018) viz a viz International FFA cooperative group criteria (2021).

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Abstract N°: 604

Alopecia totalis: challenging cases from the clinic

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Introduction & Objectives:

Alopecia totalis/ universalis is the most serious and stressing type of alopecia areata, with loss of hair from total scalp and sometimes it affects eyebrows, eye lashes and total body hair. It has a marked effect on patient's quality of life. Patients usually suffer from anxiety, social isolation , depression, and bullying. Our study aimed to evaluate two modalities of treatment oral mini pulse steroids versus JAK inhibitors in management of cases with alopecia totalis.

Materials & Methods:

Thirty cases were presented in my clinic in Assuit, Upper Egypt with alopecia totalis/universalis. Patient evaluation was done by history, physical examination, dermoscopy and quality of life using DLQI assessment. Twenty patients received systemic steroids as initial therapy to stimulate hair regrowth, monthly intramuscular triamcinolone injections, followed by pulsatile oral prednisone every week (OMP). Other group of patients received systemic JAK inhibitor (baricitinib). Follow up for patients was carried out every month by dermoscopy and clinical examination for at least 3-6 months after therapy started.

Results:

Age of participants ranged from 4-35years, dermoscopic evaluation at presentation revealed empty hair follicles, or fine vellous hair. Hair started to grow 30-40 days after starting the therapy with OMP, but in JAK inhibitors more than 60 days for hair to appear. Recurrence was reported more with OMP group especially after reduction of dose.

Conclusion:

Conclusion: oral mini pulse therapy was superior to JAK inhibitors in stimulation of hair growth, many patients received OMP have a recurrence of hair loss after therapy discontinuation plus side effects of use of corticosteroids. Side effects of oral JAK were minimal, with less incidence of relapse.

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Abstract N°: 632

A randomized, double-blind, placebo controlled, half-head study to evaluate the effects of platelet-rich plasma on androgenetic alopecia.

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Introduction & Objectives: Androgenetic alopecia (AGA) is the most common cause of non scarring hair loss in men. The main objective of the study was to evaluate the clinical efficacy of autologous platelet rich plasma injections in the scalp of patients with male androgenetic alopecia and to determine whether PRP could be used as adjuvant treatment of androgenetic alopecia with topical minoxidil.

Materials and method: We enrolled 27 male patients with AGA in the study. The patients were randomized to receive a half head treatment with PRP and the other half head with normal saline (placebo). Minoxidil 5% solution was applied twice daily throughout the study period. Hair counts were done at first visit and one month after the 3rd injection on 1cm2 areas (tattooed) on both right and left sides of the parietal scalp in all the patients. Results were statistically analysed using SPSS version 10.

Results: In PRP treated areas, hair density increased from 106.48+29.93 (baseline) to 119.29+24.61 (4 months) (P=0.001). In normal saline treated areas, hair density increased from 104.85+27.29 (baseline) to 120.56+26.86 (4 months), (P<0.001). However, p value for normal saline vs PRP was not significant (p=0.964).

Conclusion: Our study highlights the benefits of PRP therapy as an adjuvant treatment for androgenetic alopecia.

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Abstract N°: 690

Efficacy and Safety of Different Doses of Topical KX-826 on Female Pattern Hair Loss: A Multiple-centers, Placebo-controlled, Double-blinded, Randomized Phase II Study

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KX826-CN-1004 Abstract for EADV Congress in Berlin 2023

Introduction & Objectives:

Female pattern hair loss (FPHL) is a common cause of non-scarring alopecia in women. Androgen and its receptors are considered contributory to cause of FPHL. KX-826 (Pyrilutamide) is a novel investigational androgen receptor (AR) antagonist, developed to locally block the androgen-mediated signal by competing with the biding of the androgen to AR instead of reducing androgen level systemically. Whether a topical non-steroidal anti-androgen (NSAA) like KX-826 can treat this with acceptable side effect profile is yet to be confirmed.

Materials & Methods:

This was a phase II, randomized, double-blind, placebo-controlled, multicenter clinical study conducted in China only. 160 women aged at least 18 years with FPHL (grade D3 to D6 on the Savin Density Scale) were randomly assigned in 1:1:1:1:1 ratio to different dosage of drugs or matched placebo groups, once daily (QD) or twice daily (BID) (Subject CONSORT is listed with Figure 1). Subjects applied 1ml (7 sprays) of assigned solution for continuing 24 weeks.

The primary efficacy endpoint was the mean change from baseline in target area non-vellus hair count (TAHC) at week 24 in comparison to that treated with placebo. The secondary efficacy endpoints were the change from baseline in hair growth assessment (HGA) at week 6, 12, 18, 24, which included subject self-assessment and investigator-assessment, change from baseline in TAHC at week 6, 12, 18, and change from baseline in non-vellus hair diameter (width) in the target area (TAHW) at week 6, 12, 18, 24.

Results:

From November 2021 to November 2022, 16 sites from China contributed 160 subjects, subjects' demography information is listed in Table 1.

After 24 weeks treatment, 0.5% concentration QD KX-826 exhibited statistically significant increase in TAHC compared to that of placebo (11.14 haris/cm2 vs -3.04 haris/cm2, p=0.0087); 0.25% QD KX-826 group was superior in TAHC at week 24, but no statistically significance. No dramatical change was noticed in KX-826 BID groups compared to placebo (Table 2A). 0.5% QD KX-826 group also showed statistically significant improvement in TAHW compared to that of placebo at week 12 and 24 (0.61 vs -0.03, p=0.0291 at week 12; 0.71 vs 0.06, p=0.0387 at week 24). No significant HGA improvement or change was shown among any groups (Table 2B).

KX-826 was well tolerated, most treatment emergent adverse events (TEAEs) were mild-to moderate severity. Total of 115 (72.3%) subjects experienced 400 TEAEs. The highest incidences of TEAEs were skin and subcutaneous tissue diseases, infection and infestation diseases, and abnormal various laboratory examinations. The most reported drug related TEAEs were both contact dermatitis and itching (Table 3). There were two SAEs, neither was deemed related to the test drug or treatment. No TEAEs required cessation of treatment or leading to death. In addition, types of TEAEs were similar among the different dosage groups, and there was no significant difference in the safety of each group compared with the matched placebo, majority types and severity of the TEAEs were predicted to occur before the study. Overall the safety and tolerance of KX-826 in FPHL were good.

Conclusion:

With different mechanism to minoxidil, spironolactone or finasteride, topical AR antagonist KX-826 does not decrease production of hormones, current 0.5% QD regimen of KX-826 on FPHL showed promising results and was well tolerated, deserves further evaluation. Page 2** of 2**

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 755

Further rapid improvement of alopecia areata by upadacitinib treatment after incomplete amelioration by 9-month baricitinib treatment in a patient with atopic dermatitis

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Introduction & Objectives:

Alopecia areata (AA) is a chronic autoimmune disorder in which patients undergo non-cicatricial hair loss. While reversible, severe AA is often refractory to conventional therapies including topical corticosteroid (TCS) and topical immunotherapy with squaric acid dibutylester (SADBE). Recently, baricitinib, a JAK1/2-selective inhibitor, demonstrated favorable results for severe AA at week 36 in clinical trials. However, certain patients show an inadequate or slow response to baricitinib. Herein we report a patient with severe AA concomitant with atopic dermatitis (AD) successfully treated with upadacitinib after 9-month baricitinib treatment.

Results:

A 44-year-old male with a history of AD since 20 years of age complained of multiple patches of hair loss, and was diagnosed with AA at a local clinic two years previously. He was treated for AA with TCS and received topical immunotherapy with SADBE for the past year, which did not result in significant hair regrowth. Therefore, he was referred to our department for further treatment. At his referral, he had lost almost all of his scalp hair in addition to presenting with erythema and lichenification with slight scales on his entire body. The Severity of Alopecia Tool (SALT) score was 90.9. For severe AA and AD, we prescribed 4 mg/day of baricitinib orally once daily. After nine months of treatment with baricitinib, the area of hair regrowth was limited (SALT score decreased to 73.4). Due to insufficient effectiveness of baricitinib for AA and AD, we switched the treatment to 30 mg/day of upadacitinib orally once daily. In four months, he showed hair regrowth in the area refractory to baricitinib (SALT score decreased to 47.4). Seven months after switching to upadacitinib, hair regrowth was observed on almost his entire scalp (SALT score was 6.1). After ten months of treatment with 30 mg of upadacitinib, its dose was decreased to 15 mg daily due to complete hair regrowth on his scalp. Three months after the reduction in dose of upadacitinib, he is still taking the medication and has maintained full hair regrowth. No remarkable adverse events were observed.

Interferon-γ and interleukin-15 are implicated in the pathogenesis of AA, and they depend on JAK1 for intracellular signaling. Traves et al. reported that upadacitinib more strongly inhibited JAK1-signal transducer and activator of transcription in vitro than baricitinib, which is compatible with the efficacy and safety profiles of each drug in AD patients. Further improvement of AA by upadacitinib after incomplete amelioration by 9-month baricitinib treatment was attributed to stronger inhibition of JAK1 by upadacitinib than by baricitinib. Furthermore, upadacitinib treatment resulted in relatively rapid improvement of AA. In a retrospective cohort study of 25 AA patients treated with upadacitinib, the SALT score significantly decreased at week 24 compared with the baseline score, indicating that upadacitinib treatment would result in more rapid regrowth of hair than baricitinib treatment. Further accumulation of cases and studies is needed to clarify the efficacy of upadacitinib for AA.

Conclusion:

We experienced a case of alopecia areata successfully treated with upadacitinib after incomplete amelioration by 9-month baricitinib treatment concomitant with atopic dermatitis.

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Abstract N°: 1142

Two cases of alopecia totalis patients treated with tofacitinib

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Introduction & Objectives:

Alopecia totalis (AT) is a severe subtype of alopecia areata, characterized by extensive hair loss of the scalp. Management of AT is challenging, and there is no established treatment, yet. Tofacitinib, a Janus kinase 1/3 inhibitor, is approved for the treatment of rheumatoid arthritis, ulcerative colitis, psoriatic arthritis, and ankylosing spondylitis. It is also emerging as a novel treatment option for AT. Herein, we report two cases of AT patients successfully treated with oral tofacitinib.

Materials & Methods:

Results:

Case 1 : A 21-year-old man presented with a hair loss all over the scalp for several years. He was diagnosed with AT at another hospital and was treated with oral cyclosporine for several years. Various treatments were tried for 6 months, including oral cyclosporine, diphenylcylopropenone (DPCP), topical desoxymethasone, tacrolimus and minoxidil, but the therapeutic effect appeared slowly. Tofacitinib was added to treatment for 10 months and there was a noticeable improvement. Baricitinib was also tried instead of tofacitinib for 10 months, but it was less effective, so he switched back to tofacitinib.

Case 2 : A 30-year-old woman presented with a hair loss all over the scalp for 2 months. She was diagnosed with AT and started DPCP therapy with oral cyclosporine, topical desoxymethasone and minoxidil. After a month, she stopped taking oral cyclosporine because of headache, and there was follow-up loss for 4 months. After revisit, she had been treated with tofacitinib and topical minoxidil for 11 months, and the hair has grown back all over the scalp.

Conclusion:

We present two cases in favor of tofacitinib as an attractive treatment option for AT patients, who are refractory and intolerable to conventional treatments. However, further studies are necessary to evaluate its safety and durability in the treatment of AT.

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Abstract N°: 1144

A case of alopecia areata mimicking frontal fibrosing alopecia

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Introduction & Objectives:

Alopecia areata (AA) is an autoimmune non-scarring hair loss disorder with various clinical manifestations from the characteristic well-circumscribed round- or oval-shaped patches to more diffuse patterns.

Frontal fibrosing alopecia (FFA) is a type of primary cicatricial alopecia characterized by a progressive fronto-temporal recession. It is an irreversible process unlike AA. Differential diagnosis between AA and FFA can be challenging when AA is presented as frontal hairline involvement. Herein, we report a case of AA mimicking FFA.

Materials & Methods:

A 21-year-old female patient presented with asymptomatic diffuse hair loss patches on the frontal hairline for 2 years. Receded frontal hairline was also observed. Dermoscopic examination revealed broken and thinned hairs with scalp erythema.

Results:

Histopathologic findings showed increased number of miniatured hair follicles with peribulbar lymphocytic infiltration. The patient was diagnosed with alopecia areata and started intralesional injection of triamcinolone and topical desoxymethasone.

Conclusion:

Although AA and FFA are two distinct disease entity with discrete clinical characteristics, sometimes AA involving frontal hairline can look similar to FFA. FFA should be considered as differential diagnosis of AA, as the timely treatment of FFA is crucial to clinical outcome.

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Abstract N°: 1290

Efficacy of baricitinib in adult patients with severe alopecia areata and comorbid immune disorders.

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Introduction & Objectives:

Baricitinib, an oral selective JAK1/JAK2 inhibitor, is approved for the treatment of adults with severe alopecia areata (AA). Patients with AA often have comorbid autoimmune and/or atopic disease. The present report provides the prevalence of these comorbidities from the BRAVE-AA clinical development program and whether these comorbidities impacted response to therapy.

Materials & Methods:

Data was pooled from patients enrolled in BRAVE-AA1 and BRAVE-AA2, two randomized, placebo-controlled phase III trials. Patients with severe AA (Severity of Alopecia Tool score ≥50) were randomized in a 3:2:2 ratio to receive one daily baricitinib 4mg (515 patients), 2mg (340 patients) or placebo (345 patients), respectively. Baseline medical history was collected along with a prespecified query for 14 common comorbid diseases: androgenetic alopecia, atopic dermatitis, allergic rhinitis, allergic conjunctivitis, psoriasis, vitiligo, Hashimoto's thyroiditis, Graves' disease, ulcerative colitis, celiac disease, allergic asthma, trisomy 21, and type 1/ 2 diabetes mellitus. Patients were classified into three subgroups: comorbid autoimmune, comorbid atopic dermatitis (AD), and comorbid thyroid disease. Patients who reported autoimmune thyroiditis were included in both comorbid autoimmune and comorbid thyroid disease subgroups. The proportion of patients with or without a comorbid condition were compared for the primary endpoint of SALT score ≤20 at Week 36, using non-responder imputation for missing data. A SALT score ≤20 has been defined as a clinically meaningful response. Data were censored as missing for data collected after permanent study drug discontinuation or remote visits due to the COVID-19 pandemic.

Results:

At Week 36, 4%, 20%, and 34% of patients had a SALT score ≤20 at Week 36, respectively, for placebo, baricitinib 2mg, and 4mg treatment groups, Table 1.

Among all patients included in the current analyses, 16% had comorbid AD, 12% had comorbid autoimmune disorders, and 14% had comorbid thyroid disorders.

There was a significant difference between baricitinib treatment (for either dose) and placebo on the clinical response of SALT score ≤20 at Week 36 regardless of comorbid conditions. There was no statistically significant effect for any baseline comorbidity, and there were no statistically significant interactions between treatment and the presence of baseline comorbidities.

Conclusion:

These results indicate that baricitinib 2mg or 4mg treatment in patients with severe AA is efficacious in scalp hair regrowth regardless of comorbid AD, autoimmune disease, or thyroid disorders.

Table 1. Analyses of SALT score ≤20 responses at Week 36 among patients with and without comorbid conditions

			Placebo (N=345)	2mg Baricitinib (N=340)	4mg Baricitinib (N=515)
All patients	Proportion of patients with SALT≤20 at Week 36 N(%)		14 (4%)	67 (20%)	175 (34%)
Comorbid conditions					
Atopic dermatitis	No	Patients N(%)	288 (83%)	286 (84%)	439 (85%)
		Proportion with SALT score ≤20 at Week 36 N(%; 95% CI)	13 (4.5%; 2.7-7.6)	54 (18.9%; 14.8-23.8)*	141 (32.1%; 27.9-36.6)*
	Yes	Patients N(%)	57 (17%)	54 (16%)	76 (18%)
		Proportion with SALT score ≤20 at Week 36 N(%, 95% CI)	1 (1.8%; 0.3-9.3)	13 (24.1%; 14.6-36.9)*	34 (44.7%; 34.1-55.9)*
Autoimmune disorders	No	Patients N(%)	295 (86%)	296 (87%)	462 (90%)
		Proportion with SALT score ≤20 at Week 36 N(%, 95% CI)	14 (4.7%; 2.8-7.8)	62 (20.9%; 16.7-25.9)*	164 (35.5%; 31.3-40.0)*
	Yes	Patients N(%)	50 (14%)	44 (13%)	53 (10%)
		Proportion with SALT score ≤20 at Week 36 N(%, 95% CI)	0	5 (11%; 5.0-24.0)*	11 (20.8%; 12.0-33.5)*
Thyroid disorders	No	Patients N(%)	297 (86%)	295 (87%)	444 (86%)
		Proportion with SALT score ≤20 at Week 36 N(%, 95% CI)	14 (4.7%; 2.8-7.8)	60 (20.3%; 16.1-25.3)*	156 (35.1%; 30.8-39.7)*
	Yes	Patients N(%)	48 (14%)	45 (13%)	71 (14%)
		Proportion with SALT score ≤20 at Week 36 N(%, 95% CI)	0	7 (15.6%; 7.7-28.8)*	19 (26.8%; 17.9-38.1)*

Type 3 analyses of response at Week 36 were performed with treatment and baseline comorbid disorders as variables

* p <0.05 baricitinib vs placebo

CI= confidence internal; SALT= Severity of Alopecia Areata Tool

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Abstract N°: 1456

Superficial acral fibromyxoma with sub-matricial location: a case report with dermoscopic features.

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Introduction & Objectives:

Superficial acral fibromyxoma (SAF) is a benign and rare tumor of the soft tissues. It was 1st described by Fetsch in 2001. Nearby 314 reported cases of superficial acral fibromyxoma with variable locations were found in the current literature.

Materials & Methods:

Herein we illustrate a new case of SAF with sub-matricial location, and discuss the dermoscopic features.

Results:

A 60-year-old woman presented to our dermatology department with a nail deformation on her 4th right finger evolving progressively for 5 years.

Physical examination revealed a slightly tender mass deforming the nail plate into a ventral pseudo-pterygium. Dermoscopy (Dermlite 4, non-polarized mode), objectified a white area without structure, a milky red area, linear vessels, a longitudinal fissure with black “dirty dots” and brownish-yellow subungual hyperkeratosis. The radiological examination was normal, without calcifications, bone erosion or periosteal reaction.

The histopathological examination of excision showed a well-limited and non-encapsulated benign tumor proliferation, it is made of regular spindle or stellate cells dissociated by collagen fibers with an abundant

The histopathological examination of the myxomatous stromal background. the immunohistochemical study confirmed the diagnosis of SAF. The diagnosis of SAF with sub-matricial location, was made and the evolution was good with complete healing without recurrence after 7 months of follow-up.

Conclusion:

SAF with sub-matricial location, is an exceptional benign tumor. Only seven cases had a submatricial presentation of which only two reported dermoscopic features.

SAF with sub-matricial location, is classically presented as a sub-matrix mass deforming the nail plate or may be responsible for a pseudo digital hippocrasis, macro triangular lunula or onychogryphosis. Its growth is slow and asymptomatic. It is predominantly male with a sex ratio of 2.

The particularity of our case is the occurrence of SAF in a woman in the form of a painful sub-matrix mass deforming the shelf into a ventral pseudopterygium.

The diagnosis of sub-matrix SAF is made by clinicopathological and immunohistochemical examination. Dermoscopy can be an aid to positive diagnosis. Cutaneous SAF can classically present as a white pseudoscarring area, bright white striae and arborescent vessels, a red area without structure ,a white pseudoscarring area with small vessels perpendicular to the surface, a yellow area without vascular structures ,a yellow area with digitiform

projections ,longitudinal trachyonychia, onychorrhexis and subungual hemorrhage.

Dermoscopy of sub-matrix SAF is similar to that of cutaneous locations. In our case, dermoscopy revealed a white area without structure, a milky red area, linear vessels, a longitudinal fissure with black “dirty dots” and a brownish yellow subungual hyperkeratosis.

The treatment of SAF is surgery with complete resection of the tumor, incomplete resection may be responsible for recurrence in 20% of cases.

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Abstract N°: 1487

Safety and efficacy assessment of an intradermal gel for treatment of male and female pattern androgenic alopecia

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Introduction & Objectives:

Androgenetic alopecia (AGA) is the most common cause of scalp hair loss that affects men and women.

The aim of this study was evaluating the safety and efficacy of an intradermal gel for treatment of male and female pattern androgenic alopecia.

Materials & Methods:

20 patients, age 18-50 years, with mild to moderate androgenic alopecia (II-IV Norwood Hamilton Scale in male patients and I-II Ludwig Scale in females) who provided written informed consent were recruited in the study. They excluded in case of using topical or systemic treatment for hair loss within past 3 months. Other condition were also considered regarding allergies, history of autoimmune diseases or chemotherapy as well as pregnancy or lactating.

The test product was a gel formulation consisting of 15mg (7.5mg/ml) polynucleotides.

10 injection sessions were performed for each patient using 2 ml of the product, injected intradermally in the hair loss area as aliquots of 0.1 ml with 1-2 cm intervals.

- Month 1: 4 injections with one week intervals (4 injections)

- Months 2, 3, and 4: one injection every 2 weeks (6 injections)

The product efficacy was evaluated by qualified investigator using Global photographic review. In addition combing test was performed to assess the hair loss count and hair analysis were also implemented using trichoscan measurement tool including: total hair density per cm2, terminal hair density (hair thickness>40 micron), terminal/vellus hair ratio, mean thickness of hairs, percentage of hair in the anagen and telogen phases and their ratio.

All measurements were performed before starting treatment, week 6 (after 4 injections), week 18 (two weeks after last injection), and week 24 (8 weeks after last injection).

Results:

10 males and 10 females, aged 37.70 ± 7.81 years (range 22-51 years) were enrolled and completed the treatment period.

According to the Global Photographic Review 65%, 77.8% and 63.2% of patients showed slight/much improvement in hair growth at weeks 6, 18 and 24, respectively.

The results of the comb test showed significant decrease in hair loss at weeks 6, 18 and 24 compared to the baseline, (p-values <0.01, 0.011 and 0.049, respectively) which could be explained by parallel increasing trend of

anagen phase duration.

Trichoscale assessment also showed a significant increase in terminal/vellus hair ratio at weeks 18 and 24 which is accompanied with significant increase in mean thickness of hairs (p-value=0.042).

The treatment was safe and well tolerated by the subjects.

Conclusion:

In conclusion, treatment with the test intradermal gel, significantly decreased hair shedding, increased mean hair thickness and number of thick (terminal) hairs, and improved scalp coverage with high patient satisfaction and safety profile in male and female pattern androgenic alopecia.

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Abstract N°: 1568

Improvements in health-related quality of life and psychological symptoms in patients with severe alopecia areata achieving scalp hair regrowth: results from two randomized controlled trials

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Introduction & Objectives: Baricitinib has demonstrated efficacy on hair regrowth in patients with severe alopecia areata (AA) in two phase 3 trials (BRAVE-AA1/2). Improving health-related quality of life (HRQoL) and psychological symptoms are important treatment objectives in this population. The objective of the analysis was to report the evolution of HRQoL and psychological symptoms in patients who achieved and maintained meaningful scalp hair regrowth (SALT≤20).

Materials & Methods: Patients randomized to baricitinib 4-mg, or 2-mg at baseline in BRAVE-AA1/2 who achieved SALT≤20 by Week 36 and maintained SALT≤20 through Week 76 on the same dose were included in this analysis of integrated data. Improvements in HRQoL and psychological burden were measured using Skindex-16 AA domains (Symptoms/Emotions/Functioning) and Hospital Anxiety and Depression Scales (HADS). Changes from baseline were summarized using descriptive statistics. Missing data were imputed by the last observation carried forward method.

Results: Patients on 4-mg (n=90), had baseline mean SALT score of 77, Skindex-16 Symptoms/Emotions/Functioning values of 19.5/71.7/60.5, and HADS Anxiety/Depression values of 7.01/4.16. Mean changes from baseline at Weeks 36/76 were: Symptoms (-7.46/-9.27), Emotions (-38.56/-44.21), Functioning (-30.5/-38.96), HADS Anxiety (-1.72/-1.90), HADS Depression (-0.81/-1.05).

Patients on 2-mg (n=45), had baseline mean SALT score of 74, Skindex-16 Symptoms/Emotions/Functioning values of 22.1/74.3/49.1, and HADS Anxiety/Depression values of 5.8/3.4. Mean changes from baseline at Weeks 36/76 were: Symptoms (-5.81/-5.98), Emotions (-46.68/-53.6), Functioning (-26.67/-34.96), HADS Anxiety (-1.49/-1.56), HADS Depression (-0.73/-1.41).

Conclusion: This analysis reveals improvements in HRQoL and psychological symptoms in baricitinib-treated patients with severe AA who achieved meaningful scalp hair regrowth by Week 36 which were maintained up to Week 76.

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Abstract N°: 1587

Evaluation of the anti-pollution and cleaning effect of the shampoo RD0057J CD2150 on hair strands. Comparative study versus control.

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Introduction & Objectives:

Environmental pollution can lead to many effects on the hair such as premature ageing of the hair resulting in accelerated natural degradation of the hair cortex and delamination of the cuticle. The use of anti-pollution shampoo can have an important role in protecting hair against the harmful effects of pollution.

The main objective of this study was to evaluate the efficacy of the shampoo RD0057J CD2150 against micro-particles of pollutants and to measure its cleaning effect.

Materials & Methods:

This comparative study was carried out on 12 hair stands of natural and blond/slightly brown hair, divided in 2 parallel groups: S (washed with the tested shampoo + water) and W (washed with water alone – control group).

A pollutant solution was prepared, composed of heavy metals (such as Al, Cu, Pb or Zn between 0.01mg/mL to 0.005mg/mL) and diesel micro-particles (particulate matter at 0.1%), 0.1 to 6.8 µm in size and dispersed in a liquid solution ICP multielements standard V. The hair stands were exposed in a specific device, the PolluBox® allowing a homogeneous deposit of pollutant on the hair (by nebulization).

Qualitative and quantitative measurements of the pollutant deposit on hair were done by image analysis (diesel quantity), spectrocolorimetry (clarity parameter L*).

Statistical analysis (inter-group comparisons) was done with student t-test (significance level at 5%).

The study was done according to the following steps:

- Before exposure to the pollutants: washing of hair stands (S and W groups), with shampoo + water and drying
- Baseline measurements
- Exposure to pollutants In PolluBox® for 90 minutes with 6 ml of pollutant solution in 2 steps, to obtain a uniform distribution of pollutants on the fiber
- Washing the hair strands with water+ tested shampoo (S) or with water only (W), then drying and brushing
- Measurements of the residual deposit after washing.

Results:

After pollutant exposure, all the hair stands are visibly dirty, with a decrease of L* value, and increase of pollutant particles.

After washing (S or W) and drying, we observed in the S group, compared to the W group:

- A significant re-increase of L* (while it remains stable in the W group) hence a cleaning effect significantly higher (p=0.005)
- A significant higher removal of diesel particles (~80% less than in W group, p=0.014)

The use of the RD0057J CD2150 shampoo showed a significant decrease of the number of Diesel micro-particles and a significant reduction in the amount of soiling, in comparison with the control group.

Conclusion:

The results of this clinical study revealed that the use of the shampoo RD0057J CD2150 led to a statistically significant decrease of micro-particles of Diesel and a statistically significant cleaning effect of the hair, suggesting a good anti-pollution activity, that could limit the deleterious impact of air pollution on hair.

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Abstract N°: 1599

alopecia areata induced by anti-TNF alpha

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Introduction & Objectives:

Biotherapies have revolutionized the management and future of patients with inflammatory diseases, but they are accompanied by essential side effects to be aware of for better patient monitoring and optimal therapeutic adherence. Alopecia Areata is one of the adverse cutaneous effect of TNF-α inhibitors that has been rarely described. We report a case that occurred six months after the prescription of adalimumab

Materials & Methods:

Case report:

Mr A.E, 32 years old, has been followed since 2017 for ileocaecal Crohn's disease and has operated on several times for complications such as stenosis and corticosteroid resistance. In 2020, adalimumab was prescribed. Six months later, the patient reports the beginning of an alopecic patch on the scalp which gradually increased in size. In consultation, the examination reveals an alopecic patch of 6 cm long axis at the vertex with a positive sign of traction. On dermoscopy, blackheads, anisotrichia, exclamation point hairs and one hair per orifice were observed. It was then concluded that there was alopecia areata induced by adalimumab in the absence of identification of predisposing factors. A treatment based on clobetasol, minoxidil and betamethasone was prescribed and allowed regrowth at the level of the center and extension to the periphery. The adalimumab could not be stopped and new plaques appeared.

Results:

Only 17 cases of alopecia areata induced by anti-TNF alpha have been described in the literature. In our patient, the absence of other triggering factors for alopecia areata evoked the inducing role of anti-TNF-α. The pathophysiological mechanism of the role of TNF-α in alopecia areata is still uncertain. The activation of auto-reactive T cells by the drug could be the cause of this complication. Genetic factors and receptor polymorphisms have also been suggested in the genesis of these reactions. Alopecia secondary to anti-TNF-α has an unpredictable course ranging from complete cure to discontinuation of treatment or worsening with progression to universal disease. There is no adequate therapeutic protocol.

Conclusion:

The occurrence of alopecia areata in a patient treated with anti-TNF-α should raise the possibility of possible liability for the treatment and consider stopping it if the secondary effect exceeds the therapeutic benefit.

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Abstract N°: 1778

Onychomadesis after pityriasis lichenoides et varioliformis acuta (PLEVA): A Case Report

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Introduction & Objectives:

Nail abnormalities can be a sign of several dermatoses. Onychomadesis is a reversible condition where the nail plate separates from the nail matrix due to severe aggression, which interrupts the matrix's activity. It has been associated with some systemic disorders, infections, local trauma, pemphigus vulgaris and medications, among others. Pityriasis lichenoides is a group of benign T-cell mediated inflammatory dermatoses, including the acute (pityriasis lichenoides et varioliformis acuta, PLEVA) and chronic (pityriasis lichenoides chronica, PLC) forms. Nail involvement in these conditions is rare, and no cases of onychomadesis have been described in pityriasis lichenoides. Here we present a patient diagnosed with PLEVA who developed onychomadesis and discuss the clinical features and pathogenesis of this rare manifestation.

Materials & Methods:

An otherwise healthy male in his 40s was diagnosed with PLEVA based on histological examination of a generalized eruption of erythematous macules and scaly papules. He received oral corticosteroids (30 mg daily followed by dose tapering) and methotrexate (15 mg weekly). Two months later, he developed onychomadesis in several fingernails and toenails, which was documented with clinical images. Consent for publication was also obtained.

Results:

At the 2-month follow-up visit, the patient had onychomadesis in five fingernails and three toenails at different levels, but nail folds were preserved. Some affected nails had scarring and postinflammatory changes on the surrounding skin, while others did not. The nail changes resolved without any medication changes. The patient remained asymptomatic and successfully withdrew from methotrexate after 6 more months of follow-up.

Conclusion:

The mechanism underlying how pityriasis lichenoides could have caused onychomadesis is not well understood. While direct inflammation spreading from skin lesions has been suggested as a possible cause in other dermatoses presenting with onychomadesis, this therory does not explain nail involvement in unaffected fingers and toes. While other chemotherapeutic agents can cause onychomadesis as a result of acute toxicity to the nail matrix epithelium, low-dose methotrexate, which has not been reported to cause onychomadesis, is unlikely to have caused the manifestations in this case.

This case report highlights a rare occurrence of onychomadesis in a patient with pityriasis lichenoides, which resolved without medication changes. The mechanism underlying this phenomenon requires further investigation.

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Abstract N°: 1795

An unusual case of subungual keratoacanthoma

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Results:

An otherwise healthy 49-year-old caucasian woman presented to the Dermatology department with a painful hyperkeratotic nodular lesion located under the distal portion of the nail of the fifth finger of her left hand. She reports rapid growth during the previous month. A radiograph of the left hand revealed an osteolytic lesion in the phalanx underlying the nodule. We performed complete excision of the lesion, adopting a conservative approach with regard to the underlying bone. Histopathology using hematoxylin-eosin staining revealed epidermal hyperkeratosis, parakeratotic foci, a central crater filled with amorphous keratin and little or no nuclear atypia. Clinical and histopathological findings were compatible with subungual keratoacanthoma. There was no recurrence after 1 year of follow-up.

Keratoacanthoma of the nail is extremely rare and usually affects a single digit. History of trauma is frequently reported. Clinically, it appears as a painful, subungual, keratotic nodule that has a characteristic central keratin-filled crater and grows rapidly over a period of weeks. Deep invasion with bone destruction frequently occurs, with evidence of osteolysis on X-ray examination. Differential diagnosis with squamous cell carcinoma (SCC) is often difficult, since they can be clinically and radiografically almost indistinguishable. Unlike keratoacanthoma, SCC occurs in elderly individuals, grows slowly and does not regress spontaneously. On histopathology, it tipically presents with marked cellular and nuclear atypia, abnormal mitotic figures and invasion of the dermis and underlying tissues. Prognosis and treatment options are different. Subungual keratoacanthoma can be treated conservatively whereas Mohs micrographic surgery or amputation are indicated for SCCs that are noninvasive (without bone involvement) or invasive (with bone involvement), respectively.

In conclusion, we report an unusual case of subungual keratoacanthoma on the fifth finger of a 49-year-old woman, highlighting the importance of considering this entity on the differential diagnosis of nail tumors, avoiding mutilating treatments.

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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 1802

Use of SeS2-based shampoo in Brazilian clinical practice.

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Introduction & Objectives: Seborrheic dermatitis (SD) is a chronic, relapsing inflammatory disorder affecting the scalp, face, and trunk. Previous studies demonstrated the Selenium disulfide (SeS2) efficacy to reduce scaling, itching, irritation and redness of the scalp in SD. SeS2 has shown a full spectrum antimicrobial action against Malassezia yeasts and bacterial species.The aim of this observational study was to explore how Brazilian dermatologists currently prescribe the SeS2-based shampoo, and its effectiveness for each situation prescribed in private practice.

Materials & Methods: Dermatologists practicing in 9 states of Brazil were asked to prescribed SeS2-based shampoo to adults, of both sexes, in all hair types and phototypes. Each dermatologist completed a written questionnaire including demographic data, prescribed therapeutic regimen, and evaluation of clinical severity, including; scaling, infiltration, erythema, itching and oiliness of the scalp. Patients were also questionned about treatment satisfaction.

Results: In total, 210 patients received the SeS2-based shampoo prescription by 155 dermatologists. SD was the most common condition addressed by dermatologists (92%). The majority of dermatologists considered the SeS2-based shampoo to treat mild to moderate SD (78%), in a 2-3 times per week regimen. S2-based shampoo was used in monotherapy in 72% of the patients and in association with micro-exfoliatior shampoo in 28% of the cases. After 28 days of treatment, 88% of subjects presented a good improvement. The association of shampoos demonstrated a superior improvement in reducing scalp infiltration, erythema and oiliness, but increased dryness of the hair shafts.

Conclusion: The Brazilian dermatologists considered the SeS2-based shampoo effectiveness to treat a mild to moderate DS. The 2-3 times per week regimen was well tolerated and effective in the majority of patients.

C1 - Internal use

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Abstract N°: 1804

Triangular temporal alopecia in a 1-year old girl- aided by trichoscopic findings, or lack thereof?

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Introduction & Objectives:

Congenital triangular alopecia or triangular temporal alopecia (TTA) is an uncommon type of hair loss seen in the paediatric population, and is often misdiagnosed as alopecia areata. Asymptomatic alopecic patches over the frontotemporal scalp with presence of vellus hairs are its clinical characteristics. Its etiology remains obscure; mosaicism with paradominant inheritance and ectodermal defect have been postulated though. TTA must be differentiated from other types of pediatric alopecia.

Materials & Methods:

We report a case of TTA in a 1-year-old girl, who developed a solitary, flame-shaped alopecia patch on the right side of the temporal region of her scalp for 4 months, which was covered with many vellus hairs.

Results:

Potassium hydroxide (KOH) examination for fungal elements was negative. On trichoscopy, normal hair follicles and vellus hairs were seen while yellow dots, black dots, or hair tapering (exclamation mark hair) were not detected. A final diagnosis of TTA was made.

Conclusion:

The diagnosis of TTA requires a thorough analysis of the clinical morphology, and lesion site. We suggest dermoscopy as a handy and noninvasive means to support the clinical diagnosis. Histopathology can be undertaken in case of doubt. Early diagnosis of TTA can reduce unnecessary and inappropriate investigations and treatment. Surgical treatment with follicular unit hair transplant may restore cosmesis in older patients.

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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 1809

Dermoscopic profile of nail involvement in psoriasis

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Introduction & Objectives:

Psoriasis is a chronic inflammatory disease mainly affecting the skin and joints. Nail involvement is common, affecting 61% of patients with cutaneous psoriasis and 80 to 90% of those with psoriatic arthritis. However, it remains underdiagnosed and represents a diagnostic and therapeutic challenge for dermatologists.

Materials & Methods:

This is a retrospective study, including patients followed for psoriasis at the Dermatology Department of the Mohamed VI University Hospital Center in Oujda

Results:

A total of 162 patients followed for psoriasis were included, of whom 98 had nail involvement. After ruling out isolated onychomycosis, we included 75 patients (46.3%) in our study. The mean age was 43.6 years (7-69) with a F/M ratio of 1.2. The mean PASI score was 17.1 and the mean NAPSI score was 29.5. Different forms of psoriasis were found, particularly plaque psoriasis (67%), guttate psoriasis (13%), pustular psoriasis (8%), and erythrodermic psoriasis (12%). Nail involvement was inaugural in 23% of cases, concomitant with cutaneous involvement in 41% of cases, and of late onset in 36% of cases. The involvement concerned the hands in 30.7% of cases, the feet in 14.6% of cases, and both simultaneously in 54.7% of cases. The most frequently found dermoscopic features were distal onycholysis (66.7%), xanthonychia (64%), trachyonychia (56%), subungual hyperkeratosis (57%), exaggerated transverse striae (58.7%), punctate depressions or the “thumbprint sign” (54.7%), pachyonychia (52%), filiform hemorrhage (37%), and salmon patch (29.3%). Moreover, other rare onychoscopic signs were observed such as periungual erythema (21%), Beau’s line (14.6%), leukonychia (17%), onychodystrophy (13%), longitudinal fissures of the nail plate (onychorrhexis + onychoschisis), and koilonychia (4% each).

Conclusion:

Psoriasis can affect all structures of the nail apparatus, and its clinical expression depends on the location of the disease in each of these structures. Dermoscopy is a non-invasive, rapidly applied, and cost-effective tool that facilitates early diagnosis of nail psoriasis. The most frequently described dermoscopic features in nail psoriasis in the literature are the thumbprint sign, onycholysis, salmon patch, filiform hemorrhage, and subungual hyperkeratosis. Our results thus corroborate those of the literature. In addition, numerous studies have shown a significant correlation between nail involvement and impairment of quality of life and severity of psoriasis, emphasizing the importance of both clinical and onychoscopic examination.

Nail involvement should be systematically sought in patients with psoriasis. Dermoscopy has its place in the early diagnosis of this involvement and in the detection of severe forms in order to allow better management.

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BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 1830

Nail alterations in high-frequency ultrasound after the use of Capecitabine

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Introduction & Objectives:

This article discusses the nail alterations observed in a patient after the use of capecitabine, a chemotherapeutic agent commonly used in the treatment of metastatic breast, colon, and stomach cancers. The objective of this study is to highlight the importance of high-frequency ultrasound in evaluating the nail involvement associated with capecitabine treatment.

Materials & Methods:

A 57-year-old female patient diagnosed with invasive ductal breast carcinoma was undergoing treatment with capecitabine for 5 months, along with trastuzumab for 11 months. She presented with reduced sensitivity, erythema, hyperkeratosis, and fissures in the bilateral palmoplantar regions. Clinical diagnosis of capecitabine-induced hand-foot syndrome with nail involvement was made. High-frequency ultrasound was performed to evaluate the nail bed.

Results:

The patient exhibited erythema and hyperkeratosis in the palmoplantar regions, as well as distal onycholysis of the hallux. High-frequency ultrasound showed increased blood flow in both the palmoplantar regions and the nail bed.

Conclusion:

The adverse effects of chemotherapy often manifest in the skin and its appendages due to the high rate of cell proliferation in these tissues. Although erythema and hyperkeratosis are well-described adverse events of capecitabine use, nail alterations are considered rare occurrences. Nail changes such as subungual hyperkeratosis, onychomadesis, onycholysis, subungual hemorrhage, paronychia, and periungual pyogenic granuloma have been reported. Remission of these alterations is typically observed after discontinuing capecitabine treatment. High-frequency ultrasound, which demonstrates increased vascular flow in the nail bed, provides insights into the potential mechanisms underlying these nail complications. The patient continues to be monitored by the oncology team and is expected to complete chemotherapy soon. Imaging techniques such as high-

frequency ultrasound play a valuable role in understanding the pathogenesis of chemotherapy-induced nail alterations.

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BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 1907

Efficacy and safety of coacillium in children and adolescents with moderate to severe alopecia areata: a randomised, double-blind, multicentre, phase 2-3 trial

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Introduction & Objectives:

Alopecia areata (AA) is an autoimmune mediated disease characterized by rapid onset of hair loss often with chronic relapsing course. There is only one approved treatment for adults with severe AA, alopecia totalis (AT) and alopecia universalis (AU). No treatment is approved for children, adolescents or for patients with a moderate form of AA, albeit early-onset of AA may have a less favorable prognosis. We investigated the efficacy and safety of coacillium in children and adolescents with moderate to severe AA. Coacillium is a botanical drug composed of *Allium cepa, Citrus limon, Theobroma cacao* and *Paullinia cupana.*

Materials & Methods:

A randomised, double-blind, multicentre, phase 2–3 trial, RAAINBOW, was conducted at 12 sites in 4 countries. Patients aged 2 to 18 years with Severity of Alopecia Tool (SALT) score of 25-50 (moderate AA) and 50-95 (severe AA) were randomly assigned to coacillium 22.25% twice-daily (coacillium group), or placebo (placebo group)(2:1). The treatment period of 24 weeks was followed by a treatment-free period of 24 weeks to evaluate disease relapse after treatment discontinuation. No concomitant treatment for AA was allowed. Protocol details are registered with ClinicalTrials.gov, NCT03240627.

Results:

A total of 107 patients were randomly assigned to coacillium (71) or placebo (36). Average age was 11 years old, mean time since onset of disease was 3 years, 45% were female, 60% had severe AA, 40% moderate AA, 52% experienced their first episode of AA and 48% their second flare or more. The primary endpoint was the relative change in SALT score. After 24 weeks of treatment, the average change in coacillium group (+22.87%) was statistically significantly superior to the placebo group (-8.00%) ($p<0.0001$). 73% of coacillium-treated subjects who completed the 24 weeks treatment period responded to treatment. Of those, 96% kept improving after treatment discontinuation, while 4% only experienced disease relapse within the 24 weeks treatment-free period. At week 24, the percentage of patients with a SALT score of 20 or less was 21.2% in coacillium group and 5.3% in the placebo group. At week 48, including 24 weeks without treatment, the percentage of patients with a SALT score of 20 or less was 46.7% in coacillium group and 9.1% in the placebo ($p=0.0031$). Improvement of CDLQI was consistent with treatment effect; at week 48, CDLQI change in coacillium group was -2.52 while change in placebo group was +0.83 ($p=0.0313$). No serious adverse event was reported in the coacillium group. One case of severe transient eczema was reported, while all other AEs were mild or moderate, local and transient.

Conclusion:

In this phase 2-3 trial involving children and adolescents with moderate to severe alopecia areata, coacillium cutaneous solution 22.25% twice-daily was superior to placebo after 24 weeks of treatment and well tolerated.

Discontinuation of drug treatment triggered merely no disease relapse. Coacillium might be a suitable treatment option for children and adolescents with moderate to severe alopecia areata.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 1956

Diagnostic delay, co-morbid hidradenitis suppurativa and the prognostic value of bacterial culture in folliculitis decalvans

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Introduction & Objectives:

Folliculitis decalvans (FD) is a type of primary neutrophilic cicatricial alopecia often leads to irreversible hair loss. Data on its epidemiology, clinical features, outcomes, and prognostic factors are limited. The study aimed to evaluate a cohort of patients with FD and identify characteristics of severe disease and prognostic factors which impede remission

Materials & Methods:

This retrospective cohort study included patients diagnosed with FD between 2010 and 2022. Patients with complete data and at least 6 months of follow-up after FD diagnosis were included. The diagnosis was based on clinical and trichoscopic findings. Disease severity was determined by the size of the largest alopetic patch and classified as mild (Grade I, <2 cm), moderate (Grade II, 2–4.99 cm), or severe (Grade III, >5 cm). Complete remission was defined as the absence of active inflammatory lesions, alopetic patch extension, and symptoms.

Results:

A total 192 patients were included, with 176 men (91.7%) and 16 women (8.3%). The age of disease onset was 28.5 years (±12.3). There was a diagnostic delay averaging 22.2 (±29.7) months. Comorbid follicular occlusion disorders were common. Bacterial cultures were positive in 45.6% of the cases, with Staphylococcus *aureus* being the most common pathogen. Severe FD was associated with comorbid hidradenitis suppurativa ($p<0.001$) and a positive bacterial culture($p=0.008$), particularly *S.aureus* ($p=0.03$). 50.7% of patients experienced complete remission: 32% within the first six months of treatment and 18.7% later during follow-up. Relapses were frequent. In a multivariate logistic regression model, negative prognostic factors for achieving remission included a younger age and a positive bacterial culture.

Conclusion: There is a need for education of dermatologists to reduce the diagnostic delay. Screen FD patients for comorbid hidradenitis suppurativa and obtaining bacterial cultures is important for treatment planning.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 1963

Oral biotin or pyridoxine versus combined regime for treating onychoschizia

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Introduction & Objectives:

Onychoschizia is the most common clinical presentation of nail plate brittleness.

Onychoschizia present with distal nail plate splitting. It is a common condition, mostly seen among women over 50 years old. Several therapeutic approaches exist, mainly derived from on case reports or small non-comparative case series.** The current study aimed to evaluate the efficacy of oral biotin (vitamin B7) or pyridoxine (vitamin B6) alone versus combined treatment regime of these products for onychoschizia.

Materials & Methods:

A retrospective comparative study among patients with idiopathic fingernails onychoschizia between years 2019 and 2022 was conducted. Patients with coexistence of other nail conditions were excluded from the study. Detailed baseline characteristics retrieved from their medical records included age, gender, disease duration and severity, as well as number of involved fingernails. Patients were prescribed 1 mg/day biotin, 100 mg/day pyridoxine or both, for 3 months. Complete response (over 90% improvement) and partial response (over 50% improvement) were assessed after 6 to 9 months.

Results: 61 patients with fingernail onychoschizia (Mean age 40.5 years [range 20-68]; 93.4% females) were included in this study. The average number of affected fingernails was 7.0 (±2.0) per patient. The nail condition lasted averagely 11.6 years (±4.7). Compared to oral biotin or pyridoxine alone, combined treatment regime achieved significantly higher rates of complete response (10%, 11.1% vs. 69.6%, respectively; P-values<.001). Partial response (above 50% improvement) was achieved in an additional 45%, 38.9% and 30.4% of patients treated with combined regime versus biotin or pyridoxine alone, respectively.

No side effects were observed. No deviations from treatment regime were recorded.**

Conclusion: This study demonstrates that that the use of oral biotin and pyridoxine taken together is an effective treatment for fingernail onychoschizia.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2090

risk factors and trichoscopic findings in tractional alopecia

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Introduction & Objectives: Tractional alopecia (TA) is a type of alopecia that develops due to repetitive exposure to traction. While it is non cicatricial in the early stages, it results in cicatricial alopecia in the late stages. Although it is known that prolonged traction leads to hair loss, the duration of traction and other risk factors that may accompany it are not known. In the literature, trichoscopic features of TA have been reported in case reports, but there is no study with a large number of patients. Therefore, we aimed to identify risk factors and evaluate trichoscopic features in patients with TA.

Materials & Methods: Patients with clinical and/or histopathologic diagnosis of TA were included in the study. Age, gender, concomitant systemic and dermatologic diseases, type of traction, daily exposure to traction, and lifetime exposure to traction were recorded. The areas of hair loss were detected, and at least three trichoscopic images were recorded from the most prominent area of hair loss. Trichoscopic findings were recorded and evaluated by a dermatologist experienced in trichoscopy.

Results: The study included 40 female patients (100%) with a mean age of 33.9±9.2 years. 9(22%) patients had comorbid systemic diseases, and 4(10%) had comorbid dermatologic diseases. The three most common areas of hair loss were the left temporal region (n=29, 72.5%), right temporal region (n=27, 67.5%), and frontal region (n=27, 67.5%). 39 (97.5%) of the patients were exposed to traction due to hijab, and 1(2.5%) due to wearing her hair in a tight ponytail. While 9 (22.5%) of the patients were clinically and histopathologically diagnosed, 31(77.5%) were clinically diagnosed. The mean daily traction exposure time was 9.0±4.2 hours, and the mean lifetime traction exposure time was 15.7±9.3 years. The mean duration of hair loss was 64.1±61.0 months. In 7 patients (17.5%), prominent alopecic areas extending linearly on the border of the alopecic area were defined and named as “linear alopecic area.” A fringe sign was observed in 14 (35%) patients. The most common trichoscopic findings in the patients were reduced hair density (n=40, 100%), vellus hair (n=35, 87.5%), yellow dots (n=29, 72.5%), empty follicles (n=27, 67.5%), perifollicular erythema (n=24, 60%) and loss of follicular ostium (n=20, 50%).

Conclusion: In the literature, there is no study evaluating the risk factors and trichoscopic findings of TA. The cases which were reported are generally black patients who developed alopecia as a result of traditional hairstyles. In our study, we evaluated the trichoscopic features of TA lesions in Caucasian patients with a large number of patients. In addition, we think that a new finding called ‘linear alopecic area’ is a finding that can be used in the diagnosis of TA. Tractional alopecia is an entity that should be recognized early because it may lead to permanent hair loss in the late stages. Knowing the risk factors and recognizing the clinical and trichoscopic features will help diagnose.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2091

evaluation of the etiology of the beard loss in the light of trichoscopic findings

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Introduction & Objectives: Loss of beard is a condition that may accompany the loss of hair on the scalp and other body parts as well as can occur isolated. It can lead to cosmetic and psychosocial problems. Loss of beard is frequently observed due to alopecia areata (AA) and trichotillomania (TTM), which cause non-scarring alopecia, while it is rarely observed due to lichen pilanopilaris (LPP) and discoid lupus erythematosus (DLE) that lead to scarring alopecia. Trichoscopy is a helpful and useful method for the diagnosis of hair loss on the beard as well as the scalp. There are no studies in the literature with a high number of patients on trichoscopic findings of beard loss. This study aimed to evaluate the etiology of beard loss in light of trichoscopic findings.

Materials & Methods: Patients admitted to our Hair and Hair Disorder Outpatient Clinic with complaints of hair loss on their beard between November 2022 and March 2023 were included in the study. Age, duration of disease, localization of beard loss, extra-beard involvement areas, concomitant dermatologic and systemic diseases, and medications were recorded. Trichoscopic images were recorded, and trichoscopic features were evaluated by a dermatologist with experience in trichoscopy.

Results: Seventy-five male patients were included in the study. The mean age of the patients was 35.45±11.63 years. 26 patients (34.6%) had accompanying systemic diseases, and 12 patients (16%) had accompanying dermatological diseases. The etiology of beard loss were AA (n=60, 80.2%), LPP (n=6, 8%), dissecting cellulitis (n=3, 4%), DLE (n=1, 1. 3%), keloid (n=1, 1.3%), lupoid sycosis (n=1, 1.3%), mycosis fungoides (n=1, 1.3%), sarcoidosis (n=1, 1.3%) and TTM (n=1, 1.3%). 39 patients (52%) had alopecic patches on the scalp, one patient (1.3%) had erythematous plaques and alopecic patches, one patient (1.3%) had subcutaneous nodules compatible with abscess, one patient (1.3%) had alopecic patches on the subcutaneous nodules with compatible with abscess, 33 patients (44%) had no scalp involvement. In addition, 13.1% of the patients had eyebrow involvement, 10.6% had body hair involvement, 5.3% had nail involvement, and 1.33% had mucosa involvement. The mean duration of the disease was 17.69±37.92 months. The five most common trichoscopic findings were vellus hairs (n=52, 69.3%), branching and linear vessels (n=34, 45.3%), black dot (n=33, 44%), yellow dot (n=25, 33.3%) and peripilar sign (n=22, 29.3%). The most common localization was the left cheek (n=49, 65.3%). We described some new trichoscopic features in our patients with beard loss. Yellowish globules were identified in patients with dissecting cellulitis, irregular orange blotch with follicular opening, and yellowish globules were described in patient with sarcoidosis on trichoscopic evaluation. We also described perifollicular purple blotch in patients with LPP as a new trichoscopic finding.

Conclusion: Alopecia areata is the most common cause of beard loss. However, other rare dermatological conditions should be kept in mind. Especially it can be challenging to diagnose cases with isolated beard loss. Trichoscopy can make it easier to diagnose in a short time and in a non-invasive manner.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2127

Evaluation on clinical features of melanonychia : Using ABCD strategy with band width percentage

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Introduction & Objectives: Differential diagnosis of benign melanoychia and subungual melanoma (SUM) is difficult. For early detection of SUM, ABCD rule has been suggested recently. The purpose of this study is to identify clinical features of benign melanonychia and SUM, and to evaluate validity of using ABCD rule combined with band width percentage.

Materials & Methods: A total of 82 patients diagnosed as melanonychia through biopsy were reviewed. Based on medical chart review, clinical features were evaluated using ABCD rule. “A” strands for adult age, “B” for brown bands in brown background, “C” for periungual skin color, “D” for one digit.

Results: A total of 67 cases non-SUM (81.7%) and 15 cases SUM (18.3%) were retrospectively reviewed. Mean band width percentage (BWP) in SUM was 76.7% while benign group was 30.9%. All 15 cases in SUM (100%) satisfied ABCD rule while 39 of 67 cases (58.2%) in benign group satisfied ABCD rule ($p<0.05$). The percentage of satisfying both ABCD strategy and BWP over 40% in SUM group was higher (15/15, 100%) than that of benign group (17/67, 25.4%) ($p<0.05$). The sensitivity and specificity of using ABCD rule only were 100% and 41.8% respectively, while those of using ABCD rule with band width percentage were 100% and 74.6%.

Conclusion: Using ABCD rule with band width percentage could be more helpful for differential diagnosis of benign melanonychia and SUM lesion than ABCD alone.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2130

Metformin Attenuates the Loss of Keratin 15+ Epithelial Stem Cells an In Vitro Model of Scarring Alopecia

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Introduction & Objectives:

Primary cicatricial alopecias (PCAs) encompass a group of inflammatory scarring hair loss disorders whereby the hair follicle (HF) is irreversibly damaged resulting in permanent patchy alopecia. The damage occurs from inflammation-induced loss of bulge epithelial HF stem cells (eHFSCs) via apoptosis and epithelial-mesenchymal transition (EMT). Thus, a potential target for therapy in PCA is the prevention or reversal of EMT in eHFSCs.

Metformin is a cost-effective and safe drug commonly used in type 2 diabetes and has demonstrated improvement in inflammation and fibrosis in a murine model of fibroproliferative disorders by activating adenosine monophosphate-activated protein kinase (AMPK). As we have previously shown phospho-AMPK to be upregulated within the human HF bulge, we hypothesised that metformin could be effective in the management of PCAs.

Materials & Methods:

To test whether metformin could be effective in the prevention of PCAs, we co-cultured human HFs (n=3 donors) with 40 µM metformin within a 5-day *ex vivo* EMT-induction scarring alopecia model. Subsequently, we analysed the expression of Keratin 15+ (K15+), e-cadherin, vimentin and pAMK using quantitative immunohistomorphometry within the HF bulge region.

Results:

As expected, HFs treated with the EMT-induction cocktail showed significantly decreased e-cadherin and K15+ expression, and significantly increased vimentin expression in the bulge, confirming that EMT induction was successful. Metformin treatment did not mitigate EMT cocktail-induced changes seen in bulge e-cadherin and vimentin expression. However, there was a trending (p=0.0685) protection of K15+ expression in the bulge, and a significant increase in K15+ bulge cells in HFs co-cultured with the EMT cocktail + metformin versus the EMT cocktail-only group (p=0.0252). Supporting this, the total number of nuclei within the bulge decreased in the EMT cocktail-only group versus the vehicle (p=0.0252), and this reduction was completely prevented by co-treatment with metformin (p=0.0022). Together this suggests that metformin prevents the loss of bulge region K15+ cells following substantial EMT-induction within our model. Next, we found a significant decrease in pAMPK immunoreactivity in the EMT cocktail-only group compared to the vehicle group (p=0.0039), however this decline in pAMPK immunoreactivity was not prevented by metformin. Therefore, it is not yet clear whether the protective effects of metformin are exerted via AMPK-dependent mechanisms within our model.

Conclusion:

Our study has shown that metformin protects against the loss of K15+ eHFSCs in the bulge in our EMT-induction scarring alopecia model. This work warrants further investigation with additional donors to determine whether

metformin can effectively prevent eHFSC loss to help manage PCAs.

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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2133

Investigation on the sleep quality and quality of life in alopecia areata and its association with clinical manifestations

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Introduction & Objectives:

Alopecia areata (AA) is a common non-scarring alopecic disease affecting 2% of global population, attributed to the collapse of immune privilege on hair follicle. Previous studies with Pittsburgh sleep quality index (PSQI) or Dermatology life quality index (DLQI) showed impaired sleep quality or quality of life in AA patients compared with healthy control. However, detailed correlation among PSQI, DLQI, and clinical manifestations of AA still needs to be elucidated. Therefore, this study investigated the application of PSQI and DLQI in Korean AA patients and analyzed their correlation with the clinical features of AA including severity of alopecia tool (SALT) and therapeutic response.

Materials & Methods:

Electronic medical records were retrospectively reviewed from 2018 to 2023 a single tertiary referral hospital. PSQI and DLQI data were collected with the patients' demographics and AA-related features including duration, SALT score, preceding stressful event, underlying disease, past or family history of alopecia, hair pull test (HPT), and therapeutic response (evaluated based on the reduction of SALT score).

Results:

A total of 177 subjects were enrolled with the mean age of 38.8 years (male-to-female ratio 1:1.36). Mean PSQI, DLQI, and SALT score were 6.66, 6.05 and 1.74, not showing significant difference according to sex or AA duration. Among overall subjects, 55.3% was poor sleeper (PSQI≥6) and 45.1% had moderate to severe severity of AA (S2-5). Past or family history of AA was identified in 36.1% or 13.5%. Preceding stressful event or HPT positivity was confirmed in 63.8% or 38.4%. DLQI score significantly increased in higher SALT grade (S1: 4.1, S2: 8.4, S3-5: 8.1), while PSQI score showed negative correlation (S1: 7.0, S2: 6.6, S3-5: 5.7) (p<0.05). DLQI score significantly increased in dose-dependent manner with PSQI elevation (4.5, 6.7 or 8.4 in PSQI 0-5, 6-10 or 11-15), vice versa for PSQI score (5.7, 6.2 or 7.6 in DLQI 0-1, 2-5 or 6-30) (p<0.05). The risk of being poor sleeper (PSQI≥6) significantly increased by DLQI elevation (adjusted OR: 1.33) and the risk of moderate to severe impact on quality of life (DLQI≥6) did by PSQI elevation (adjusted OR: 1.23) (p<0.001). Therapeutic response was not significantly correlated with PSQI or DLQI score.

Conclusion:

Significant positive correlation was observed between sleep quality and quality of life in AA patients, however their association with other clinical features including therapeutic response was found insignificant.

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Abstract N°: 2198

2940-Nm Ablative Fractional Erbium Yag Laser, Used in Combination with Topical 5% Minoxidil Versus 5% Minoxidil Alone, for the Treatment of Androgenetic Alopecia a Randomized Controlled Trial

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Introduction & Objectives: ** androgenetic alopecia (AGA) is the most common type of hair loss in men and several treatment options have been proposed for it. Fractional ablative Erbium Yag laser has been proposed by animal and human studies so this study aims to evaluate minoxidil alone and in combination with fractional ablative Erbium Yag laser in male patients with AGA.

Materials & Methods:

This study was performed on 30 male patients with moderate to severe AGA. Patients were equally randomized into two groups and the intervention group was treated with 1ml of topical5% minoxidil twice daily and 6 sessions of 2940-nm ablative fractional erbium YAG laser and the control group received topical5% minoxidil alone. The assessment was done using photography, dermoscopy, and patient satisfaction using the 7-point scale grading.

Results:

Both groups achieved statistically significant improvement according to terms of patient satisfaction, photography score, and dermoscopy. The group receiving a combination treatment of laser with minoxidil achieved a higher dermoscopy score than the patients receiving minoxidil alone (p-value = 0.016). However, there was no difference between the two groups in photography score (p-value = 0.13).

Conclusion:

laser treatment can stimulate the hair follicles and also can enhance the dermal delivery of minoxidil which was associated with slightly better outcomes in this study.

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Abstract N°: 2200

Increased upper dermal blood flow is a favorable hair regrowth sign in alopecia areata treated with Janus kinase inhibitors

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Introduction & Objectives:

Photoacoustic microscopy (PAM) is an imaging device that can non-invasively visualize specific intradermal light absorbers, such as hemoglobin and melanin by detecting their vibration of the adiabatic expansion. The depth information of these light absorbers is obtained from the propagation time between pulsed light irradiation and reception of the vibration, which enables high-contrast three-dimensional imaging of the intracutaneous blood vessel structure and melanin deposition.

Alopecia areata (AA) results from the destruction of anagen hair bulbs by autoreactive CD8+ T cells driven by IFN-γ-JAK signaling. Although Janus kinase (JAK) inhibitors have demonstrated favorable efficacy in the treatment of severe AA (over 50% of hair loss [SALT score > 50]), approximately half of the patients do not respond. Furthermore, their initial responses often require 2-4 months or even longer in some cases, and current outcome measures are largely subjective. The identification of biomarkers that reflect disease activity and can be measured objectively, would lead to the improvement of daily clinical practice of patients with AA as well as the support of AA clinical trials.

We hypothesized that JAK inhibitor will suppress the inflammation and cytokine production that leads to blood dilation thereby provide a favorable microenvironment for hair follicles to regrow.

Materials & Methods:

To test this hypothesis, we conducted PAM (WEL5200, Advantest Corporation, Japan) examination on five (two female, three male) adult patients with severe AA (SALT > 90) treated by JAK inhibitors. Patients received PAM investigation before and 1, 2, 4 months after JAK inhibitor (four patients received barcitinib and one patient received abrocitinib).

Results:

Initial hair regrowth was observed in three out of five patients in one month after the JAK inhibitor administration. At the same time, photoacoustic microscopic examination demonstrated an increase in the upper dermal blood flow, i.e., an increase in the hemoglobin signal in the upper dermis (at a depth of 201-400 μm), in 2 out of 3 responders. Sustained hair growth was maintained afterward, these three responders eventually achieved a SALT score below 20. On the other hand, in the two patients who did not show any hair regrowth, hemoglobin density decreased after the treatment. Regardless of the responsiveness to the treatment, there was no association between hair regrowth and hemoglobin density in the deeper dermis (at a depth of 401-800 μm).

Conclusion:

Although we did not identify any early markers of hair regrowth, these results indicated the possibility that an increase of blood flow in the upper dermis might be essential for favorable hair growth in the treatment of AA

with JAK inhibitors. In addition, this finding of increased blood flow also may suggest that a favorable course of treatment may be maintained in the subsequent period. The accumulation of cases may lead to the discovery of new findings, and further research using photoacoustic microscopy is anticipated.

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BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2228

How to Succeed with Hair Stimulating Treatments in Females

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Introduction & Objectives:

Hair loss is often perceived as cosmetic rather than medical, and a common complaint among dermatologists is that patients often turn to cosmetic clinics first for treatment. But even with a correct diagnosis at a dermatology clinic, many physicians are reluctant in treating female hair loss patients with minoxidil. Common reasons to this hesitancy might be fear of side effects and lack of knowledge about dosing and follow ups. This presentation demonstrates the use of topical and oral minoxidil in different hair loss diseases, and what to look for if patients are not experiencing results.

Minoxidil is not a new invention, but arguable one of the most efficient hair growth stimulating treatments that exists.

This presentation includes a step by step approach in how to succeed with both topical and oral minoxidil, and which checkpoints to go through if patients are not experiencing the desired results of minoxidil.

Materials & Methods:

Nine female patients with different hair loss conditions, diagnosed by the author clinically or by histology, received either topical or oral minoxidil as the only treatment or part of a combination therapy. Follow-up time was up to 18 months. The hair loss conditions were female pattern hair loss, alopecia areata, chronic telogen effluvium and frontal fibrosing alopecia. Evaluation of the results were based on the patients´ own and author´s examination, and pictures taken before and during the treatment. Blood tests and blood pressure were monitored in patients using oral minoxidil.

Results:

Visible improvement in hair density and reduction in hair shedding was accomplished. The dosage of oral minoxidil was 0.625 mg daily, and in those receiving topical treatment, the solution was 5% once daily.

Two of the patients on oral minoxidil experienced mild hypertrichosis, in spite of that, they both continued with the treatment. Because of the use of low grade topical steroids, none of the patients receiving topical minoxidil experienced irritative dermatitis.

No serious adverse reactions were reported.

Conclusion:

Minoxidil, whether it is oral or topical, is a safe and effective medication to stimulate hair growth, even in female patients. The hair stimulation part is unfortunately often not addressed when treating hair loss diseases, focusing only on hormonal or immunosuppressive options. An integrative part of succeeding with hair loss treatments, is combination therapy, where the reason to hair loss is addressed, as well as stimulating to increased hair growth.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2261

Real world practice indirect comparison between baricitinib and tofacitinib for severe alopecia areata: results from an Spanish third level hospital retrospective study.

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Introduction & Objectives:

Alopecia areata (AA) is an autoinmune non-scarring alopecia with chronic and relapsing course. It usually has a high psychological impact, with alopecia areata universalis (AAU) being its most severe variety. In recent years, Janus kinase inhibitors have emerged as a possible therapeutic target, with baricitinib being approved by the Food and Drug Administration (FDA) in 2022 for use in AA . Other JAK inhibitors such as tofacitinib (JAK1 and JAK3 inhibitor) have been used before, with no clinical trials comparing them face to face with baricitinib.

The objective of this case series study is to determine the effectiveness of oral tofacitinib and oral baricitinib for the treatment of the different subtypes of AA under conditions of daily clinical practice.

Materials & Methods:

We present a case series of 37 patients (age 12-65) with severe refractory AA (29 with AAU, 2 with ophiatic AA and 6 with plaque AA) who were treated with oral JAK inhibitors (16 with baricitinib and 21 with tofacitinib) between July 2018 and March 2023, accompanied by the following data: age, sex, years of evolution of your AA, previous treatments, comorbidities and side effects. To determine response to treatment, the alopecia severity scale (SALT) was used at months 0, 3, 6 and 12 (if achieved) of treatment.

Results:

In both groups a great improvement in alopecia severity was achieved. At 6 months of treatment, a median reduction of 38 points in SALT scale was achieved in the tofacitinib group (versus a median reduction of 26 points in the baricitinib group). Tofacitinib had to be suspended in three cases due to significant side effects: 2 due to secondary arthralgia and 1 due to chronic urticaria. No other significant side effects occurred in both groups. 5 of the patients treated with baricitinib had received prior treatment with tofacitinib and had switched due to lack of efficacy/absence of sustained response. In 2 of them, regrowth was observed, improving the results of tofacitinib, in 2 was observed stability, and 1 patient had a clear worsening. Patient satisfaction and improvement in their quality of life was remarkable. The limitations were the small size of the sample and the absence of a control group.

Conclusion:

Both baricitinib and tofacitinib seem to be an effective and safe alternative for the treatment of the different subtypes of refractory AA. Tofacitinib seems to have an earlier effect while having more important side effects.

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BERLIN 11-14 OCTOBER 2023
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Abstract N°: 2322

Characterization of Gut Microbiota in Patients with Alopecia Areata

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Introduction & Objectives: Alopecia areata (AA) is a nonscarring hair loss disease characterized by an autoimmune response to anagen hair follicles. The exact etiopathogenesis is still unknown, and a combined effect of environmental and genetic factors may be involved. Numerous researches have shown imbalances in the gut microbiota contribute to the development of autoimmune diseases, but the association between AA and gut microbial dysbiosis remains unclear. Our aim was to identify and compare the composition of gut microbiome in patients affected by AA and healthy controls (HC) and to investigate possible bacterial biomarkers of the disease.

Materials & Methods: We conducted a cross-sectional study that involved 19 AA patients and 20 HC. Fecal samples were collected and amplified via polymerase chain reaction using fusion primers targeting from V3 to V4 regions of the 16S rRNA gene and sequenced using Illumina MiSeq Sequencing system. The relationships between fecal bacteria were analyzed using the EzBioCloud database.

Results: The three major genera that constitute the AA gut microbiome's core are *Bacteroides, Blautia*, and *Faecalibacterium.* The α-diversity of AA group no statistically significant differences compared with the HC group ($p>0.05$). However, bacterial community compositions in AA were significantly different from HC according to Jensen-Shannon dissimilarities ($p<0.05$). In patients with AA, we found an enriched presence (LDA Score>2) of the genera *Blautia* and *Eubacterium_g5* compared to the HC group ($p<0.05$), whereas *Bacteroides* were lower ($p<0.05$).

Conclusion: The overall gut microbiota composition of AA patients was distinct from that of HC. Our findings suggest a possible involvement of gut microbiota in the unclear pathogenesis of AA. Further studies are needed to elicit the potential use of identified microbiota as a diagnostic tool or therapeutic target.

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Abstract N°: 2375

Safety assessment of a ready-to-use line of topical vehicles for personalized alopecia treatments

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Introduction & Objectives

Alopecia is a chronic dermatological disorder characterized by partial or complete hair loss from one or more areas of the body, most commonly affecting the scalp. It can be categorized into nonscarring when the follicular unit remains patent during the progression of the disease, and scarring when the destruction of the hair follicle occurs. Therefore, early diagnosis and treatment are crucial to optimize the disease progression. Standard topical medications available often contain ingredients such as alcohol, propylene glycol, parabens, and other solvents that help to solubilize the active ingredients, however, can lead to scalp irritation, undesirable hair texture, and dryness of the skin, potentially damaging hair structure. Compounded medicines are promising alternatives or adjuvant solutions for personalized alopecia treatments as they allow flexible dosing and avoid hazardous excipients contributing to tailored patient needs. In addition, previous studies suggested that adequately formulated medicines can help to maintain the physiology of the hair system and improve local active ingredient absorption. This study aimed to evaluate the clinical safety of a ready-to-use line of vehicles for compounding pharmacies containing patented technology. We investigated its primary and accumulated skin irritation and sensitization potential as well as its photoallergic and phototoxic effects.

Materials & Methods

The primary and cumulative irritation and sensitization effects were evaluated in 52 healthy volunteers, male and female, aged from 18 to 69 years, with skin phototypes II to IV (Fitzpatrick). The photoallergic and phototoxic effects were assessed in 32 healthy volunteers, male and female, aged from 20 to 70 years, with skin phototypes II to III (Fitzpatrick). Both studies were performed under maximized conditions, controlled product quantity, and application site, in a comparative single-blinded manner. During the induction period, the test product and control were applied to patch test filter paper discs and then applied to the right or left back (scapular area) of the study subjects. The applications were performed 3 days per week, for 3 consecutive weeks. This period was followed by a washout period of at least 10 days. Then, the challenge period started, and a single application of the patch test was performed. The study subjects were assessed by a dermatologist at the start and the end of the study (after 6 weeks) and followed by trained staff during the entire period.

Results

No adverse reactions were observed during the induction or challenge study periods. The tested compounded product did not induce primary or accumulated skin irritation, photoallergy, or phototoxicity.

Conclusion

Our results suggest that the ready-to-use natural-based vehicles line for compounding pharmacies exhibited no irritating, sensitizing, photoallergic, or phototoxic effects, indicating that they are good options for personalized treatments used in alopecia.

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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2465

A Selenium Disulfide-based shampoo is beneficial in the management of various hair and scalp conditions: results from a real-world study conducted in China in 759 subjects

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Introduction & Objectives:

Different scalp and hair conditions such as seborrheic dermatitis (SD)/dandruff, hair loss including androgenetic alopecia (AGA), scalp folliculitis, as well as inflammatory skin conditions, such as scalp psoriasis, impact, due to clinical signs and symptoms, the individuals' quality of life (QoL). The aim of this study was to assess in real-world clinical practice in subjects with any scalp and/or hair condition, the clinical benefit, satisfaction and improvement of QoL with a 1% Selenium Disulfide based shampoo (SeS2 shampoo) also containing, 0.9% Salicylic Acid, Vitamin E and Ceramide-R.

Materials & Methods:

A real-world, observational study was conducted in 759 Chinese subjects with any scalp and hair condition who used the SeS2 shampoo as indicated by their dermatologist. Dermatologists assessed clinical signs at baseline. At the end of the study, dermatologists rated the product performance and satisfaction while subjects rated product satisfaction and QoL using a modified DLQI.

Results:

A total of 759 subjects were included. 55.2% were women, 84.2% were aged between 18 and 50 years, 90.2% had an oily or mixed skin type.

A total of 967 diagnoses were made: 80.8% had SD/dandruff, 23.3% had AGA, 5.1% had scalp folliculitis and 4% scalp psoriasis; 151 subjects had multiple diagnoses whereas 84.8% had SD. Most subjects had moderate to very severe scaling (59.8%), pruritus (71.7%), or scalp greasiness (78.9%).

SeS2 shampoo was applied in average during 3 weeks, 3 times/week. It was used alone by 74.6%, or as an adjunct to medication especially in those who had multiple diagnosis/conditions, such as hair loss patients along with SD/dandruff.

Dermatologists agreed that SeS2 shampoo is beneficial (89.6%) and very well tolerated (95.3%) with subjects being highly compliant to treatment (94.8%). Dermatologists highly recommended SeS2 shampoo (97.5%).

Overall, 87.1%, 87.2%, and 84.3% of the subjects, respectively reported that their dandruff, itching, and greasy scalp had improved or disappeared; 90.9%, 89.6% and 81.6%, respectively stated that, based on the DLQI, their scalp itch/pain or stinging, embarrassed or self-conscious feeling, problems with partner/close friends / relatives, had improved or totally relieved; 93.3% of the subjects were highly satisfied with the SeS2 shampoo, 91.4% were willing to continue its use.

Conclusion:

The tested 1% SeS2-based shampoo is beneficial and highly appreciated by both dermatologists and subjects of

various, common scalp and hair disease.

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Abstract N°: 2478

An ex vivo evaluation of the efficacy of medical device containing Pistacia lentiscus and hyaluronic acid to treat and prevent onychomycosis

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Introduction & Objectives:

Onychomycosis is a fungal infection of the nail. It is the most common nail infection encountered in clinical practice with a worldwide prevalence of 5.5%. The main causal agent is Trichophyton rubrum. Nail discoloration, nail separation, brittleness and thickening are the main symptoms. Onychomycosis can significantly impair life quality. There are several treatment options, including oral and topical antifungals, device-based therapies and combination therapies. Recurrences are reported at a rate of 20–25%. Topical antifungal prophylaxis minimises the recurrence risk. In this study, we evaluated the efficacy of a medical device containing Pistacia lentiscus and hyaluronic acid (MDPH) on the treatment (Study-S1), prevention (Study-S2) and transfection of onychomycosis (Study-S3) in an ex vivo model.

Materials & Methods:

S-1 Treatment: An ex vivo model of T. rubrum onychomycosis was developed using healthy volunteers' nail fragments. MDPH was applied once a day for 2 weeks on the surface of infected nails. Colony-forming unit (CFU) and scanning electron microscopy (SEM) imaging were performed for treated and untreated nails.

S-2: Prevention: MDPH was applied once a day for 2 weeks on the surface of healthy nails that were posteriorly inoculated with T. rubrum. CFU and SEM imaging were performed.

S-3: Coincubation of infected and non infected nail fragments were treated with MDPH daily for 2 weeks. CFU and SEM imaging were performed.

Results:

S-1: A significant reduction of T. rubrum CFU was observed after 2 weeks in treated nail fragments compared to untreated nail fragments (- 99.61% $p<0.005$). SEM analysis confirmed these results.

S-2: MDPH demonstrated efficacy in preventing T. rubrum infection (-99.99% $p< 0.005$) compared to control. SEM analysis confirmed the results.

S-3: MDPH prevented T. rubrum transfection from infected nail fragments to adjacent uninfected nail fragments (-99.99% $p< 0.005$). SEM analysis confirmed the results.

Conclusion:

MDPH demonstrates efficacy in the prevention and treatment of T. rubrum infection in an ex vivo model. Clinical studies are needed to assess safety and efficacy of MDPH in treating and preventing onychomycosis.

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Abstract N°: 2522

Deuruxolitinib (CTP-543) achieves significant regrowth of scalp hair in adult patients with moderate to severe alopecia areata: Efficacy results from the multinational, double-blind, placebo-controlled THRIVE-AA2 Phase 3 trial

Athanasios Tsianakas[1], Ulrike Blume-Peytavi[2], Thierry Passeron[3, 4], Oscar Muñoz Moreno-Arrones[5], Adriána Evelin Csernus[6], Colleen Hamilton[7], James Cassella[7]

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Introduction & Objectives: Alopecia areata (AA) is an autoimmune disease that causes partial or complete loss of hair, leading to reduced quality of life and a considerable psychosocial impact on patients. Without effective treatment, many individuals with chronic AA will have persistent multifocal recurrent disease, and some may progress to more severe forms. Deuruxolitinib (CTP-543), an inhibitor of Janus kinase (JAK)1 and JAK2, has demonstrated significant improvements in hair regrowth compared with placebo in both a Phase 2 dose-ranging trial (NCT03137381) and in the Phase 3 THRIVE-AA1 trial (NCT04518995). Here, efficacy results from the second Phase 3 clinical trial of deuruxolitinib (THRIVE-AA2; NCT04797650) in adult patients with moderate to severe AA are reported.

Materials & Methods: Patients aged 18–65 years with AA, ≥50% scalp hair loss (as measured by the Severity of Alopecia Tool [SALT] score) and a current AA episode lasting >6 months to ≤10 years were eligible. Participants were treated with deuruxolitinib 8 mg twice daily (BID), deuruxolitinib 12 mg BID or placebo for 24 weeks. The primary endpoint was the proportion of patients achieving an absolute SALT score of ≤20 at Week 24. Secondary endpoints assessed the percentage of patients achieving an absolute SALT score of ≤20 and relative changes in SALT score over time.

Results: Of 517 patients enrolled, the mean age was 39 years, 67.5% were female, 79.7% were White and 61.3% had a SALT score of ≥95. Patients were randomized 2:1:1 to deuruxolitinib 8 mg (n = 258), deuruxolitinib 12 mg (n = 129) or placebo (n = 130). Both doses of deuruxolitinib met the primary efficacy endpoint (SALT score of ≤20 at Week 24). For 8 mg and 12 mg, 33.0% and 38.3% of patients achieved an absolute SALT score of ≤20 at Week 24 vs 0.8% for placebo ($p < 0.0001$). Significant differences vs placebo for both doses of deuruxolitinib were seen as early as 12 weeks ($p < 0.0001$). In addition, 24.9% and 26.7% of the 8 mg and 12 mg groups, respectively, achieved a SALT score of ≤10 at Week 24 compared with 0% for placebo ($p < 0.0001$). Relative changes from baseline at Week 24 and achievement of 75% and 90% improvement from baseline for both dose groups vs placebo were also significant ($p < 0.0001$ and $p < 0.0001$, respectively). Additionally, statistically significant differences in the relative change in SALT scores from baseline were observed as early as 4 weeks.

Conclusion: Both doses of deuruxolitinib resulted in significant regrowth of scalp hair, starting as early as 12 weeks and continuing throughout the 24-week study period. The results are consistent with data from the THRIVE-AA1 trial, demonstrating the considerable efficacy of deuruxolitinib in the treatment of moderate to severe AA.

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Abstract N°: 2527

Deuruxolitinib (CTP-543) is generally well tolerated in patients with moderate to severe alopecia areata: Safety results from the multinational, double-blind, placebo-controlled THRIVE-AA2 Phase 3 trial

Ulrike Blume-Peytavi[1], Athanasios Tsianakas[2], Thierry Passeron[3, 4], Oscar Muñoz Moreno-Arrones[5], Adriána Evelin Csernus[6], Colleen Hamilton[7], James Cassella[7]

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Introduction & Objectives: Alopecia areata (AA) is an autoimmune disease that causes partial or complete hair loss, leading to reduced quality of life and a considerable psychosocial impact on patients. Without effective treatment, many individuals with chronic AA will have persistent multifocal recurrent disease, and some may progress to more severe forms. Deuruxolitinib (CTP-543), an inhibitor of Janus kinase (JAK)1 and JAK2, has demonstrated significant improvements in hair regrowth vs placebo in both a Phase 2 dose-ranging trial (NCT03137381) and the Phase 3 THRIVE-AA1 trial (NCT04518995). Here, safety results from the second Phase 3 clinical trial of deuruxolitinib (THRIVE-AA2; NCT04797650) in adult patients with moderate to severe AA are reported.

Materials & Methods: Patients aged 18–65 years with AA, ≥50% scalp hair loss (as measured by the Severity of Alopecia Tool score) and a current AA episode lasting >6 months to <10 years were eligible. Participants were treated with deuruxolitinib 8 mg twice daily (BID), deuruxolitinib 12 mg BID or placebo for 24 weeks. Safety and tolerability were assessed by evaluating adverse events (AEs), vital signs, concomitant medications, clinical laboratory results and physical examinations.

Results: Overall, 517 patients were enrolled (mean age 39 years; 67.5% female; 79.7% White; 61.3% SALT score ≥95). In the safety population, 515 patients were randomized 2:1:1 to deuruxolitinib 8 mg (n = 256), deuruxolitinib 12 mg (n = 129) or placebo (n = 130). Overall, 206 (80.5%), 105 (81.4%) and 91 (70.0%) patients in the deuruxolitinib 8 mg, deuruxolitinib 12 mg and placebo groups, respectively, experienced AEs. Serious AEs occurred in five patients; one had one event (influenza pneumonia) considered possibly related to deuruxolitinib. The most common AEs (occurring in ≥5% of patients) were COVID-19 (20.6%), asymptomatic COVID-19 (14.8%), nasopharyngitis (12.6%), headache (12.4%), acne (7.6%), and elevated blood creatine phosphokinase (6.2%). One instance each in the 8 mg group (0.4%) of decreased hematocrit, decreased hemoglobin, increased hemoglobin, and increased red blood cell count were observed. Of 45 patients who did not complete the study, 8 (17.8%) discontinued due to AEs (7 from the deuruxolitinib 8 mg group and 1 from the placebo group). Incidence and severity of AEs were similar for the 8 mg and 12 mg groups. There were no clinically meaningful treatment group trends for vital signs or electrocardiogram results. No deaths or thromboembolic events, including deep vein thromboses or pulmonary embolisms, occurred.

Conclusion: These results, similar to those obtained in THRIVE-AA1, demonstrate that both doses of deuruxolitinib were generally well tolerated, which reinforces the concept that the overall safety profile when administered to patients with moderate to severe AA is encouraging. These results also demonstrate that deuruxolitinib is consistent with the known safety profiles of other JAK inhibitors.

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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2534

Patient satisfaction and impressions of severity of moderate to severe alopecia areata are improved by deuruxolitinib (CTP-543): Patient-reported outcomes from the multinational, double-blind, placebo-controlled THRIVE-AA2 Phase 3 trial

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Introduction & Objectives:
Alopecia areata (AA) is an autoimmune disease that causes partial or complete loss of hair, leading to reduced quality of life (QoL) and considerable psychosocial impact on patients. Without effective treatment, many individuals with chronic AA will have persistent multifocal recurrent disease, and some may progress to more severe forms. Deuruxolitinib (CTP-543), an inhibitor of Janus kinase (JAK)1 and JAK2, has demonstrated significant improvements in hair regrowth compared with placebo in both a Phase 2 dose-ranging trial (NCT03137381) and in the Phase 3 THRIVE-AA1 trial (NCT04518995). Here, patient-reported outcomes (PROs) from the second Phase 3 clinical trial of deuruxolitinib (THRIVE-AA2; NCT04797650) in adult patients with moderate to severe AA are reported.

Materials & Methods: Patients aged 18–65 years with AA, ≥50% scalp hair loss (as measured by the Severity of Alopecia Tool score) and a current AA episode lasting >6 months to <10 years were eligible. Participants were treated with deuruxolitinib 8 mg twice daily (BID), deuruxolitinib 12 mg BID or placebo for 24 weeks. A key secondary endpoint was percentage of responders 'satisfied' or 'very satisfied' on the Hair Satisfaction Patient-Reported Outcome (SPRO) 5-point rating scale at Week 24. Other secondary endpoints included percentage of responders 'much improved' or 'very much improved' on the Patient Global Impression of Improvement (PGI-I), and change from baseline on the Patient Global Impression of Severity (PGI-S) and Hair Quality Patient-Reported Outcome (QPRO) scales.

Results: Overall, 517 patients were enrolled (mean age 39 years; 67.5% female; 79.7% White; 61.3% SALT score ≥95). In the PRO population, 503 patients were randomized 2:1:1 to deuruxolitinib 8 mg (n = 249), 12 mg (n = 127) or placebo (n = 127). On the SPRO, 46.5% and 51.7% of the 8 mg and 12 mg groups, respectively, reported being 'satisfied' or 'very satisfied' with their hair at Week 24 vs 1.7% for placebo ($p < 0.0001$). On the PGI-I, 50.9% and 68.3% of the 8 mg and 12 mg groups, respectively, reported their hair being 'much improved' or 'very much improved' at Week 24 vs 1.7% for placebo ($p < 0.0001$). At Week 24, both deuruxolitinib doses showed significant differences vs placebo when evaluated on the PGI-S ($p < 0.0001$) and PGI-I ($p < 0.0001$). Patients on both deuruxolitinib doses also reported significant differences vs placebo at Week 24 for satisfaction with *thickness* ($p < 0.0001$) and *evenness* ($p < 0.0001$) of scalp hair coverage (QPRO).

Conclusion: Consistent with data from THRIVE-AA1, patient satisfaction and impressions of severity and improvement of scalp hair were significantly higher with both doses of deuruxolitinib vs placebo, demonstrating that significant improvements in patient satisfaction are achieved alongside the efficacy of deuruxolitinib.

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Abstract N°: 2538

Improvements in eyebrow and eyelash regrowth with deuruxolitinib (CTP-543) treatment of moderate to severe alopecia areata: Patient- and clinician-reported outcomes from the multinational, double-blind, placebo-controlled THRIVE-AA2 Phase 3 trial

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Introduction & Objectives: Alopecia areata (AA) is an autoimmune disease that causes partial or complete loss of hair on the scalp but can affect other body hair, leading to reduced quality of life and a considerable psychosocial impact on patients. Without effective treatment, many individuals with chronic AA will have persistent multifocal recurrent disease, and some may progress to more severe forms. Deuruxolitinib (CTP-543), an inhibitor of Janus kinase (JAK)1 and JAK2, has demonstrated significant improvements in hair regrowth compared with placebo in both a Phase 2 dose-ranging trial (NCT03137381) and in the Phase 3 THRIVE-AA1 trial (NCT04518995). Here, changes from baseline in clinician- and patient-reported assessments of eyebrows and eyelashes in the second Phase 3 clinical trial of deuruxolitinib (THRIVE-AA2; NCT04797650) in adult patients with moderate to severe AA are reported.

Materials & Methods: Patients aged 18–65 years with AA, ≥50% scalp hair loss (as measured by the Severity of Alopecia Tool [SALT] score) and a current AA episode lasting >6 months to <10 years were eligible. Participants were randomized 2:1:1 to deuruxolitinib 8 mg twice daily (BID), deuruxolitinib 12 mg BID or placebo for 24 weeks. The Brigham Eyebrow Tool for Alopecia (BETA) and Brigham Eyelash Tool for Alopecia (BELA) (both graded from 0 = absent to 6 = very dense) were used by blinded central raters to assess patients who had eyebrow/eyelash loss at baseline. A Hair Quality Patient-Reported Outcome (QPRO) scale assessing satisfaction with eyebrows and eyelashes (1 = very satisfied to 5 = very dissatisfied) was also employed. All values presented are mean change from baseline to Week 24.

Results: Overall, 517 patients were enrolled (mean age 39 years; 67.5% female; 79.7% White; 61.3% SALT score ≥95). 325 patients in the 8 mg BID (n = 156), 12 mg BID (n = 83), and placebo (n = 86) groups had a change in BETA of 1.2, 1.2, and -0.3, respectively. 300 patients in the 8 mg BID (n = 153), 12 mg BID (n = 69), and placebo (n = 78) groups had a change in BELA of 1.4, 1.3, and 0.0, respectively. Significant treatment differences in both assessments vs placebo were found with both doses of deuruxolitinib starting at 12 weeks, increasing through 24 weeks of treatment (all $p < 0.0001$). Similarly, 8 mg, 12 mg, and placebo groups had changes in the QPRO of -1.4, -1.6, and -0.1 for eyebrows, and -1.3, -1.3, and -0.1 for eyelashes, respectively. Improvements in patient-reported satisfaction with eyebrows and eyelashes with both doses of deuruxolitinib vs placebo were significant at 12 weeks, continuing up to 24 weeks (all $p < 0.0001$).

Conclusion: Consistent with results from the THRIVE-AA1 trial, both clinician-rated assessments and patient satisfaction with eyebrow and eyelash hair were significantly higher for both deuruxolitinib 8 mg and deuruxolitinib 12 mg vs placebo, starting at 12 weeks and extending through 24 weeks of treatment.

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Abstract N°: 2601

Immunohistochemical Analysis of Vitamin D Receptor and β-catenin Expression in Alopecia Areata and its relation to Wnt signalling.

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Immunohistochemical Analysis of Vitamin D Receptor and β-catenin Expression in Alopecia Areata and its relation to Wnt signalling.

Christina M. Morcos, Samar AM. Salem, Hoda A. Monieb.

Introduction: Alopecia areata is an autoimmune disease that presents as well-defined, usually rounded or oval patches of non-scarring hair loss. Some studies show that Patients with congenital mutations in the Vitamin D receptor gene have a marked decrease in Vitamin D receptor expression and present with diffuse alopecia of varying severity, caused by loss of hair-cycle regulation. The canonical Wnt signalling pathway has been found to play an important role in follicle development. Vitamin D receptor, lymphoid enhancer factor, and beta-catenin form a complex that activates the canonical Wnt pathway. The vitamin D receptor, independent of vitamin D, plays an important role in hair cycling, specifically anagen initiation. Vitamin D receptor is a Wnt effector that controls hair follicle differentiation and is directly involved in the regulation of the cWnt and hedgehog pathways during the hair cycle. The induction of cWnt and hedgehog target genes that characterizes early anagen and was found to be dramatically attenuated in Vitamin D receptor null mice.

Objective: This work aimed to study vitamin D receptor and β-catenin expression in alopecia areata patients and its relation to Wnt signalling Pathway.

Patients&Methods: This study included 65 subjects divided into two groups, the first group included 35 patients with Alopecia areata and the second control group included 30 healthy subjects. All patients were subjected to detailed history taking and examination to detect patterns, and severity (SALT score) in patients with alopecia aerata. Skin punch biopsies were taken from the lesional skin and stained with H & E to confirm the diagnosis and also immunohistochemically stained for Vitamin D receptor and β-catenin expression in patients with alopecia aerate. Skin biopsy from normal skin from healthy Subjects was also immune-stained by the three markers and then scoring of all the slides was done. The obtained data were tabulated and statistically analyzed.

Results: This study revealed that Vitamin D receptor and beta-catenin expression are significantly reduced not only in hair follicles but also in the epidermis of patients with Alopecia areata which could be related to the suppression of Wnt/β-catenin signals implying a role in of Vitamin D receptor in the pathogenesis of Alopecia areata.

Conclusion: There was a positive association between both Vitamin D receptor score with β-catenin staining intensity in Alopecia areata, confirming that decreased expression of Vitamin D receptor is related to the suppression of the Wnt signalling pathway in Alopecia areata. Targeting decreased Vitamin D receptor could be one of the therapeutic tools in the treatment of alopecia areata.

EA DV CONGRESS
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Abstract N°: 2604

Immunohistochemical Study of Vitamin D Receptor, β-catenin and Androgen receptor Expression in Androgenic Alopecia

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Immunohistochemical Study of Vitamin D Receptor, β-catenin and Androgen receptor Expression in Androgenic Alopecia

Christina M. Morcos, Samar AM. Salem, Hoda A. Monieb.

Introduction: Androgenetic alopecia is the most common hair loss disorder, affecting both men and women. It leads to progressive miniaturization of the hair follicle with a usually characteristic pattern of distribution in genetically predisposed men and women, there is progressive shortening of anagen, resulting in increased shedding of the short-lived hairs, while the follicles produce shorter, finer hairs. Androgens are major contributors of hair loss for the scalp.

The canonical Wnt signalling pathway has been found to play an important role in follicle development. Vitamin D receptor, lymphoid enhancer factor, and beta-catenin form a complex that activates the canonical Wnt pathway. The vitamin D receptor, independent of vitamin D, plays an important role in hair cycling, specifically anagen initiation. Vitamin D receptor is a Wnt effector that controls hair follicle differentiation and is directly involved in the regulation of the cWnt and hedgehog pathways during the hair cycle. The induction of cWnt and hedgehog target genes that characterizes early anagen and was found to be dramatically attenuated in vitamin D receptor null mice.

This work aimed to study vitamin D receptor, β-catenin and Androgen receptor expression in both androgenic alopecia and healthy subjects.

Materials & Methods: This study included 65 subjects divided into two groups, the first group included 35 patients with Androgenic Alopecia and the second control group included 30 healthy subjects. All patients were subjected to detailed history taking and examination to detect patterns, and severity: The Hamilton-Norwood's score in case of male pattern androgenic alopecia, and Ludwig's score in case of female androgenic alopecia.

Skin punch biopsy were taken from the lesional skin and stained with H & E to confirm the diagnosis and also immunohistochemically stained for vitamin D receptor, β-catenin, and androgen receptor expression in patients with androgenetic alopecia. Skin biopsy from normal skin was also immune-stained by the three markers and then scoring of all the slides were done. The obtained data was tabulated and statistically analyzed.

Results: In androgenic alopecia, Androgen receptor expression is elevated while vitamin D receptor expression is slightly decreased with minimal β-catenin change in comparison to healthy Subjects. No significant correlation was found between androgen receptor score and each of Vitamin D receptor and β-Catenin expression. These points to a key role of androgen receptor in the disease with a contribution of Vitamin D receptor reduction through pathways other than β-catenin affection.

Conclusion: Androgen receptor plays a key role in the pathogenesis of androgenic alopecia with a contribution of vitamin D receptor reduction through other pathways other than Wnt signalling. Further studies are needed to assess the possible mechanism and interaction between vitamin D receptor and Androgen receptor in the hair

follicles of the androgenic alopecia patients.

EA CONGRESS
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BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2619

Minoxidil Sulfotrasnferase Enzymatical Activity in Plants: A Novel Paradigm in Increasing Minoxidil Response in Androegentic Alopecia

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Introduction & Objectives:

Minoxidil is the only US FDA approved topical drug for the treatment of androgenetic alopecia. Minoxidil is effective in hair re-growth in 30-40% of patients and 50% of males. To exert its hair growing effect, minoxidil must be sulfonated in the scalp by the minoxidil sulfotransferase enzyme (SULT1A1). Low scalp SULT1A1 correlates with lack of minoxidil response; thus, supplementing the scalp SULT1A1 with naturally occurring minoxidil sulfotransferase enzymes could potentially improve treatment outcomes in androgenetic alopecia patients. In this study, we set to characterize the minoxidil sulfotransferase enzyme activity in various plants. From the 10 common botanical extracts we have studied, 7 exhibited significant activity toward minoxidil as a substrate; thus, providing a potential novel paradigm to increase minoxidil response with natural supplements. To the best of our knowledge, this is the first study to characterize naturally occurring minoxidil sulfotransferase enzymes in plants.

Materials & Methods:

To determine whether botanical extracts contain minoxidil sulfotransferase enzyme activity, different types of extracts were reacted with the test solution [Minoxidil Response Test (MRT) solution A total of 10 different plants were tested. The following plants were selected based on high flavonoid content as the final step in flavonoid synthesis requires sulfation: Broccoli Powder, Spinach Powder, Kale, Grape Seed, Olive Leaf Powder, Cabbage Powder, Cherry Juice, Red Cabbage, Cauliflower Power and Matcha Powder.

Results:

From the 10 common botanical extracts we studied, 7 exhibited significant activity toward minoxidil as a substrate. The botanical extracts with the highest OD at the lowest concentration correlated to an increased potency of the enzyme sulfotransferase. Three botanical extracts in particular, spinach powder, matcha powder, and broccoli powder, displayed significant activity at 2uL. At a 2uL concentration of extract, spinach powder displayed the highest OD of 13.668, following with matcha powder with at 11.935, and broccoli powder at 6.742. Olive leaf powder displayed significant activity, but to a lesser degree at 4uL, while olive leaf powder displayed activity at 8uL. The two extracts without significant activity towards minoxidil as a substrate included cherry juice and grape seed.

Conclusion:

As androgen alopecia (AGA) continues to burden those globally, developing novel therapeutics to improve hair growth is of key importance. Minoxidil, a potent vasodilator has proven to display therapeutic properties in terms of its effects on stimulating hair follicles. The enzyme, sulfotransferase is key to the drugs mechanism of action, as the drug needs to be converted to its sulfated form to carry out its mechanism of action. However, since individuals display variability in the activity of the minoxidil sulfotransferase enzyme (SULT1A1) in hair follicles, some patients will fail to respond to minoxidil therapy. Thus, the aim of our study was to assess the potential of botanical sulfotransferases in sulfating the xenobiotic minoxidil. The common botanical extracts studied included broccoli, spinach, kale, grape seed, olive leaf, cabbage, cherry juice, red cabbage, cauliflower, and matcha. Out of

these 10 extracts, 7 exhibited significant activity towards minoxidil as a substrate, with spinach displaying the greatest activity.

EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2645

Utilising Specific SNP Genotyping as a Tool for Personalised Androgenetic Alopecia Treatment: A Pathway towards Precision Medicine

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Introduction & Objectives: Androgenetic Alopecia (AGA) is a prevalent hair loss disorder, the molecular mechanisms of which remain partially understood. This study aimed to elucidate genotype-phenotype associations in AGA, with the aim of revealing the underlying molecular pathways and improving therapeutic strategies. We focused on the association of 26 single-nucleotide polymorphisms (SNPs) with AGA in a large patient cohort, probing potential correlations with the response to treatment options.

Materials & Methods: We analysed 26,608 anonymised medical records of patients genotyped for 26 SNPs on genes implicated in AGA development. The diagnoses covered a range of AGA grades or its absence. A systematic literature review helped provide a robust context for the identified SNPs and their associated genes, integrating the latest scientific findings into our research.

Results: Among the evaluated SNPs, those on genes associated with prostaglandin synthesis and dihydrotestosterone (DHT) conversion, particularly rs13283456 (PTGES2) and rs523349 (SRD5A2), emerged with the highest significance. Other SNPs showing notable correlation with AGA at the significance level of $p < 0.01$ were rs1800012 (COL1A1), rs4343 (ACE), rs10782665 (PTGFR), rs533116 (GPR44), rs545659 (GPR44), and rs12724719 (CRABP2). Altered pathways involving prostaglandin synthesis or receptors (PTGES2, PTGFR, and GPR44) could influence treatment response, including vasodilators or prostaglandin D2 production inhibitors like latanoprost, minoxidil, and cetirizine. Interestingly, the SRD5A2 gene, affecting levels and response to DHT, also surfaced as a relevant enzyme in AGA development, which aligns with the therapeutic use of 5-alpha reductase enzyme inhibitors.

Conclusion: Our investigation identified significant associations of SNPs with AGA, illuminating potential molecular pathways, and offering promising treatment targets. The prostaglandin-related pathways and the role of the SRD5A2 gene in DHT response emerged as valuable areas for further exploration. Future research should aim to fully elucidate AGA's specific genetic factors and molecular mechanisms, paving the way towards more effective, personalised therapeutic interventions for this widespread hair loss disorder.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2651

Fibrosing Occipital Alopecia in a middle-aged man: Case report

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Introduction & Objectives:

Lichen planopilaris (LPP) is a scarring alopecia characterized by lymphocytic inflammation. In recent years, extensive research has revealed an expanding spectrum of clinical presentations of this disease, resulting in frequent overlap among different clinical forms. One notable example is frontal fibrosing alopecia, a scarring alopecia predominantly affecting the frontal scalp area, commonly observed in postmenopausal women. Additionally, there is a less reported spectral of the condition knowed as fibrosing occipital alopecia, which primarily impacts the occipital area and tends to affect a younger population.

Materials & Methods:

Case report:

A 58-year-old male patient followed up in our departament with a history of hair density reduction over the past 12 years. He had no previous treatment history. Physical examination revealed scarring alopecia on the occipital region with hairline recession and decreased hair density on the frontoparietal region and vertex. The occipital scalp trichoscopy showed a band-like area of cicatricial alopecia with absence of follicular openings and loss of vellus hairs, as well as a few isolated solitary terminal hairs. Additionally, trichoscopy of the frontoparietal and vertex scalp showed yellow dots, interfollicular erythema, and perifollicular tubular scaling.

Results:

A biopsy from the frontoparietal area was performed, and the histopathology analise showed epidermis with mild acanthosis, dermis with mild chronic perifollicular inflammation, and fibrosis. These findings are suggestive of a lichen planopilaris spectrum disease. Additionally, direct immunofluorescence study showed the presence of moderate, discontinuous, homogeneous fluorescence in the ZMB.

Therapy with 400mg of daily oral hydroxycloroquine and capilar solution of bethametasone was started.

Conclusion:

Occipital fibrosing alopecia (OFA) is a variant of frontal fibrosing alopecia (FFA) , which is limited to the occipital scalp area. Many patients with OFA are unaware of the condition or may have other primary complaints. Diagnosing FFA-FOA can be challenging, and it is important for physicians to be familiar with the atypical presentation of the classic fibrosing alopecia patterns. A thorough examination of different areas, such as the back of the scalp, is recommended to ensure an accurate diagnosis.

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Abstract N°: 2676

Immunohistochemical Analysis of Vitamin D Receptor and β-catenin Expression in Alopecia Areata and its relation to Wnt signalling.

Christina Morcos*[1]

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Immunohistochemical Analysis of Vitamin D Receptor and β-catenin Expression in Alopecia Areata and its relation to Wnt signalling.

Christina M. Morcos, Hoda A. Monieb, Samar AM. Salem, Nermeen S. Youssef.

Introduction: Alopecia areata is an autoimmune disease that presents as well-defined, usually rounded or oval patches of non-scarring hair loss. Some studies show that Patients with congenital mutations in the Vitamin D receptor gene have a marked decrease in Vitamin D receptor expression and present with diffuse alopecia of varying severity, caused by loss of hair-cycle regulation. The canonical Wnt signalling pathway has been found to play an important role in follicle development. Vitamin D receptor, lymphoid enhancer factor, and beta-catenin form a complex that activates the canonical Wnt pathway. The vitamin D receptor, independent of vitamin D, plays an important role in hair cycling, specifically anagen initiation. Vitamin D receptor is a Wnt effector that controls hair follicle differentiation and is directly involved in the regulation of the cWnt and hedgehog pathways during the hair cycle. The induction of cWnt and hedgehog target genes that characterizes early anagen and was found to be dramatically attenuated in Vitamin D receptor null mice.

Objective: This work aimed to study vitamin D receptor and β-catenin expression in alopecia areata patients and its relation to Wnt signalling Pathway.

Patients&Methods: This study included 65 subjects divided into two groups, the first group included 35 patients with Alopecia areata and the second control group included 30 healthy subjects. All patients were subjected to detailed history taking and examination to detect patterns, and severity (SALT score) in patients with alopecia aerata. Skin punch biopsies were taken from the lesional skin and stained with H & E to confirm the diagnosis and also immunohistochemically stained for Vitamin D receptor and β-catenin expression in patients with alopecia aerate. Skin biopsy from normal skin from healthy Subjects was also immune-stained by the three markers and then scoring of all the slides was done. The obtained data were tabulated and statistically analyzed.

Results: This study revealed that Vitamin D receptor and beta-catenin expression are significantly reduced not only in hair follicles but also in the epidermis of patients with Alopecia areata which could be related to the suppression of Wnt/β-catenin signals implying a role in of Vitamin D receptor in the pathogenesis of Alopecia areata.

Conclusion: There was a positive association between both Vitamin D receptor score with β-catenin staining intensity in Alopecia areata, confirming that decreased expression of Vitamin D receptor is related to the suppression of the Wnt signalling pathway in Alopecia areata. Targeting decreased Vitamin D receptor could be one of the therapeutic tools in the treatment of alopecia areata.

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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2681

Efficacy of ritlecitinib in patients with alopecia areata by extent of hair loss at baseline: post hoc analysis of the phase 3 long-term ALLEGRO-LT study

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Introduction & Objectives: The oral JAK3/TEC family kinase inhibitor ritlecitinib demonstrated efficacy and safety in patients aged ≥12 years with alopecia areata (AA) with ≥50% hair loss in the ALLEGRO phase 2b/3 study. ALLEGRO-LT is an ongoing phase 3 open-label study investigating the long-term safety and efficacy of ritlecitinib in patients aged ≥12 years with AA with ≥25% hair loss. This post hoc analysis of ALLEGRO-LT evaluated the efficacy of ritlecitinib through Month 15 in patients with AA by the extent of scalp hair loss at baseline.

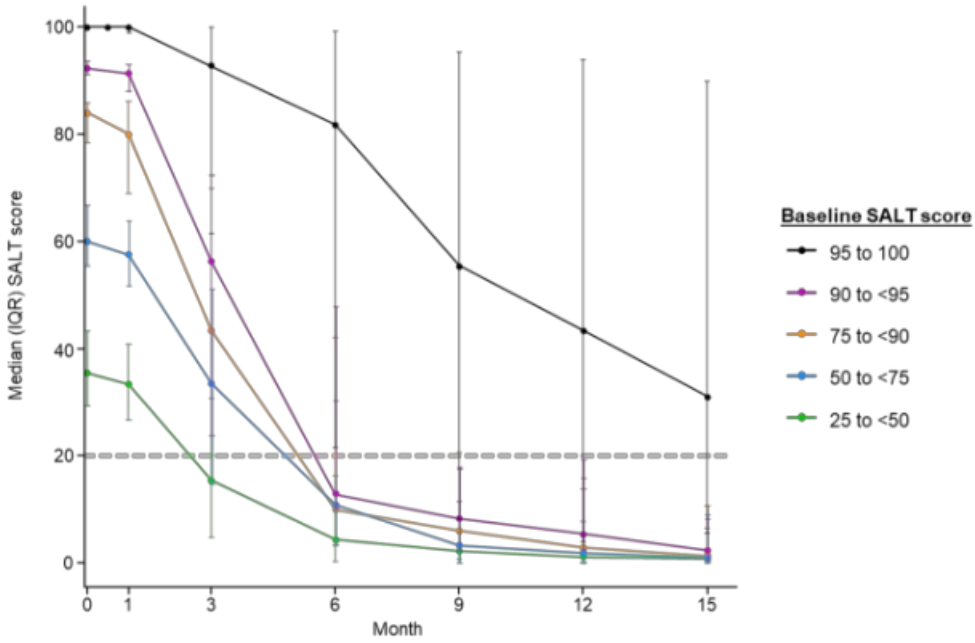
Materials & Methods: The open-label, multicenter, long-term ALLEGRO-LT study (NCT04006457) enrolled patients into two arms: (1) roll-over patients who had received study intervention in either the ALLEGRO phase 2a study (NCT02974868) or phase 2b/3 study (NCT03732807), and (2) *de novo* patients who were aged ≥12 years with AA with ≥25% scalp hair loss at baseline and had not participated in either study. This post hoc analysis only included patients in the *de novo* cohort. All patients received an initial 4-week loading dose of ritlecitinib 200 mg once-daily (QD) followed by ritlecitinib 50 mg QD. Outcomes included median Severity of Alopecia Tool (SALT) score over time and the proportions of patients with SALT score ≤20 (≤20% scalp hair loss) and ≤10 at Month 15. Patients were stratified by extent of scalp hair loss at baseline (measured by SALT score) as follows: 25 to <50, 50 to <75, 75 to <90, 90 to <95, and 95 to 100. Analyses were based on observed data.

Results: 1052 patients were enrolled in ALLEGRO-LT, of whom 447 patients received ritlecitinib in the*de novo* arm. Of the 447 *de novo* patients, 26.6% (n=119), 16.8% (n=75), 9.2% (n=41), 2.9% (n=13), and 44.5% (n=199) had baseline SALT scores 25 to <50, 50 to <75, 75 to <90, 90 to <95, and 95 to 100**,** respectively. Patients with baseline SALT score ≥95 generally had longer mean duration of AA episode (3.47 years) and disease duration (10.86 years) than patients with SALT score <50 at baseline (2.53 and 8.79 years, respectively). A greater proportion of patients with baseline SALT score <50 had active shedding at baseline (49.6%) vs patients with baseline SALT score ≥95 (11.6%). Across all groups, median SALT scores improved (decreased) from baseline through Month 15 (**Figure 1**). At Month 15, median SALT scores were 1.0, 1.2, 1.4, 2.4, and 30.9 for the 25 to <50, 50 to <75, 75 to <90, 90 to <95, and 95 to 100 groups, respectively. At Month 15, 93.0% (93/100), 87.7% (57/65), 88.2% (30/34), 83.3% (10/12), and 43.9% (68/155) of patients, respectively, achieved SALT scores ≤20, and 81.0% (81/100), 76.9% (50/65), 73.5% (25/34), 75.0% (9/12), and 33.5% (52/155) of patients, respectively, achieved SALT score ≤10.

Conclusion: After 15 months of ritlecitinib treatment, patients with less than 95% hair loss at baseline reached median SALT scores of <2.4, reflecting almost complete scalp hair regrowth. More refractory disease was seen in the subset of patients with extensive (≥95%) hair loss at baseline; however, over one third of these patients achieved clinically meaningful SALT response (SALT ≤20 and SALT ≤10) at Month 15. Overall, ritlecitinib was

efficacious in patients with AA with ≥25% hair loss including those with extensive hair loss at baseline.

Figure 1. Median SALT scores through Month 15 by baseline SALT score



IQR, interquartile range; SALT, Severity of Alopecia Tool.
Patients in ALLEGRO-LT had SALT score ≥25 at baseline.

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Abstract N°: 2686

Patterns of clinical response in patients with alopecia areata (AA) treated with ritlecitinib in the ALLEGRO phase 2b/3 and ongoing, phase 3, ALLEGRO-LT studies

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Introduction & Objectives: In the ALLEGRO phase 2b/3 study (NCT03732807), the oral JAK3/TEC family kinase inhibitor, ritlecitinib, demonstrated efficacy and safety over 48 weeks in patients aged ≥12 years with AA. This post-hoc analysis evaluated individual Severity of Alopecia Tool (SALT) score trajectories of patients with AA treated with ritlecitinib 50mg in the pivotal ALLEGRO phase 2b/3 study and the ongoing, open-label, phase 3, ALLEGRO-LT study (NCT04006457) with the goal of identifying long-term responder patterns.

Materials & Methods: This analysis included patients aged ≥12 years with AA with ≥50% hair loss who received ritlecitinib 50 mg once daily (QD) in ALLEGRO-2b/3 and who subsequently rolled-over into the phase 3 ALLEGRO-LT study where they continued to receive ritlecitinib 50 mg QD. SALT score trajectories were generated for individual patients up to Week 96, who were categorized as responders (early, middle, late), partial responders, non-responders, or relapsers. The 6 comprehensive and mutually exclusive categories were based on three time periods (early [Baseline-Week 24], middle [Week 25-Week 48], and late [Week 49-Week 96]) and achieving SALT score ≤20 response or 30% SALT score improvement from baseline. Definitions are provided in **Table 1**. Multivariable logistic regression was used to assess the impact of patient demographics and baseline disease characteristics on achieving response (by combining early, middle, and late responders) or non-response. Analyses are based on observed data.

Results: A total of 191 patients received ritlecitinib 50 mg QD in ALLEGRO-2b/3 and ALLEGRO-LT. Based on individual SALT score trajectories, 87 of these patients (45.5%) were responders, of whom 35 (18.3%) were early, 32 (16.8%) were middle, and 20 (10.5%) were late responders (**Table 1**). There were 24 (12.6%) partial responders, 56 (29.3%) non-responders, and 24 (12.6%) relapsers (**Table 1**). Female sex, younger age, shorter AA episode duration, and lower SALT score at baseline were independent factors associated with increased likelihood of treatment response vs non-response.

Conclusion: Based on SALT score trajectories and the definitions used in this post-hoc analysis, over 45% of ritlecitinib-treated patients were SALT score responders, most of whom achieved response within the first year of treatment. Approximately 10% of patients achieved response after >1 year of treatment suggesting that extended treatment may be beneficial for some patients. Evaluation of individual response profiles may help identify patient

and disease characteristics associated with treatment response.

Table 1. SALT score trajectories in patients receiving ritlecitinib 50 mg in ALLEGRO-2b/3 and ALLEGRO-LT

Category	Definition	Patients, n/N (%)
Early responder	Patients with SALT score ≤20 (≤20% scalp hair loss) at Weeks 24, 48, and 96*	35/191 (18.3)
Middle responder	Patients who did not achieve SALT score ≤20 by Week 24, but did so by Week 48 that was maintained at Week 96*	32/191 (16.8)
Late responder	Patients who did not achieve SALT score ≤20 by Week 48, but did so by Week 96*	20/191 (10.5)
Partial responder	Patients with SALT score >20 at Weeks 24, 48, and 96, who achieved 30% improvement in SALT score from baseline that was maintained thereafter	24/191 (12.6)
Relapser	Patients with SALT score >20, who achieved 30% improvement in SALT score that was not maintained	24/191 (12.6)
Non-responder	Patients with SALT score >20, who never achieved 30% improvement in SALT score from baseline	56/191 (29.3)

SALT, Severity of Alopecia Tool.
*Or until the last visit with available SALT score data.

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Abstract N°: 2700

A comparative randomized clinical study assessing the effect of a 1% selenium disulfide-based shampoo versus 2% ketoconazole shampoo in subjects presenting with moderate to severe scalp seborrheic dermatitis

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Introduction & objectives: Scalp seborrheic dermatitis (SSD) greatly impacts the quality of life. In this study, we aim to evaluate both the efficacy and the effect on quality of life of a shampoo (Shampoo A) containing 1% Selenium disulfide and 1% salicylic acid in patients with moderate to severe seborrheic dermatitis, compared to a reference shampoo containing 2% ketoconazole (Shampoo B).

Material and Methods: This multi-centric double-blinded randomized study was conducted on 2 parallel groups of subjects presenting with moderate to severe seborrheic dermatitis (SSSD score had to be >6).** Subjects were monitored on day 3, 7, 14 and 28. Before D0, a wash-out period of 3 weeks was required. The products were randomly allocated to the subjects, applied on scalp and hair 3 times a week for 2 minutes for Shampoo A and 2 times a week for 5-10 minutes for Shampoo B as per its label's usage recommendation. The clinical examination of the scalp consisted of the Symptom Scale of Seborrheic Dermatitis assessment (SSSD), evaluations of total scales (sum of adherent and non-adherent), erythema, pruritus, and greasiness. Self-evaluations included a Quality-of-Life questionnaire (QoL Scalpdex), discomfort evaluations and self-assessment of hair quality. The efficacy of Shampoo A was compared to Shampoo B using an analysis of covariance on the change from baseline as response variable.

Results: The panel consisted of 64 male and female subjects of European, Hispanic, Asian, and African origins aged between 18 and 64 years, covering all different hair types.** For both groups, a significant improvement was observed as early as from D3 in terms of SSSD. This improvement was very significant at D28 (p-value$<$0.001 for both groups; -71% and -69% for Shampoo A and B). Decrease of total scales was also significant at D28 (p-value$<$0.001 for both groups; -75% and -68% for Shampoo A and B). After 28 days, all the subjects presented mild severity of SSD.** Erythema levels were significantly reduced from first use for both Shampoo A and B, while improvements in greasiness from D7 onwards were only obvious for Shampoo A.** Moreover, subjects from both treatment groups reported significant improvements in itching, stinging, and burning sensations. Significant improvements for itching were achieved from D3 for Shampoo A and from D7 for Shampoo B. Quality-of-life assessments showed significant improvements for Shampoo A as from D7 and as from D14 for Shampoo B. No significant difference was found between the treatments.

Respondents from both treatment groups rated the various aspects of the hair (hair was soft, glossy, easy to disentangle, voluminous and scalp was less sensitive). Favorable responses ranged between 67.6% (easy to disentangle) and 91.2% (less sensitive scalp) for A, and between 51.7% (gives volume to hair) and 79.3% (less sensitive scalp) for B. Overall, both treatments were very well tolerated without any significant side effects.

Conclusion: Shampoo A, composed of 1% selenium disulfide and 1% salicylic acid, is well tolerated and has been shown to be a reliable alternative to a 2% ketoconazole shampoo (B), in terms of efficacy, ease of use and ability to quickly improve itching and quality of life in patients suffering from moderate to severe scalp seborrheic dermatitis.

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Abstract N°: 2760

Efficacy of oral retinoids as a maintenance therapy in cicatricial alopecia: a retrospective study

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Introduction & Objectives:

Cicatricial alopecias (CA) comprise a diverse group of scalp disorders where the hair follicles are permanently destroyed with unknown etiology. The main treatment goal is to reduce the ongoing inflammation and prevent further hair loss using various treatment modalities including corticosteroids, immunosuppressants, and antimicrobials. We investigated the efficacy of oral retinoids as a maintenance therapy for various types of CA.

Materials & Methods:

This retrospective analysis included all biopsy proven cicatricial alopecia patients aged ≥18 years treated with either isotretinoin, or alitretinoin as maintenance therapy from January 2015 to December 2022 in our institution.

Results:

Total of 75 patients were included in the study. Of the 75 patients, 60 patients were diagnosed with folliculitis decalvans, 5 patients with frontal fibrosing alopecia, 5 patients with pseudopelade of Brocq, 4 patients with dissecting cellulitis of scalp, and 1 patient with discoid lupus erythematosus. The mean treatment period was 17.41 ± 19.23 months, and the mean time period of oral retinoid initiation was 3.47 ± 9.04 months after the diagnosis. For the initial bridging therapy, cephalexin was used in 58 patients, and systemic corticosteroid was used in 17 patients. Complete response (absence of active lesions) was seen in 54/75 patients, where partial response (persistence of some active lesions), and no response were seen in 18/75, and 3/75, respectively. Three patients exhibited disease progression, and the most common treatment emergent adverse event was xerosis.

Conclusion:

Oral retinoids demonstrated effectiveness as a maintenance therapy in CA, and when active inflammation is halted after the use of antibiotics and/or systemic corticosteroids, retinoids can provide a reliable treatment choice as a maintenance therapy.

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Abstract N°: 2766

Real-world effectiveness and safety of baricitinib in patients with alopecia areata

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Introduction & Objectives:

Oral Janus kinase (JAK) inhibitor baricitinib has demonstrated its effectiveness in reversing hair loss in alopecia areata (AA) in several pivotal clinical trials. Recently, the oral selective reversible JAK1/JAK2 inhibitor, baricitinib has been approved in the United States and South Korea for the treatment of severe AA in adults. We investigated the real-world effectiveness of baricitinib in patients diagnosed with AA.

Materials & Methods:

This retrospective analysis included all patients aged ≥18 years diagnosed with AA treated with baricitinib 4 mg for a minimum of 6 months from January 2019 to January 2023 in our institution. The efficacy was evaluated using the severity of alopecia tool (SALT), and any treatment-emergent adverse events were recorded.

Results:

Total of 21 patients diagnosed with ≥6-month history of severe AA (SALT ≥50) at the time of baricitinib introduction were analyzed. Mean baseline SALT score was 90.78±18.57, where 9 patients were diagnosed with alopecia totalis, and 7 patients were diagnosed with alopecia universalis. Mean treatment period with baricitinib was 13.61±8.50 months, where any form of hair growth was observed in 18/21 (85.71%) patients. The mean time for notable hair growth was approximately 3.22 months after treatment. Of the 21 patients, the proportion of patients achieving SALT score ≤ 50 and/or SALT score ≤ 20 at 6 months after baricitinib was 38.10% (8/21), and 23.81% (5/21), respectively. The proportion of patients achieving SALT ≤ 20 gradually increased over time, where 61.54% (8/13) patients achieved SALT ≤ 20 among those who received baricitinib for 12 months. Regarding the safety of baricitinib, a single case of eczema herpeticum developed during treatment who had atopic dermatitis as a comorbidity. The remaining patients presented no treatment-emergent adverse events, with normal laboratory findings including liver enzymes and creatinine kinase, and platelet counts.

Conclusion:

Baricitinib 4 mg demonstrated efficacy and safety in AA, even in the most severe forms. We report the efficacy of baricitinib in treating severe AA in a real-world setting.

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Abstract N°: 2859

Emerging Treatment Options in Alopecia Areata: Finally, a Promising Outcome?

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**Emerging Treatment Options in Alopecia Areata: Finally, a Promising Outcome?

Introduction & Objectives:**

Alopecia areata is an autoimmune dermatological condition which affects 2% of the general population. It results in temporary hair loss without scarring and it can manifest as either alopecia totalis (complete scalp hair loss) or alopecia universalis (total body hair loss).

Multiple treatment options for alopecia have emerged over time with varying levels of efficacy, like corticosteroids (topical, intralesional and systemic), contact immunotherapy, photochemotherapy, minoxidil, anthralin and calcineurin inhibitors. Despite these available treatment options, it has been challenging to medically treat this disease due to ineffective outcomes. As a result, the quality of life of patients with alopecia has been significantly deteriorating due to the negative mental impact they have experienced.

This abstract aims to investigate the novel therapeutic options used for the management of alopecia which have so far exhibited some satisfying outcomes in hair growth.

Materials & Methods:

Relevant PubMed articles published in the last 10 years were found by using keywords like “Alopecia areata”, “Treatment options”, “Advancements”, “JAK inhibitors”, “Baricitinib” and “Platelet-rich plasma”. Each article was analysed meticulously to understand the efficacy of the modern treatment options available to treat alopecia.

Results: Alopecia management has seen some recent breakthroughs with newer treatment advancements such as Janus kinase (JAK) inhibitors, platelet rich plasma injection, and stem cell therapy.

Amongst these, platelet-rich plasma has shown to be a low-risk option for patients dealing with alopecia; however, there is a lack of guidance as to the number of sessions required to adequately promote hair growth.

To add to the list of achievements, the Food and Drug Administration (FDA) approved JAK inhibitor baricitinib in June 2022, making it the first ever treatment option for alopecia areata. Large clinical trials showed its efficacy in blocking cytokines responsible for autoimmune reactions causing hair loss in alopecia. The BRAVE-AA1 and BRAVE-AA2 phase 3 trials demonstrated oral baricitinib’s superiority over placebo in regrowing hair at thirty-six weeks. In addition, two meta-analyses supported the efficacy of baricitnib in alopecia.

Conclusion:

To conclude, the use of baricitinib in alopecia represents a potentially promising avenue for the treatment of this challenging condition, evidenced by some patients experiencing significant hair regrowth after treatment. However, further research is warranted to explore its full potential, side effects and long-term efficacy of this approach.

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Abstract N°: 2863

Clinical characteristics of nail lichen planus

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Introduction & Objectives:

Nail involvement is a common presentation of disseminated lichen planus, affecting up to 10% of patients. It may be the only manifestation of the disease. The management of this condition is usually disappointing, and the details of the long-term prognosis are poor. The aim of our study is to describe the clinical features, therapeutic response, and follow-up of a series of 62 patients with nail lichen planus

Materials & Methods:

A retrospective study was conducted in the dermatology department from January 2006 to December 2022, including all cases of nail lichen planus.

Results:

Sixty-two patients were included: thirty-five women and twenty-seven men. Fifteen patients (24%) were children. The mean age was 33 years, with a range of 8 to 65 years. The mean duration of the disease was 32 months (2 months to 120 months). Involvement of all nails was observed in 25 (40%) cases. 48 patients (77%) had matrix involvement. Different clinical alterations of the nails were observed: trachyonychia in 35 cases (56%), onycholysis in 31 cases (50%), subungual hyperkeratosis in 31 cases (50%), onychorrhexis in 20 cases (32%), pachyonychia in 26 cases (42%), perionyxis in 10 cases (16%), and xanthonychia in 11 cases (18%). Eight patients (12%) had severe scarring with pterygium or anonychia. Intramuscular corticosteroid therapy was used in most patients (79%); a regression of nail lichen planus was observed after the third injection.

Conclusion:

Lichen planus is a benign, chronic, mucocutaneous disorder that affects the skin, mucosae, and nails. Nail lichen planus is more common in adults than in children, and it mostly affects the fingernails rather than the toenails. The many nail abnormalities found in nail lichen planus depend on their pathologic location: the nail matrix or the nail bed. The disease may lead to permanent disfigurement, which has both functional and psychological consequences. Early diagnosis and prompt treatment are also important to prevent the development of pterygium. Nail lichen planus can sometimes be difficult to diagnose and differentiate from other nail disorders. This is especially the case in patients without other mucocutaneous findings. A literature review of the clinical characteristics of patients with nail lichen planus revealed that the common findings were longitudinal ridging and fissuring, nail plate thinning, and trachyonychia. Nail lichen planus is mostly recalcitrant to treatment and thus challenging to cure. Treatment outcomes are unpredictable. Systemic corticosteroids are the first-line treatment, and must be started early to avoid irreversible anonychia. Our series highlights the frequency of pediatric forms and scarring sequelae, which are often difficult to accept aesthetically. An early diagnosis allowing the initiation of treatment, especially in children, could perhaps limit this risk of sequelae.

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Abstract N°: 2910

Efficacy of pulse methylprednisolone therapy in combination with methotrexate and light emitting diode in the treatment of alopecia universalis

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Introduction & Objectives:

Alopecia areata is a chronic and inflammatory disease that presents with unpredictable rhythm and severity. Its treatment is difficult, especially in extensive forms. The aim of our study is to evaluate the efficacy of methylprednisolone (MP) pulse therapy, combined with methotrexate (MTX) and light-emitting diode (LED), in the treatment of alopecia universalis.

Materials & Methods:

A prospective descriptive study was conducted between January 2021 and June 2022 including fifteen patients with alopecia universalis (AU), who subsequently received intravenous pulse MP 500mg/d for 3 consecutive days, once a month for at least 3 successive months, combined with MTX at a dose of 15 to 20 mg per week and LED therapy at 3 sessions per week. Efficacy was assessed by clinical, dermoscopic, and photographic evaluation, according to SALT score.

Results:

Fifteen patients with AU were included. The mean age was 35 years with a range of 14 and 50 years, 4 men and 11 women. Thyroiditis was noted in 5 cases. A history of atopy was observed in 8 patients. The mean duration of the disease was 5.7 years with a range of 6 months to 17 years. A previous local treatment was prescribed in all patients with poor therapeutic response. Dermoscopy revealed the following signs: black dots, yellow dots, tapering hair, coudability hair, short vellus hair and pigtail hair. Nail involvement was found in 9 patients and was presented by trachyonychia, onycholysis and red lunula. At 3 months, 5 patients had a complete response, 8 patients had partial regrowth. Therapeutic failure was noted in only 2 patients.

Conclusion:

The management of alopecia areata remains challenging despite current therapeutic advances, due to the unpredictable course of the disease and the lack of high-quality therapeutic trials. The efficacy of pulse MP therapy has been reported in patchy alopecia areata with less efficacy in AU and ophiasis alopecia. Through this study, we were able to obtain a good response in most patients with AU, despite the simultaneous presence of several poor prognostic factors, which are the long duration of evolution, associated dysimmune disorders and nail involvement. The limitations of the study are represented by the small sample size and the unpredictable course of the disease. A prospective cohort study with a longer-term follow-up could be interesting to evaluate the contribution of these treatments in the management of AU.

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Abstract N°: 2921

surgical management of acne keloidalis nuchae lesions

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Introduction & Objectives:

Acne keloidalis nuchae lesion is a chronic scarring folliculitis, most commonly affecting young adult men.

Surgical approaches include excision with primary closure or with healing by secondary intention or skin grafting.

We present a case with a large AKN lesion located on occipital scalp requiring extensive surgical excision.

Case report:

A 32 year–old male patient with a history of AKN treated with oral doxyclines and intralesional injections of triancinolone without significant improvement. He presented at 9 months follow-up with a firm thickened scarring plaque about 13 x 3 cm in diameter on occipital scalp with multiple ingrowing hairs.

After discussing treatment options with the patient, he was scheduled for excision.

Posterior scalp and neck were shaved. The surrounding area was infiltrated with 1% lidocaine containing epinephrine. The incision was carried down to the level of subcutaneous tissue in the scalp. Hemostasis was achieved with electrocautery and 3-0 vicryl suture.

Dressing with sterile gauze and vaseline was applied postoperatively. Amoxicillin-ac clavulanic was prescribed for 7 days.

Discussion:

Surgical excision was described in 8 studies in the litterature. Of the 41 patients treated by surgical excision that were included in this review, 17 had mild recurrence.

Additionnaly, scarring is the major concern with a surgical approach, though use of a horizontale ellipse encompassing the posterior hairline resulted in good to excellent cosmesis by allowing the surgical scar to be hidden in the newly formed hairline.

Conclusion:

Surgical excision remains the most effective modality of management. Complete removal of follicles leads to least chance of recurrence.

Larger-scaled randomized controlled trials with long term follow-up are needed to assess the efficiency of this treatment.

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Abstract N°: 2922

Frontal Fibrosing Alopecia in Pseudo-Cocarde Form: 2 Cases

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Introduction:

Frontal fibrosing alopecia (FFA) is a variant of lichen planopilaris (LPP) that results in cicatricial alopecia. The pseudo-cicatricial form is an unusual subtype of FFA. We report two new cases of this subtype.

Case report 1:

A 46-year-old female patient with no medical history, presented with a 10-year history of hairline recession and predominantly frontal alopecic patches. On clinical examination, she had a frontotemporal hairline recession, pseudo-cocarde alopecic patches on both temples, and loss of the tail of the eyebrows. Trichoscopy revealed hyperpigmented and white areas, perifollicular scaling, mild perifollicular hyperkeratosis, and a sliding sheath. A skin biopsy guided by dermoscopy confirmed the diagnosis of FFA in its lichen planopilaris variant. The immune-related blood tests were normal. The patient was treated with topical corticosteroids, tacrolimus, hydroxychloroquine, and 2% minoxidil, which resulted in good improvement.

Case report 2:

A 33-year-old female patient with no notable medical history presented with bi-temporal alopecic patches that had been evolving for 2 years. On clinical examination, she had bi-temporal pseudo-cocarde alopecic patches without any other associated signs. Trichoscopy revealed perifollicular erythema, moderate perifollicular hyperkeratosis, a sliding sheath, and linear vessels. A skin biopsy confirmed the diagnosis of LPP. She was treated with tetracyclines, topical corticosteroids, tacrolimus, and 2% minoxidil, which resulted in good improvement and stabilization of her hair loss.

Discussion:

Frontal fibrosing alopecia (FFA) is a scarring alopecia that typically affects postmenopausal women. However, there is an increasing incidence of FFA in premenopausal women, especially in its atypical variants. Pseudo-cocarde FFA is a rare, atypical variant that is characterized by oval, shiny, pale alopecic patches on both temples, along with hairline recession and eyebrow loss. The diagnosis is guided by trichoscopy and biopsy. It is important to be aware of this atypical variant to establish early diagnosis and treatment to prevent progression to a cicatricial stage.

EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2994

The impact of Baricitinib therapy on Alopecia Areata

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Introduction & Objectives:

Alopecia areata (AA) is an autoimmune disease of the hair follicle with a transient, non-scarring, more or less widespread body hair loss. Psychological stress factors also seem to be involved in the multifactorial etiopathogenesis both possible contributing cause and consequence of the disease. Indeed it's often found a negative impact of AA on daily habits, mood, sleep quality, work performance and interpersonal relationships in both patients and caregivers.

In some months a new drug of the jak-inhibitors' group, Baricitinib, has been available for AA alongside the more traditional treatments.

The primary aim of our single-center prospective observational study was to evaluate the impact of the disease on the QoL of patients and their caregivers, using the PRISM, DLQI, HADS, Skindex-16, WPAI, PSQI, FDLQI and FROM-16 scores, during a 12-weeks of Baricitinib treatment. Secondary objectives were: the assessment of the treatment's clinical efficacy, using SALT score at monthly controls, and the evaluation of the pharmacological tolerability.

Materials & Methods:

The statistical analysis consisted of calculation of median, IQR and the Wilcoxon signed-rank test.

The study involved four adult patients diagnosed with Alopecia Universalis for whom the Ethics Committee approved the use of Baricitinib. The assessment of the pharmacological tolerability has been realized by monitoring laboratory markers: total cholesterol, LDL cholesterol, HDL cholesterol, triglycerides, FT4, TSH, GOT, GPT, creatinine, homocysteinemia, ferritin levels and, CPK levels.

Results:

After 12 weeks of therapy, the partial results at the T1 control showed a global improvement, although not statistically significant, of the negative impact of AA on all QoL domains investigated by the tests, both in patients and in caregivers. This psychological benefit was observed in parallel with a fast clinical benefit, recorded by SALT scores equal to S2 (<50% hair loss) in 75% of the sample at T1, with an irregular, bilateral regrowth of eyebrows, eyelashes, pubic, underarm and beard hair. Although these results, one patient was still unresponsive at T1. The only ADR reported was a single case of acne lesions. No statistically significant differences were found in laboratory indices.

Conclusion:

Despite the limitations of the study, such as the short observation period and the limited sample size, our research confirmed the negative impact of AA on the HRQoL of patients and caregivers and demonstrated that a

psychological benefit could be obtained at the same time of clinical efficacy due to Baricitinib treatment. The completion of the study and future investigations are suggest to increase the statistical significance of these results and to study in depth correlation between AA and psychological distress.

EA DV CONGRESS
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Abstract N°: 3014

Fractional carbon dioxide laser for releasing the arrested nail growth: Untrapping the trap of two patients

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Introduction:

The nail plate constitutes the hard surface on the dorsal aspect of each distal phalanx and protects the distal phalanx from injury. Traumatic nail disorders constitute one of the most common, but under-recognized diseases of the nail. The source of the injury could be accidental, occupational, sports-related, or self-inflicted. The inciting trauma could be sudden, acute, easily identifiable, or it could be an insidious, chronic, and repetitive microtrauma, often difficult to delineate. A multitude of factors are involved in the pathogenesis underscoring the importance of further investigation. Nail matrix arrest has been hypothesized as one of the causative factors: however, some inciting events do not include the proximal nail fold, which contains the nail matrix. The treatment of arrested nail growth commonly implies conservative methods, which could leave the nails dystrophic and arrested for months. Studies describing the interventions for such cases are scarce. We herein treated two cases of arrested nail growth following trauma by fractional CO2 laser, which led to resuming normal nail growth and morphology.

Cases description:

A 35-year-old male patient presented to our clinic with a complaint of the arrest of right index fingernail growth. He has a history of acute traumatic event for two-months duration. Examination demonstrates a trapped fingernail by the lateral nail folds and hyponychium. Fungal nail scraping for culture and sensitivity returned negative. The affected fingernail was treated using fractional CO2 laser, two times, with a minimum of 4 weeks between treatments. Treatment was performed using 80 mJ pulse energy and 150 spots/cm2 density with a static mode. The affected nail received 2 passes per treatment. The entire nail plate was covered including 3 mm normal-appearing areas around it.

Another 53-year-old male patient, presented with complaints of left middle fingernail disfigurement after sustaining an acute injury. His past medical history is significant for diabetes mellitus, complicated by peripheral neuropathy. His fingernail growth is arrested since the injury. Examination demonstrates a dystrophic fingernail with encroaching of the nail folds. Accordingly, we used a fractional CO2 laser with the same parameters as the previous patient.

The treatment effectiveness was assessed one month after the last visit by comparing patients' images. Two dermatologists independently assessed all images for morphology and nail growth rate (average fingernail growth rate; 3.47 mm/ month). According to the opinion of the independent dermatologists, the affected fingernails of the two patients restored normal morphology and resumed normal nail growth following treatment.

Discussion

Nail matrix arrest has been commonly reported after a variety of systemic illnesses or drug exposures and may result in a wide range of nail dystrophies. Our patients sustained two different and unclear injuries to their nails; however, both injuries resulted in growth nail arrest. The mechanism of such nail matrix changes in this setting remains unclear, and the significance and extent of this association require further elucidation. Fractional CO2 has been used widely in the treatment of onychomycosis, which facilitates antifungal delivery and aids in heating the fungal elements with their subsequent death. We herein added another utility of this laser in the treatment of nail

disorders, paving the way for further investigations.

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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 3023

Risk of new-onset comorbidities among patients with alopecia areata in the United States: A large scale population-based study

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Introduction & Objectives:

Alopecia areata (AA) is a chronic autoimmune disease characterized by sudden inflammatory non-scarring hair loss. Although the link between AA and other comorbidities has been established, there is limited data on the incidence of new-onset comorbidities in patients newly diagnosed with AA. This study evaluated the prevalence and incidence of autoimmune and psychiatric comorbidities among patients diagnosed with AA, compared with matched controls without AA, in the United States.

Materials & Methods:

This was a retrospective cohort analysis using data from Merative MarketScan® from 01/2007–12/2021. Patients ≥12–64 years old with continuous enrollment for ≥12 months before and after the index date (baseline and follow-up periods, respectively) were included. Patients diagnosed with AA (from one inpatient or two outpatient claims) were matched with controls (1:4) with no diagnosis of AA in whole study period, based on age, sex, and geographic location. The date of the first AA diagnosis was the index date for patients with AA. Index dates were randomly assigned from 01/2008–12/2020 for controls. Patients and matched controls with a diagnosis of AA or diagnoses of skin disorders, autoimmune diseases, or psychiatric diseases during pre-index baseline period were excluded. Adjusted hazard ratios (HRs) and confidence intervals (CIs) of comorbidity incidence in the follow-up period were estimated by Cox proportional hazards regressions controlling for age, sex, baseline obesity and Charlson Comorbidity Index, and region.

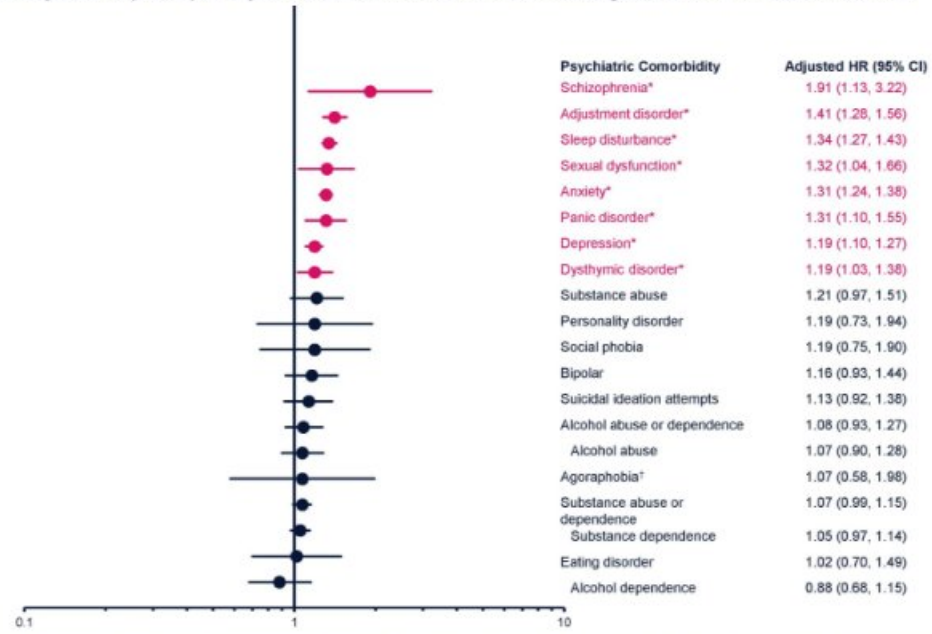
Results:

After matching, there were 15,633 and 62,532 patients in the AA and control groups, respectively. The incidence of any psychiatric disease was 26.1% (n=4080) in patients with AA versus 20.9% (n=13,042) in controls. For any autoimmune comorbidity, the incidence was 12.4% (n=1,930) in patients with AA versus 4.8% (n=2,987) in matched controls. Having a diagnosis of AA was associated with a significantly higher incidence of several psychiatric comorbidities including schizophrenia (HR 1.91, 95% CI 1.13–3.22), adjustment disorder (HR 1.41, 95% CI 1.28–1.56), sleep disturbance (HR 1.34, 95% CI 1.27–1.43), sexual dysfunction (HR 1.32, 95% CI 1.04–1.66), and anxiety (HR 1.31, 95% CI 1.24–1.38), compared with matched controls (all $p<0.05$; **Figure 1**). Patients with AA had a significantly higher incidence of several autoimmune comorbidities including systemic lupus erythematosus (HR 5.61, 95% CI 4.45–7.07), linear morphea (HR 5.13, 95% CI 3.36–7.84), atopic dermatitis (HR 4.57, 95% CI 4.08–5.11), Sjögren's syndrome (HR 3.97, 95% CI 2.82–5.61), and vitiligo (HR 3.82, 95% CI 3.24–4.50), compared with matched controls (all $p<0.01$; **Figure 2**).

Conclusion:

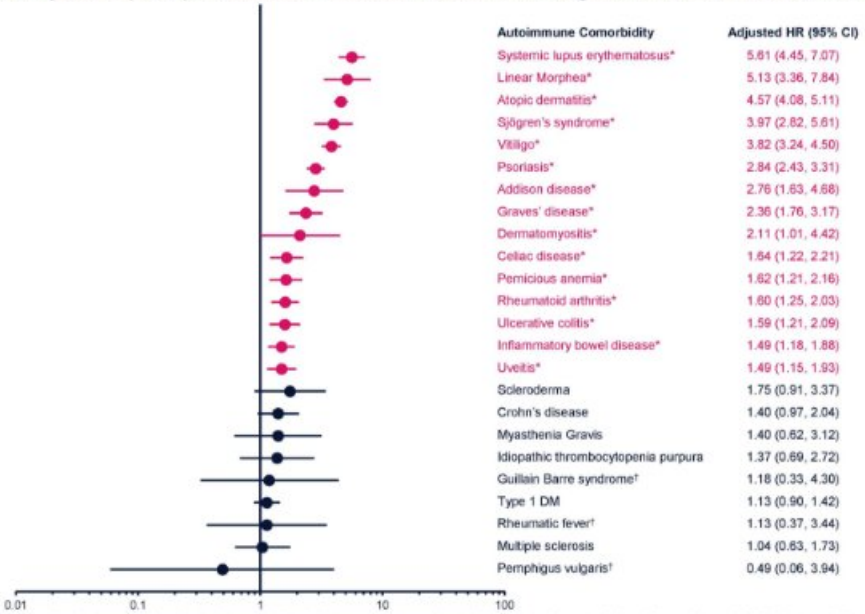
Having a diagnosis of AA was associated with a higher incidence of several new-onset psychiatric and autoimmune comorbidities, when compared with matched controls. Comorbidities in patients diagnosed with AA could further exacerbate the overall economic and disease burden, and its impact on health-related quality of life.

Figure 1. Adjusted HR (95% CI) for Psychiatric Comorbidities in Patients With a Diagnosis of AA versus Matched Controls



*p<0.05. †Sample size too small for adjusted Cox model, univariate regression used instead. AA, alopecia areata; CI, confidence interval; HR, hazard ratio

Figure 2. Adjusted HR (95% CI) for Autoimmune Comorbidities in Patients With a Diagnosis of AA versus Matched Controls



*p<0.05. †Sample size too small for adjusted Cox model, univariate regression used instead. AA, alopecia areata; CI, confidence interval; DM, diabetes mellitus; HR, hazard ratio.

EA DV CONGRESS
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Abstract N°: 3024

Treatment Patterns and Switch Rates in the First 12 Months Post–Alopecia Areata Diagnosis

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Introduction & Objectives:

Alopecia areata (AA) is an incompletely understood autoimmune disease characterised by inflammatory, nonscarring hair loss that can affect various parts of the body. Treatment options were mostly limited to topical and systemic corticosteroids until the approval of a Janus kinase inhibitor in 2022. This study sought to determine treatment patterns, including therapies used and 12-month treatment switch rates, among patients newly diagnosed with AA in the US.

Materials & Methods:

This study utilised data on US patients newly diagnosed with AA from the Merative MarketScan® Commercial Claims and Encounters database between 01/2017—12/2021. Eligible patients were aged ≥12 years, had ≥1 inpatient or ≥2 outpatient claims with a diagnosis of AA (International Classification of Diseases, 9th/10th Revision, Clinical Modification [ICD-9/10-CM]: 704.01/L63.x) and ≥12-month continuous enrolment pre- and post-index date (ie, date of the first AA diagnosis). Patients aged ≥65 years, with an AA diagnosis or evidence of AA-related treatments during the pre-index period were excluded. Treatments used as first-line therapies, were assessed in the 12-month post-index period. Among patients who switched therapies within the 12-month follow-up period, use of second-line therapies was also assessed. Data are reported via Sankey diagrams to demonstrate the magnitude and pattern of treatments. Treatment patterns were also assessed in a subgroup of patients with moderate to severe disease, identified with a diagnosis code for alopecia universalis (ICD-10-CM: L63.1) or alopecia totalis (ICD-10-CM: L63.0) or prescriptions for any immunomodulators, oral steroids, systemic non-steroids, or phototherapy in the 12 months post-index date period.

Results:

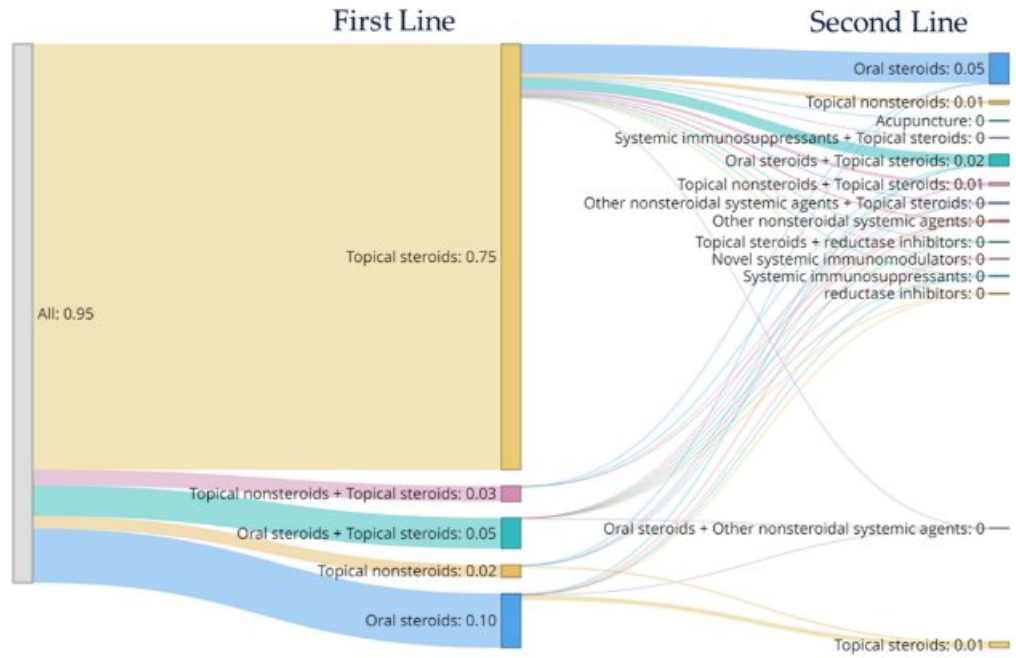
In total, 5,885 patients (61.1%; Total sample N=9,369) newly diagnosed with AA received treatment during the 12-month follow-up period. The most common first line treatment was topical steroids (74.9%); only 9.5% received first-line oral steroids (**Figure 1**). Only 5.4% of patients received both topical and oral steroids as a first-line treatment, with <3% receiving topical nonsteroidal agents with or without topical steroids. Overall, few patients switched to a second-line therapy (N=782) during the 12-month follow-up period. Among those who did, 5.7% (N=334) received oral steroid use, while 2.1% (N=123) received concomitant oral and topical steroids. There were 1,727 (85.1%; total sample N=2,030) patients with moderate to severe AA who initiated treatment during the 12-month follow-up period (**Figure 2**). Of these patients, approximately one third each initiated first-line topical or oral steroids, with 18.4% initiating both. Among patients who switched (N=672), 19% (N=325) received oral steroids, and 7.0% (N=121) received both oral and topical steroids, as a second-line therapy.

Conclusion:

These data demonstrate that, among patients newly diagnosed with AA, regardless of disease severity, the most common first-line treatments are topical or oral steroids. Overall, few patients switched therapies in the first year; however, among those who did, oral steroids with or without topical steroids were the most common second-line treatments. This study assessed treatment patterns prior to the approval of baricitinib; further studies are needed

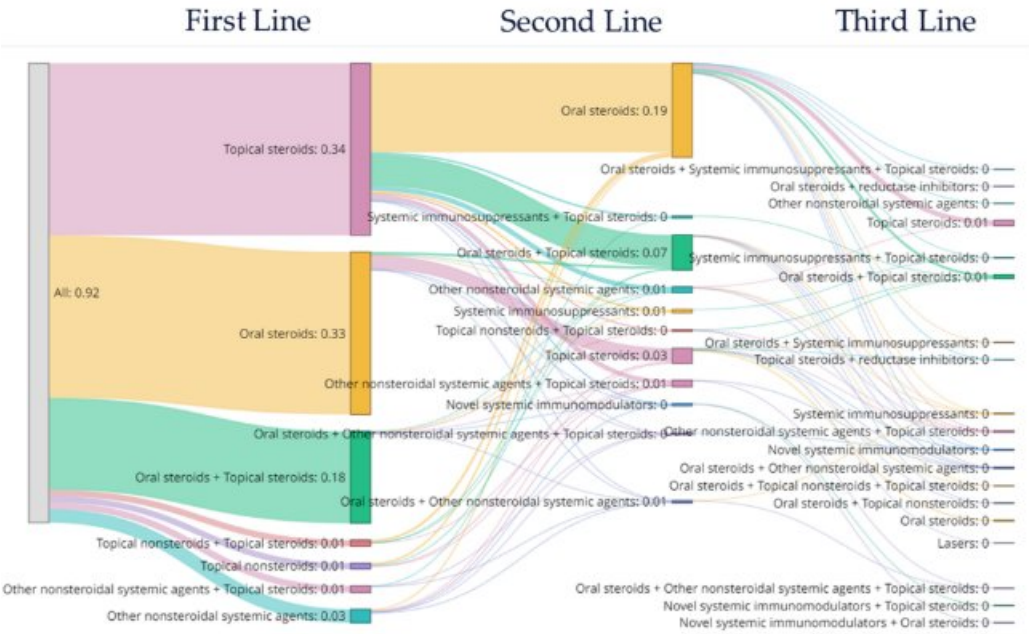
to determine how recently approved therapies may affect current treatment patterns.

Figure 1: Treatment patterns among all patients newly diagnosed with AA



AA, alopecia areata.

Figure 2: Treatment patterns among patients newly diagnosed with moderate to severe AA



AA, alopecia areata.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 3112

Effectiveness of topical minoxidil combined with microneedling for the treatment of telogen effluvium - a case series

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Introduction & Objectives: Telogen effluvium is an important cause of hair loss with a negative psychological effect on patient. The improvement of patient's psychological state can be achieved through an effective treatment of the effluvium. Current treatments involve treating the cause and a series of other therapies, but with limited effectiveness. One of these therapies with limited effectiveness is the local treatment with minoxidil, and ways to improve its efficacy are being sought. The efficacy and safety of local minoxidil therapy combined with microneedling is not known.

Materials & Methods: We present a series of 6 patients treated with topical minoxidil to which microneedling sessions were added. Minoxidil was applied daily at home and during microneedling therapy. The combined therapy sessions with microneedling and topical minoxidil were performed weekly for a period of 12 weeks. The effectiveness of therapy was evaluated by the hair pull test. It was performed at the first visit to the doctor and then at each therapy session. The test was considered positive if 6 or more strands fall out during the test.

Results: All 6 cases presented had telogen effluvium associated with androgenetic alopecia and were women. The average age was 37.6 ± 13.6. Potential causes of telogen effluvium were represented by SARS Cov 2 infection in one case, hypothyroidism combined with iron deficiency in the second case and vitamin D deficiency in a third case. The rest of cases revealed no clear cause. Following the treatment applied in 5 out of the 6 patients, a negative traction test was observed at the 4th treatment session. In the case of only one patient, the traction test was negative at the 6th treatment session. No adverse events were recorded.

Conclusion: The combined minoxidil and microneedling therapy is effective, being able to wait for the telogen effluvium to stop starting with the 4th week of therapy. Further studies are needed to confirm this observation.

EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 3115

Uncombable hair syndrome: a rare case of hair shaft abnormality in a brazilian child.

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Introduction:

Uncombable hair syndrome (UHS) is a type of spun glass hair characterized by its dry, frizzy, unruly nature, which is often described as straw colored or silvery blond and is extremely difficult to manage.

We describe a rare case of UHS in a brazilian child.

Case Report:

A very pleasant 3-year-old girl, whose mother reported that her daughter's hair had always been extremely difficult to manage. The hair abnormality did not significantly affect the patient or her family. On clinical examination, her hair was lusterless, appeared frizzy, and stuck out from the patient's head. General physical examination was unremarkable, and there were no associated abnormalities of the skin, nails, or teeth. The family history was negative for any dermatologic conditions.

Hair clippings and hair pulls were taken and examined using electron microscopy. These hairs showed a triangular shape with a canal on each side of the triangle.

The patient and her family were reassured that her condition was highly unlikely to be associated with any other clinical syndrome or disorder and that her hair appearance and manageability would improve over time. Gentle hair care was recommended, along with the avoidance of harsh hair treatments such as perms, chemical relaxants, or excessive brushing and blow drying.

Discussion:

UHS can present anywhere from infancy to 12 years, although it occurs typically between the ages of 3 months and 3 years. Male and female individuals are affected equally. The hair gradually improve with age, and usually, by the age of 12 years, the appearance is practically normal.

The condition may be sporadic or of dominant autosomic inheritance, generally without any associated abnormalities.

Electronic microscopy is diagnostic. It confirms the longitudinal ridge, and at cross section, 50% of the hairs are triangle-shaped, reniform, flattened, or simply irregular. The triangular shape and the ridge provide the basis for the name pili trianguli et canaliculi. The longitudinal ridge is not specific to this syndrome.

As for pathogenesis, the hairshaft defect may be secondary to an abnormal configuration of the internal root sheath, which becomes prematurely keratinized in the hair follicle.

Becoming stiff, it leads to the formation of the ridge on the malleable shaft that crosses it.

Differential diagnosis involves the other changes of the hair shaft as moniletrix, woolen hair, tricorrexis invaginata, trichorrhexis nodosa and pili torti.

Conclusion:

UHS is a condition that usually resolves spontaneously by adolescence. Gentle hair care is generally recommended using conditioners and soft brushes, along with the avoidance of harsh hair treatments. These treatments improve the general manageability of the hair, although their efficacy is admittedly subjective. Another strategy that has been suggested to ameliorate the appearance of uncombable hair is the use of biotin supplements.

The finding of uncombable hair is usually an isolated finding and as such it is not associated with physical, neurologic, or mental abnormalities. However, other conditions such as ectodermal dysplasia, retinal dysplasia, pigmentary dystrophy, juvenile cataract, digit abnormalities, tooth enamel anomalies, oligodontia, and phalangoepiphyseal dysplasia have been reported to occur with UHS. It has also been associated with alopecia areata, atopic eczema, and ichthyosis vulgaris.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 3130

Scalp Interactome, what is the impact of a new treatment shampoo containing cyclopiroxolamine and Piroctone-Olamine on the ecosystem of the scalp with seborrheic dermatitis?

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Introduction & Objectives: Seborrheic dermatitis (SD) is a chronic relapsing dermatosis characterized by scaling, pruritus and mild erythema, affecting sebum rich areas such as the scalp. A first pharmaco-clinical study showed significant differences in metabolic pathways between the scalp of healthy subjects and those of SD subjects. These innovative results led us to conduct a new pharmaco-clinical study to follow the evolution of the clinical signs of SD, treated with an original shampoo formula, containing Piroctone-Olamine and Cyclopiroxolamine as antifungal, Beta-glycyrrhetinic acid as soothing and antioxidant, and Keluamid with keratolytic actives. The relationship between the microbiota and the metabolic pathways of the scalp has been demonstrated with a clinical evaluation. The ability of our original formula to improve the SD signs, and to maintain this effect, in a 2-step treatment: a short attack phase followed by a maintenance phase was observed.

The aim of this study was to explain, with an integrative and ecosystemic approach, the positive clinical improvement of the SD of the scalp when using our original formula, in a 2-step treatment a short attack phase followed by a maintenance phase.

Materials & Methods: This 2-stage study was conducted on 41 subjects with mild to moderate SD. A two-weeks attack phase (W0-W2) with treatment with SD shampoo three times a week was followed by an 8-weeks maintenance phase (W2-W10) with treatment with SD shampoo once a week and neutral shampoo twice a week for the treatment group and neutral shampoo alone three times a week for the control group. Subjects were randomly assigned to these two parallel comparison groups. Measurements and samples were taken at W0, W2, W6 and W10 depending on the assessment method used. Clinical, biochemical, metabolomic, metagenomic and lipids analysis were performed.

Results: During the attack phase, compared to baseline, there was a significant decrease in clinical signs associated with an increase in fungal and bacterial a diversity and a significant change in the scalp microbiota population of seborrheic dermatitis (b diversity). Significant changes in scalp metabolites related to pruritus and inflammation reinforce these findings.

In the maintenance phase, most of the observed improvements were maintained with a significant decrease in the studied parameters compared to baseline, while in the control group, the improvement regressed significantly.

Conclusion: Together, the omics and biochemical analyses highlighted the links between the clinical improvement in SD and the overall rebalancing of the scalp ecosystem.

EA DV CONGRESS
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Abstract N°: 3160

A Young Girl with Brittle Hair

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Introduction:

Cerebro-oculo-facio-skeletal (COFS) syndrome is a rare rapidly progressive neurologic disorder leading to brain atrophy, with calcifications, cataracts, optic atrophy, progressive joint contractures, and growth failure. It is inherited as autosomal recessive disorder. Children with COFS syndrome have distinctive facial features, including low-set ears, small eyes, small head size (microcephaly), and a small jaw (micrognathia).

Case report :

Herein we present a 3-year-old girl presented to our clinic with sparse, short, brittle hair and photosensitivity. She was born to consanguineous parents. She is following with pediatrician and found to have global developmental delay. Also following with ophthalmology clinic for congenital cataracts, she had lens extraction and intra-ocular lens placement. On examination, she has ichthyosis and brittle sparse hair. Polarized microscopy of hair sample shows: Alternating light and dark bands “Tiger tail”. Patient was sent for genetic clinic for further evaluation where she diagnosed as ERCC2-related cerebrooculofacioskeletal syndrome (COFS2).

Discussion:

Tiger tail finding is typically described in patients with trichothiodystrophy. In this report ,we highlighted the finding of tiger tail in COFS syndrome which is included within the already known spectrum of nucleotide excision repair (NER) disorders: Xeroderma pigmentosum,Trichothiodystrophy and Cockayne syndrome.

EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 3196

Halo Nevi with Perinevoid Alopecia

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[1]Polydoro Ernani de São Thiago University Hospital, Brazil

Introduction & Objectives:

Pigmented nevi can exhibit various inflammatory phenomena, including the well-studied and prevalent Halo Nevi. Perinevoid alopecia is another nevocentric phenomenon associated with pigmented nevi. This case report aims to describe a patient presenting with an erythematous-brownish plaque and hair loss in the parieto-occipital region, highlighting the clinical and histopathological features of perinevoid alopecia.

Materials & Methods:

Clinical examination, dermoscopy, and histopathological analysis were performed to evaluate the patient's condition. Dermoscopy was used to assess the characteristics of the hair and the base of the lesion. Histopathology allowed for the examination of nevus cells and the presence of inflammatory infiltrates.

Results:

The patient presented with an erythematous-brownish plaque and hair loss in the right parieto-occipital region. Dermoscopy revealed thin, white hairs with irregular pigmentation, erythema, and scaling at the base of the lesion. Histopathological examination showed nevus cells arranged in nests in the dermis surrounded by fibrosis, along with miniaturized hair follicles.

Conclusion:

Perinevoid alopecia is characterized by hair loss around a pigmented nevus due to an inflammatory response against nevus structures. Histopathological findings of Halo Nevi include dense infiltrates of mononuclear inflammatory cells surrounding or invading the nests of nevus cells and hair follicles, as well as peripheral melanocyte degeneration. The association between nevi and alopecia is believed to be driven by an immune reaction involving T cell epitopes associated with melanocytes. Surgical removal of the nevus can effectively treat perinevoid alopecia.

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BERLIN 11-14 OCTOBER 2023
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Abstract N°: 3308

Psychotrichology: Psychiatric aspects of hair disorders

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Introduction & Objectives:

Psychotrichology is an emerging field aiming to better understand the psychiatric and psychosocial impacts of disorders involving hair. Recently advances in hair transplant, growing trends of appearance, attractiveness and youthfulness and patients' awareness have given rise to the better attention and understanding of hair health and its disorders. This presentation aims at providing psychiatric aspects of hair disorders.

Materials & Methods:

Search of literature was performed from 2000 to 2022, using Medline search engine. English language articles were identified using the following search terms: Psychotrichology, hair and depression, hair and anxiety, hair and stress, psychological manifestations of hair, psychiatric manifestations of hair.

Results:

Patients with hair disease have impaired quality of life, low self-confidence, anxiety and depression, sleep disturbances, stigmatization, and self-harm ideations. The psychological impact of hair disease is predicted and directed by attitudes of society, natural history of hair disease, personality characteristics, character, and values of the patient and individual life situation. Patients with hair disease may suffer from depression, anxiety, low self-esteem, body image issues, reduced quality of life and in severe cases suicidal ideations.

Conclusion:

Initial consultation for hair disease must include psychological evaluation and Dermatology- psychiatry- trichology liaison is highly recommended. Separate psychodermatology and psychotrichology clinics and didactics should be introduced in the training programs.

EA DV CONGRESS
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Abstract N°: 3334

Outcomes of down-titration in patients with severe scalp AA treated with baricitinib 4mg: Week 104 data from study BRAVE-AA2.

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Introduction & Objectives: Baricitinib (2-mg and 4-mg, once-daily), an oral, selective, Janus kinase 1/2 inhibitor, was superior to placebo at achieving hair regrowth in patients with severe alopecia areata (AA) at Week-36. Here we report Week-104 efficacy results from the down-titration portion of BRAVE-AA2 (NCT03899259), a randomized, double-blind, placebo-controlled phase 3 trial.

Materials & Methods: BRAVE-AA2 enrolled 546 adults with severe AA (Severity of Alopecia Tool [SALT] score ≥50). At Week-52, patients initially randomized to baricitinib 4-mg who were responders (SALT score ≤20) were rerandomized 1:1 to stay on 4-mg or down-titrate to 2-mg. Retreatment to initial baricitinib dose was automatically triggered by a worsening of Week 52 SALT score >20 points (“loss of treatment benefit”). Descriptive statistics are summarized using observed data and multiple imputation.

Results: At Week-52, 86/234 baricitinib 4-mg treated patients were responders. Following rerandomization, 44 patients remained on baricitinib 4-mg, and 42 down-titrated to baricitinib 2-mg. At Week-104, a SALT score ≤20 was maintained in 90.2% of responders who remained on baricitinib 4-mg. Overall, 45.2% of patients who down-titrated to baricitinib 2-mg experienced a loss of treatment benefit by Week-104. For patients who had achieved SALT score ≤20 by Week-36 and maintained it up to Week-52 (sustained response) loss of treatment benefit occurred in 39.4% (13/33) compared to 66.7% (6/9) for patients who had not. During 36 weeks of retreatment, 71.4% (5/7) recaptured SALT score ≤20.

Conclusion: These data help to inform decisions on down-titration, however, more work will be needed to better define timing and conditions for successful downtitration.

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Abstract N°: 3349

A 2023 snapshot of sensitive scalp prevalence worldwide Data from the All Skins-All Colors-All Dermatoses: the ALL PROJECT:

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Introduction & Objectives:

In 2008, a publication highlighted that a sensitive scalp was a reality (Misery L, Sensitive scalp: does this condition exist? An epidemiological study. Contact Dermatitis. 2008). In this publication, based on a representative French population, 44.2% of French people said they suffered from a sensitive scalp (47.4% for women versus 40.8% for men). We wanted to investigate this, especially as few evaluations have been carried out on this subject.

Materials & Methods:

The ALL PROJECT involves 50,552 individuals, representative of the adult populations of 20 countries spread over all five continents. In each of the 20 countries surveyed, we conducted a population-based study on representative and extrapolable samples of the general population aged 16 years or more.

No study has simultaneously evaluated the prevalence of sensitive scalps worldwide. The ALL PROJECT aims to provide a snapshot of the prevalence of sensitive scalps.

To be consistent, the questions were formulated in the same way as in the 2008 study.

In countries where the legislation allows it, we asked the ethnicity of the respondent: the question was phrased as follows: What is your ethnic group? 1°Asian includes any Asian background, 2°Black, African includes any Black background; 3° Mixed or multiple ethnic groups includes any Mixed background; 4° White includes any White background; 5°Another ethnic group includes any other ethnic group. For ethical reasons, there was the possibility to choose the answer: “I would prefer not to respond”.

Results:

The 2023 snapshot prevalence of sensitive scalp in the population aged 16 years and older is 46.8% (48.5% for women versus 45.5% for men), which is in line with the results obtained 15 years ago. Although there are differences in prevalence between the different countries, it should be noted that in no country is the prevalence lower than 33%, nor is it higher than 66% in any country. It can be observed that the perceived prevalence of a sensitive scalp is greater the younger the patient: 55.60% for 16–34-year-olds; 45.25% for 35–54-year-olds and 32.13% for 55-year-olds and above. **We evaluated the prevalence of sensitive scalp according to ethnicity: extrapolated scalp prevalences are as follows: 1°Asian: 47.10%, 2°Black:62.49%; 3°Mixed:58.44% 4°White:52.66% : 5°Another ethnic group: 53:38%**

Conclusion:

As Misery’s work anticipated, a sensitive scalp is a reality. In our study, nearly 1 in 2 individuals claimed to have it. It seems that depending on ethnicity, the prevalence of sensitive scalp may be different but is always close to 50%. It seems legitimate that further analysis from the ALL Project database could provide us with answers and leads for future studies.

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Abstract N°: 3383

Clinical picture of nails in chronic venous insufficiency

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Clinical picture of nails in chronic venous insufficiency

Introduction & Objectives:

Changes in the appearance of the nail plate can provide a lot of important information about the health and condition of the body. A healthy nail plate is smooth, uniform, oblong, slightly convex and slightly pink in color.

Chronic venous insufficiency (CVI) is a set of clinical symptoms leading to impaired blood flow from the veins of the lower limbs and to venous hypertension. As a result of damage to the valves that allow blood to return towards the heart, venous reflux occurs. The disease mainly affects middle-aged and elderly people. The first visible symptoms of venous insufficiency may be visible dilated blood vessels - venectasia, a feeling of heaviness in the lower limbs, pain, as well as swelling and cramps. The disease may consequently lead to thinning and discoloration of the skin around the lower legs and feet, extensive inflammation, leg ulcers and deep vein thrombosis.

Materials & Methods:

In the presented study, the organoleptic assessment of skin and vascular changes in the course of CVI and the assessment of the severity of various changes related to this disease within the nail plate were performed.

Results:

Circulatory disorders within the microvessels of the skin of the feet and the nail bed lead to and deformation of the nail plate.

Changes in the appearance of the nail in venous insufficiency are characterized by damage and deformation of the plate, thinning of the (*lat. Onycholysis),* exfoliation *(lat. Onychomadesis)* and partial detachment of the nail from the bed. (lac. *Onychoatrophy*) may occur when the blood supply to the nail is disturbed.

Circulatory disorders within the nail bed may induce deformation and overgrowth of the nail plate. The nail plate becomes thicker, may be characterized by transverse and longitudinal furrows, changes color and may be brittle. Plate claws are often observed– *(lat. Onychogryposis).*

Conclusion:

Damage to the nail plate and circulatory disorders within the nail bed affect not only the appearance of the nails, but can also be a predisposing factor for nail plate infections with dermatophytes and fungi. Thus, nail onychomycosis may be a secondary effect of vascular problems.

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Abstract N°: 3583

A case of subungual onycholemmal cyst

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A case of subungual onycholemmal cyst

Subungual onycholemmal cyst (SOC) is a rare nail abnormality which affects the dermis of the nail bed. SOC has different clinical presentations, including onychodystrophy, ridging, clubbing, thickening, pigmentation, or even normal appearance. It can mimic different nail malignancies, such as melanoma, SCC, or glomus tumor. In this report, we describe a 54-year-old taxi driver was referred to our orthopaedic department with onychodystrophy on a nail of the second right finger from a year before the current presentation. No history of recent trauma, pain, or bleeding has been noted. On physical examination, onycholysis and onychodystrophy of the right second nail were revealed. The lesion had tenderness when it was compressed bilaterally.

Complete surgical excision of the nail was performed with local anaesthesia . On surgery of the nail plate, a lesion measuring 10 × 10 mm appeared within the nail bed. The histopathological examination revealed a subungual onycholemmal cyst .Nail biopsy can contribute to the early diagnosis of SOC and improvement of treatment outcomes.

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Abstract N°: 3602

Efficacy and tolerance of a selenium disulfide-based shampoo in Chinese subjects with mild-to-moderate scalp seborrheic dermatitis: results from a double-blind, randomized, vehicle-controlled study

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Introduction & Objectives:

Scalp seborrheic dermatitis (SD) is a chronic, relapsing inflammatory condition characterized by dandruff, erythema, and pruritus. Studies indicate a global microbiota shift of scalp SD compared to healthy scalp, especially fungal colonization of *Malassezia* spp.. Selenium disulfide (SeS2) is clinically beneficial in scalp SD. The aim of this study was to assess the efficacy and tolerance of a 1% selenium disulfide-based shampoo (SeS2 shampoo, also containing 0.9% Salicylic Acid, Vitamin E and Ceramide-R) in Chinese subjects with mild-to-moderate scalp SD.

Materials & Methods:

Single-center, randomized, double-blind, vehicle-controlled study conducted in 58 subjects with mild-to-moderate scalp SD. After a 4-week washout period, subjects applied the tested shampoo (randomized into the SeS2 or vehicle group) 3/week from Day 0 to Day 28 (treatment phase) and 1/week until Day 42 (maintenance phase).

At Day 0, Day 7, Day 14, Day 28 and Day 42, subject-assessed scores of flaking, itching and greasiness were measured with visual analogue scale (VAS, ranging from 0 to 10). SD score (0~9) including erythema, dandruff, and lesion extent (% scalp area) using a dermoscopic device and ASFS score were assessed by dermatologists, instrumental measurements included sebum quantity and TEWL rate at all time points. Scalp fungal colonization was detected by fungal fluorescence staining at Day 0, Day 28 and Day 42.

Results:

30 subjects in the SeS2 group and 28 subjects in the vehicle group were included, with 63.8% females and 36.2% males, and a mean age of 29.9 years. The baseline SD score was 4.4.

SeS2 shampoo significantly ($p<0.05$) reduced the SD score by 18.2%, 25.8%, 27.3% and 31.2% after 7, 14, 28 and 42 days of use, respectively compared to a 0%, 6.5%, 2.5% and 4.1% decrease with the vehicle. The ASFS score was also significantly ($p<0.05$) reduced with the SeS2 shampoo by 43.5%, 50.7%, 43.5% and 49.5% at Day 7, 14, 28 and 42 respectively.

Scalp fungal colonization was greatly reduced to "negative or absence" in the SeS2 group while no change (still in active multiplication) in the vehicle group at both Day 28 and Day 42.

In terms of sebum and TEWL, a mild decrease of sebum was observed after using SeS2 shampoo for 7 days, while in the vehicle group a trend of increase was observed for both parameters during the study.

According to the subjects flaking and itching had significantly ($p<0.05$) reduced with SeS2 shampoo at all visits. Greasiness also improved continuously with SeS2 shampoo compared with the vehicle. Subjects were highly satisfied with SeS2 shampoo.

Conclusion:

The tested 1% SeS2-based shampoo was beneficial and well tolerated in mild-to-moderate scalp SD of Chinese subjects and significantly reduced scalp fungal colonization compared with the vehicle, with a significant anti-dandruff, anti-erythema, anti-itchiness effect observed as early as the first week and up to 6 weeks of use.

C1 - Internal use

C1 - Internal use

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Abstract N°: 3736

Assessment of serum and gene expression of microtubule-associated protein light chain 3 (LC3) as an autophagic marker in patients with premature graying of hair: a cross-sectional study

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Introduction & Objectives: Premature graying of hair (PGH) is a common disorder with a multifactorial etiology.** Autophagy which is self-cellular digestion has been linked to melanin pigment formation, however the role of autophagy in PGH has not been investigated well. So, the study evaluated the relationship between PGH and autophagy by measuring LC3 gene expression by Polymerase chain reaction (PCR) and serum LC3 concentration by Enzyme-linked immunosorbent assay (ELISA).

Materials and methods: A cross-sectional study was conducted on 39 PGH patients and 21 controls. Patients with clinically diagnosed with PGH and aged <30 years were included in the study. Blood samples were taken to detect LC3B protein by ELISA in the serum of both groups. White hairs from both groups were collected to detect LC3B gene expression by PCR.

Results: The mean age was 27.03± 3.7 years in the control group and 27.1± 1.7 years in PGH patients. In PGH patients, the history of the age of onset was 19.77± 3.5 years old. There was a statistically significant difference between the 2 groups as regards expression levels of the LC3 gene by PCR ($p < 0.001$) with the mean in the control group (0.71± 0.3) lower than it in the PGH group (5.1± 1.4). Also, there was a positive significant correlation between LC3 concentration and LC3 gene expression in control ($r=0.867$, $p< 0.001$); and in PGH patients ($r=0.954$, $p=< 0.001$). Multivariate logistic regression analysis for PGH predictors using the age, sex (female), hemoglobin level, LC3 concentration, and LC3 gene expression revealed that the only predictor of PGH was LC3 gene expression.

Conclusions: Premature graying of hair might have a link with autophagy. LC3 gene expression was increased in PGH patients as compared to the control. LC3 gene expression might be an independent predictor of PGH development. With one point increase in the LC3 expression, there was six times increase in the risk of having PGH.

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Abstract N°: 3832

Folliculitis decalvans associated with pilaris and spinulosic lichen planus: A case report

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Introduction & Objectives:

Lichen pilaris (LP) and folliculitis decalvans (FD) are primary cicatricial alopecia, the first classified lymphocytic and the second neutrophilic. LP manifests as peripilary erythema and perifollicular hyperkeratosis, while FD manifests as follicular pustules and tufted hair. Regarding treatment, LP responds mainly to anti-inflammatory and retinoid treatments, and FD responds to anti-bacterial agents. We report the case of a patient who presents the clinical signs of both pathologies concomitantly, a rather rare and recently described association.

Materials & Methods:

It's a 38-year-old patient, who presents with vertex alopecia evolving for 4 years. The alopecic plaque measured 12 cm x 8 cm. Dermoscopy showed perifollicular erythema and hyperkeratosis, sliding sheaths, yellowish crusts and tufted hair. Traction sign was negative. Eyebrows dermoscopy revealed erythema associated with perifollicular hyperkeratosis, and that of the eyelashes found sliding sheaths. Nails and mucous membranes were normal. Body examination revealed itchy follicular papules on the back, root of the upper limbs, abdomen, and buttocks. The patient was treated first with antibacterial agents, then the biopsy revealed lichen pilaris, oral and local corticosteroid therapy was then started. After 2 years of treatment, the patient improved partially and then relapsed. Two new biopsies were performed revealing on the first fragment FD and the second LP.

Results:

Morais and al described in 2018 a series of 13 patients diagnosed as LP with pustules. They considered the latter a new lichen subtype, based on the presence of pustules, crusts, tufted hair, erythema, and perifollicular hyperkeratosis. The tufted hairs were attributed to the intensity of inflammation inducing disorganization of the arrangement of the follicles, and the pustules were attributed to a secondary infection or the penetration of microbial agents to the scraping sequence.

LP and FD association was first described by Yip and Al in 2020 ; with a series of 13 patients who presented the concomitant or sequential association of FD and LP features for which they proposed the concept of phenotypic spectrum FD/LPP. Their 1st hypothesis is that the immune consequences of the follicular dysbiosis of FD leads to the collapse of the immune privilege of the hair follicle thus exposing a follicular autoantigen with an infiltrate of inflammatory TH1 cells as could be shown in LP. The 2nd hypothesis explains that the clinical and histological changes 'LP like' represent a crude form of FD modified by the treatment.

Why do we agree more with the first hypothesis? LP can affect any part of the body containing hair follicles. In our patient, LP lesions were visualized on the scalp, eyelashes, and eyebrows, as well as spinulosic lichen lesions on the body. LP diagnosis was therefore retained clinically before the result of histology. LP is not characterized by the presence of pustules. The pustules on the scalp leads us to suggest an association of pilaris and spinulosic lichen with FD, the results of which are supported by histology.

Conclusion:

Our clinical case differs from other cases because our patient presents criteria not only for LP but also for

spinulosic lichen, which helps us determine whether it is a LP or a FD. The phenotypic spectrum FD/LP should therefore be better known by dermatologists, so that the management of patients can be is optimal using the right treatment.

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Abstract N°: 3857

Chronic Retronychia: Nonsurgical Treatment

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Introduction & Objectives:

Retronychia is a particular form of post-traumatic ingrown nail associated with repeated microtrauma of the underside of the proximal nail fold. It is caused by the nail embedding backward into the underside of the proximal nail fold, forming multiple generations of nail plate.

The aim of this study was to evaluate the results of a novel non-surgical treatment of retronychia in our clinic. A review was performed on 20 patients who were seen between 2013 and 2018. In 16 patients, the changes lasted for several years; only in 4 of them, the duration of retronychia was less than one year. The most common clinical features were swelling of the proximal nail fold, thickening of the nail plate, nail growth arrest and a tightly adhering nail plate in the junction of the proximal and lateral nail folds.

Materials & Methods:

A review was performed on 20 patients who were seen between 2013 and 2018. In 16 patients, the changes lasted for several years; only in 4 of them, the duration of retronychia was less than one year prior to treatment. The most common clinical features were swelling of the proximal nail fold, thickening of the nail plate, nail growth arrest and a tightly adhering nail plate in the junction of the proximal and lateral nail folds.

Results:

The treatment was a combination of eliminating the proximal sharp edge of the uppermost nail layer and thinning of the nail with fraises and drills of various sizes. This therapy was repeated every 7–14 days. The patients came for checkup every 6 weeks. Treatment duration varied from 2 to 14 months. The rate, at which the appearance of a healthy nail occurred depended on the length of the intact nail layer below the part of the nail affected by retronychia, the age of the patient, and cofactors such as obesity, diabetes, etc. The treatment result in our case study was completely healthy nail growth without relapse of retronychia in all the 20 patients for a follow-up period of 18 months.

Conclusion:

By combining a healthy nail growth and the simultaneous protection of the nail, we were able to achieve a normal nail in all cases. In order to maintain the achieved results, we recommended our patients to continue wearing protective tubes whenever they would wear closed shoes because recurrence of retronychia may occur even after minimal trauma.

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Abstract N°: 3897

Apremilast induces complete regrowth in a case of alopecia totalis, universalis

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Introduction & Objectives: Alopecia areata is a common autoimmune skin disease. It causes patchy loss of hair on the scalp or other parts of the body. The condition is cosmetically disabling though not life threatening. In a case of alopecia totalis (complete loss of scalp hair) or universalis (complete loss of body hair), few drugs are known to work. The drugs that we use cause immunosuppression & need monitoring investigations. Apremilast is a newer agent used mainly in psoriasis. We put a 14 year old male with alopecia totalis, universalis on apremilast & found it to be effective.

Materials & Methods: A 14-year-old male presented with near complete loss of scalp & body hair of 1 year duration. He was previously treated with oral steroids, methotrexate, intralesional steroids & topical agents with no regrowth. There was no family history. The patient was not atopic & his thyroid function tests were normal.

Results: He was started on apremilast 10 mg per day by us. The Covid19 lockdown prevented him from coming for the follow up, but he continued taking the tablet. As the lockdown was lifted, he came for follow up assessment. To our surprise, he was showing regrowth of hairs on the scalp at the dose of 10mg per day at the end of 3 month. We increased the dose to 20mg, 30mg, 40mg & 50 mg per day at 2 weekly intervals. At the end of 6 months, the patient had complete regrowth of scalp, eyebrows, eyelashes & near complete regrowth on the body. There were no side effects. Liver function tests & serum creatinine was done at 6 months which was normal.

Conclusion: Apremilast was very effective with complete regrowth in this case of alopecia totalis, universalis with no side effects. This drug will prove to be a welcome addition in treating this condition.

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Abstract N°: 3909

An effectiveness and safety study of herbal extract combination (Dihydroquercetin glucoside, Epigallocatechin gallate glucoside, zinc and glycine) comparing to 3% minoxidil solution for the treatment of androgenetic alopecia: A Randomized, Double-blind, Controlled Trial

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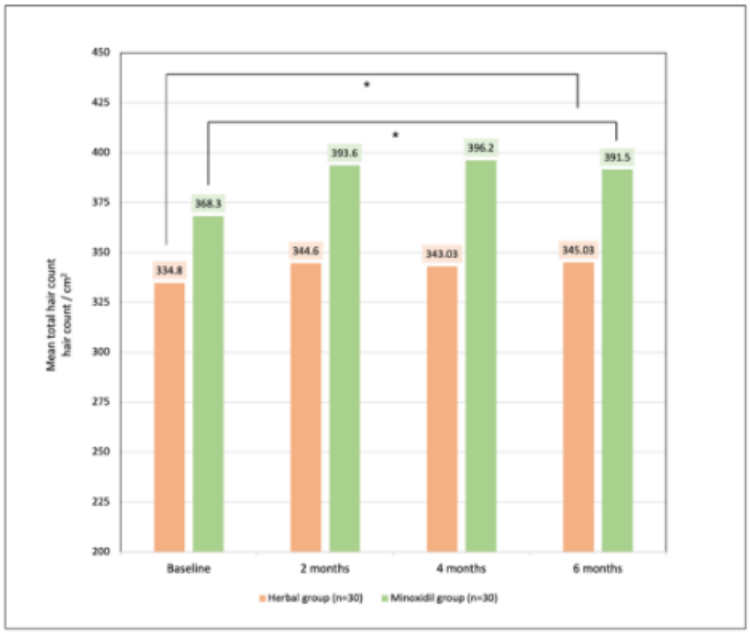
Introduction & Objectives: Androgenetic alopecia (AGA) affects both men and women. Standard treatments include topical minoxidil and oral finasteride, which can cause unsatisfactory side effects. Therefore, a natural herbal extract is examined as an alternative treatment. The objectives of this study is to assess both the efficacy and safety profiles of an herbal extract comprising a combination of dihydroquercetin glucoside, epigallocatechin gallate glucoside, zinc and glycine, compared to the standard minoxidil solution for the treatment of AGA.

Materials & Methods: 30 males and 30 females were recruited. Both male and female subjects were divided equally into two groups (n=30), which randomly received either a minoxidil solution or herbal extraction twice a day for 24 weeks. Clinical efficacy, total hair count, and hair mass index (HMI) were evaluated.

Results: 30 males and 30 females completed the study. The total hair count (hairs/cm2) at baseline in the herbal group and minoxidil group were 334.8±108.8 and 368.3±178.4, respectively, and the total hair count at 24 weeks in the herbal group and minoxidil group were 345.0±119.2 and 391.5±183.1 ($p<0.001$, $p<0.001$), respectively (*Figure 1*). The HMI in the herbal group and minoxidil group had a significant increase of 25.83±17.18 and 33.70±15.17 ($p=0.001$, $p<0.001$), respectively, at 24 weeks (*Figure 2*). However, there was no significant difference in total hair count and HMI between the two groups at 24 weeks ($p= 0.250$, $p=0.065$). No local adverse effects were observed in both groups.

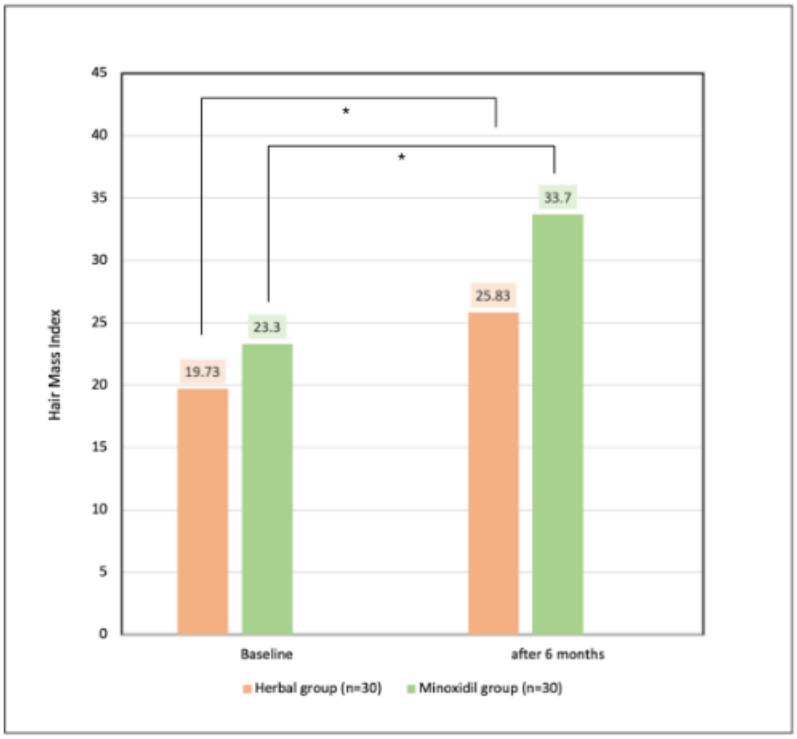
Conclusion: The non-significant difference in efficacy and safety to minoxidil solution suggests that the studied herbal extract could be an alternative treatment for AGA, especially in patients concerned with the possible side effects of the current standard treatments. Nevertheless, further testing in a larger sample size may be required to support these findings

Fig. 1 Comparison of the mean total hair count (hair count /1 cm2) of herbal group and minoxidil group at baseline, 2 months, 4 months and 6 months.



*p-value

Fig. 2 Comparison of hair mass index of herbal group and minoxidil group at baseline and after 6 months.



*p-value

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Abstract N°: 3913

A Cross-Sectional Study on the Prevalence, Psychological Impacts, and Associated Factors of Premature Greying of Hair Amongst Students of a Thai University

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Introduction & Objectives:

Premature Greying of Hair (PGH) is a cosmetic issue affecting youths, and limited research has been conducted on its prevalence and impact in the Thai population. This study aims to investigate the prevalence, psychological impact, and associated factors of PGH in students at a university in Thailand.

Materials & Methods:

A cross-sectional study was conducted with volunteering students aged 25 or younger from a Thai university. Participants completed a self-administered survey that included questions on PGH status, psychological effects, hair dyeing status, and associated factors which include psychological stress (as Thai Perceived Stress Score; TPSS), alcohol and cigarette consumption, BMI, paternal and maternal history of PGH, exercise frequency, and diet.

Results:

A total of 441 participants (79.77% male, 19.77% female, and 0.45% trans-female) were included in the analysis, with an average age of 20.77±1.57 years.

The prevalence of PGH was 47.17%, with an average onset age of 16.29 ±3.08 years. Self-assessment revealed hair greying of <25% in 89.42% of all PGH cases. Of those with PGH, 67.31% reported no psychological impact, whilst 25.00% reported self-confidence loss, and 7.69% were bullied. Of those bullied, friends and non-parental relatives were primarily responsible, accounting for 76.19% and 38.01% respectively. Hair-dyeing in non-PGH is 32.19%, versus 57.69% in the PGH group; of which 64.17% had no intention of concealing grey hairs.

PGH is found to be significantly associated with maternal and paternal history of the condition ($p<0.001$). The analysis revealed people with PGH had lower TPSS on average (19.38±5.67) than those without (20.81±4.63). Categorised stress levels from TPSS, however, showed no significant association with PGH. No significant associations were found with alcohol and cigarette consumption, BMI, exercise frequency, and diet.

Conclusion:

The results showed a high prevalence of PGH. The majority of PGH reported <25% hair greying and no psychological impact. PGH is found to be significantly associated with maternal and paternal history.

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Abstract N°: 4237

Alopecic and aseptic nodules of the scalp. There is always something new to learn.

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Introduction & Objectives:

Aseptic and alopecic nodules of the scalp (AANS) is a rare and highly under-recognized condition. It is thought by some authors to represent a mild form of dissecting cellulitis of the scalp and presents with solitary or multiple nodules on the scalp associated with nonscarring alopecia and is usually surrounded by intact skin. It predominantly affects males and can be seen in Asian and Caucasian populations. Follicular occlusion has been suggested as a likely cause. AANS poses a diagnostic challenge as it can be easily misdiagnosed based solely on their morphological characteristics. Several conditions, including Hoffman's dissecting folliculitis, rupture folliculitis, and folliculitis decalvans, share similar features, making it necessary to consider a broader range of factors for an accurate diagnosis. To differentiate between them, additional information such as the patient's medical history, the progression and duration of symptoms, as well as any associated factors, should be carefully evaluated. In some cases, additional diagnostic tests, such as microbiological cultures, skin biopsies, or imaging studies, may be necessary to confirm the specific condition and guide appropriate treatment strategies. The objective of this case report is to highlight the importance of considering AANS as a differential diagnosis in the appropriate clinical settings and highlight the critical role of clinicopathological correlation.

Materials & Methods:

We report the case of a 23-year-old male patient who presented with a solitary asymptomatic lesion of alopecia on the upper part of the occipital area for 1.5 years, accompanied by acne on his face. A punch biopsy was performed which resulted in the release of yellowish transparent liquid.

Results:

Histopathological examination of the biopsy revealed the presence of active and somewhat palisaded granulomatous inflammation with the formation of pseudocysts, consistent with AANS. Histological and cytological examinations showed no signs of fungal or bacterial infection.

Conclusion:

This case report highlights the importance of clinicopathological correlation in making a correct diagnosis of AANS. The condition is rare, and probably underdiagnosed. From a morphological point of view, it can be easily misdiagnosed as other mimics. It is important to consider AANS as a differential diagnosis in patients presenting with scalp nodules and alopecia. AANS show a good response to treatment, but further studies are needed to determine the underlying causes of this rare condition.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 4244

a study of nail manifestations in immunobullous disorders

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Introduction & Objectives: Immunobullous disorders including Pemphigus and Pemphigoid group are characterized by autoantibodies against desmoglein and basement membrane zone proteins and manifest primarily with cutaneous and oral lesions. In this study we have evaluated the incidence of nail changes which are less common in the immunobullous disorders.** The objective of this study was to identify various types of nail manifestations with regards to the associated Immunobullous disorder**.**

Materials & Methods: This is an observational study. All the patients with Immunobullous diseases who attended our DVL OPD in March 2022 to April 2023 were analyzed for nail changes and the associated blistering disorder.

Results: A total of 78 patients were included in this study out of which the most common being Chronic paronychia (26, 33.33%) , followed by Trachyonychia (17, 21.79%) , Onychomadesis (11,14.10%), Onycholysis (9,11.5%), Pitting (8,10.25%), Nail plate dystrophy (4,5.12%), Beau's lines (3,3.84%) were the most common clinical patterns. Pemphigus and Pemphigoid group of disorders were the commonly encountered disorders.**

Conclusion: Nail manifestations are disturbing both to the patients and physicians. Nail lesions were polymorphic in our patients. Nail involvement may precede, be concomitant or follow the mucocutaneous lesions and be assign of severity or relapse.The importance of this study is to identify the frequency and type of nail changes in immunobullous disorders which were thought to be rare has been found to be higher in recent times.

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Abstract N°: 4370

Localized hypertrichosis after infectious rash.

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Introduction & Objectives:

Hypertrichosis is described as an increased hair growth on any part or over whole body in comparison to persons of the same age, sex, and race which is independent of androgen excess. It may be localized and generalized or alternatively acquired and congenital forms. The acquired localized hypertrichosis has been associated with various causes including local trauma, chronic irritation, inflammation, occlusion by cast, and drugs.

Materials & Methods:

Here, we report a case of a healthy 2-year-old female child, born after a normal vaginal delivery at term, presented with focal areas of increased hairiness on both lower limbs and the back.

The child presented 4 months earlier with bullous impertigo treated with oral antibiotics and local care. The evolution was marked by the appearance of these hyperpigmented macules surmounted by hairs in the area of the former infectious lesions.

The dermoscopic examination showed a pigmented network with rosettes in some places and an increased number of hairs.

There was no history of administration of other drugs, including topical steroids.

The rest of the physical examination was normal.

Results:

Localized excess hair growth or hypertrichosis has been associated with several factors, including repeated skin trauma, periphery of burns, and insect bites. Review of English-language literature from the last 50 years found only 3 reports of localized hypertrichosis after infectious rash.

Although heat and hyperemia are postulated to serve as growth stimulants for the hair follicle, the exact pathophysiology of localized hypertrichosis is unclear. Of interest, transient vanilloid receptor found in human hair follicles and stimulated by heat and inflammation has been implicated in hair growth in mice by inducing anagen in telogen hair follicles in vivo.

It is possible that the sustained inflammatory process associated with more severe SSTIs (serving as the initial insult in our patients) may be more likely associated with protracted stimulation of transient vanilloid receptor and subsequent hair growth, although this hypothesis remains to be proven.

Conclusion:

Regardless of its mechanism, based on the published literature involving infectious causes of localized hypertrichosis and the case described here, localized hair appears to have no adverse health consequences and should require no further evaluation.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 4416

Polydactylous Retronychia after Removal of a Plaster Cast : a report of two cases

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Introduction & Objectives:

Retronychia is defined by a proximal ingrowth of the nail plate into the supra-nail fold. Favoring factors are predominantly microtrauma.It is often misdiagnosed at an early stage, which delays management.

Materials & Methods:

We report two cases of polyretronychia after removal of an anterobrachial-palmar cast on the same side.

Results:

Two patients, aged 22 and 25 years respectively, with no previous pathological history, experienced a fracture in the lower extremity of the right forearm, requiring the use of an anterobrachial-palmar cast for several weeks. Two months later, they consulted for a very painful swelling the proximal supra-nail fold of the nails of the 2nd, 3rd, 4th and 5th fingers of the right hand for the first patient, and in all the five fingers of the right hand for the second. The dermatological examination noted a proximal paronychia with growth arrest of these nails, associated to pyogenic granuloma-like lesions in the second patient. in the first case, surgical avulsion of the third nail confirmed the diagnosis by demonstrating a superposition of the new and old nails, for the retronychia of the other three nails, an application of topical corticosteroid was indicated once a day under occlusion. The evolution was marked by the disappearance of pain and paronychia with good nail growth. In the second case, intralesional corticosteroid infiltrations were performed, resulting in a very favorable outcome.

Conclusion:

Retronychia is a pathology of the nail most often affecting young adults. It is most often due to microtrauma, responsible for proximal ingrowth.The toenails are the most affected. However, location on the hands is very rare, which makes the diagnosis more difficult and often confused with candidal or bacterial perionyxis. The occurrence of retronychia after cast immobilisation is rarely described in the literature, and the mechanism is not yet well understood, but could be explained by a break in continuity between the nail plate and the matrix as a result of reduced blood flow due to the compressive effect of the cast. The treatment of retronychia depends on the stage of evolution. Topical corticosteroids are indicated in the case of early paronychia. Surgical avulsion is indicated in the late stage or if there are pyogenic granuloma-like lesions.

The location and the mechanism of occurrence of retronychia in our patients make the particularity of our reports. The interest of the knowledge of this onychopathy allows a fast and adequate management.

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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 4471

Work- associated median canaliform dystrophy of Heller : about a case

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Introduction & Objectives:

Median canaliform dystrophy of Heller is a rare nail anomaly, presenting clinically as a central or paramedian groove or fissure with multiple transverse lines . The exact etiopathogeny is difficult to determine, but self-inflicted trauma in the context of stress or obsessive-compulsive disorder is reported in most cases, we report here a case of median canaliform dystrophy of Heller due to a work-related cause.

Observation:

This is a 70 year old woman, of rural provenance, carpet weaver, this patient had no particular pathological history including dermatological disease or psychiatric disorders or drug intake, who came to consult for a dystrophy of the thumbnails that evolves for 10 years, On clinical examination we noted the presence of a central longitudinal depression traversed by parallel transverse crevices giving an appearance of fir branch; These lesions were present symmetrically on the nails of the 2 thumbs, we also noted the presence of macrolunules, there was no paronychia nor subungual hyperkeratosis nor pain on support, the examination of the toenails showed a similar lesion on the left big toe nail, The other nails were strictly normal, there were no distant skin lesions and the rest of the somatic examination was without particularities.

Conclusion :

Heller's median canaliform dystrophy or dystrophia unguis medianna canaliformis is a rare acquired condition, affecting both sexes in equal proportions. The pathophysiology remains poorly elucidated, but most hypotheses converge on the notion of a lack of keratinocyte adhesion to the nail matrix, which leads to low resistance of the latter and consequently to the appearance of furrows,

This lack of adhesion and low resistance are favored by the use of oral retinoids or especially by trauma, either self-induced if psychological disorders or, as in the case of our patient, by chronic local microtrauma due to her profession.

The positive diagnosis is clinical, by revealing a median longitudinal groove which starts under the cuticle and ends at the free edge of the nail, with parallel transverse ridges giving a very characteristic fir tree aspect, the ungual damage is often bilateral and symmetrical

Several treatments have been tested, such as topical tacrolimus, retinoids including tazarotene and also intralesional injections of triamcinolone, but these treatments often give very modest and unsatisfactory results.

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BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 4514

Preliminary results of effects of baricitinib on nail involvement in alopecia areata

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Preliminary results of effects of baricitinib on nail signs of alopecia areata

Introduction & Objectives:

Alopecia areata (AA) is an autoimmune disease that mainly causes a non-scarring alopecia involving the scalp and/or body. Nails are involved in 7–66% of patients with AA, especially in severe forms such as alopecia totalis (AT) or universalis (AU). Nail changes in AA represent a significant source of cosmetic disfigurement and functional impairment such as the face involvement. Clinically and onychoscopy of nail alopecia areata are represented with trachyonychia and nail pitting.

The aim of our study is to present preliminary data regarding efficacy and tolerability of oral baricitinib in patients with AU and nail involvement. Baricitinib is a JAK inhibitor approved in AA but studies published in the literature have evaluated only the response of hair scalp and face to the drug and not the nails.

Materials & Methods:

All patients enrolled were adults affected by AU, previously treated with topical and systemic treatment without improvement. The treatment with baricitinib, at a dosage of 4 mg/day, was administered as monotherapy. Patients were evaluated after 1, 3, 6, 9 months of first administration. A complete dermatological assessment including trichoscopic and onychoscopic evaluations were performed during every scheduled visit.

Results:

Of all patients included, 65% were female with a mean age of 34 years (range 20 -51 years). All patients had nail involvement characterized by geometric nail pitting and trachyonychia, and punctate leukonychia.

After 1 month of systemic therapy with baricitinib 4 mg/day, the patients were evaluated showing no change during the evaluations. After 3 months of therapy, subjects enrolled were reassessed and showed initial improvement in the proximal part of the nail plate.

Conclusion:

Our results demonstrate that treatment with JAK inhibitors is effective on the different part of the body on hair but also it improves nail involvement in patients affected by AA, albeit at a slower rate than hair regrowth.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
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Abstract N°: 4532

Androgenetic alopecia; topical use of growth factor mimetic oligopeptides to support tradional therapy?

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Introduction & Objectives: Androgenetic alopecia is the most common form of alopecia. It is characterized by reduction in diameter, length, and pigmentation of the hair. This is because androgens, in the scalp of susceptible men, can suppress hair growth and promote hair miniaturization in the anagen stage, leading to common baldness. Hair loss typically involves the temporal areas and the vertex of the scalp, while generally sparing the occipital area. Androgenetic alopecia has a significant influence in the patient's quality of life, and it often impacts on the patient's self-esteem.

Case report: We reports a case of a 35 year old man, with a progressive hair loss in the past 2 years and strong psychological impact. Medical team proposed a conservative therapy, based on topical minoxidil 5%, oral finasteride and topical application of a gel containing three oligopeptides mimicking growth factors, caffeine and taurine, and an iron chelating complex. The patient underwent monthly follow-ups, and at 6 months after the start of the therapy, the results were striking: increased thickness of the shaft at the fronto-parietal and vertex levels and increased hair density per pilo-sebaceous unit were observed. **Conclusion:** Explaining this case report we support that weekly use of a gel containing three growth factor mimicking oligopeptides, caffeine and taurine, and an iron chelating complex (GFmgelÒ) is particularly effective in subjects with androgenetic alopecia when used in combination with anti-hair loss medications such as topical minoxidil and oral finasteride.

EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 4537

Post-covid telogen effluvium: Characterization of a recently described entity with a high prevalence in the dermatology practice.

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Introduction:

The long-term sequelae of coronavirus disease 2019 (COVID-19) have been little studied, but they are of great social interest. These include symptoms such as dyspnoea, fatigue, cough and dysosmia, but also other symptoms unrelated to respiratory syndrome such as acute telogen effluvium.

Objectives:

Clinical characterization of our series of patients with post-covid telogen effluvium (PCTE).

Materials & Methods:

A retrospective study was carried out of all the cases that consulted for alopecia in our dermatology clinic during the period between 1/1/22 and 31/12/22. Of these, data from patients with a clinical diagnosis of telogen effluvium and who had a history of covid-19 disease in the previous 6 months were analysed. Data from the physical and trichoscopic examination, demographic data (sex and age), anamnesis (duration of the symptoms and visual analogue scale for the severity of hair loss compared to other previous episodes suffered throughout their life) were collected. Laboratory tests with complete blood count, biochemistry, hepatic and renal profile, vitamin B12, TSH, vitamin D and ferritin were performed.

Results:

A total of 1,250 patients were analysed, of whom 221 (17.7%) met clinical and trichoscopic criteria compatible with PCTE (women: 72%, men: 28%). The mean age was 43.5 years (range: 13-78 years). 65.8% of the patients diagnosed with PCTE did not present any analytical alteration, the most frequent alteration being the presence of vitamin D deficiency (22.3%). 100% of the patients had presented a positive antigen test (94%) or PCR (6%) for SARS-CoV-2. The mean VAS assessment for the severity of the symptoms was 4.3 points (range 3-5). The mean duration of ET was 5.2 months (range: 1.5-6.1). The most frequent trichoscopic findings were decreased capillary density (85%), empty follicles (68.4%) and vellus hairs >20% (67.5%).

Discussion:

Acute telogen effluvium is a non-scarring alopecia characterized by diffuse hair loss lasting less than 6 months, which begins 2-3 months after a triggering factor. Hair loss is the result of a stimulus that suddenly stops the growth phase of the hair follicles (anagen) giving way to the involution (catagen) and resting phases of the follicle (telogen). Within the triggering causes, feverish states, emotional stress, chronic diseases, nutritional alterations, and pharmacological causes have been described. Hair loss has been reported in approximately 20% of patients with COVID-19. Its pathogenesis is not completely clear, but it is suggested that covid-related proinflammatory cytokines lead to premature teloptysis and endothelial inflammation of peripapillary vessels explains hair loss in some post-febrile states. Furthermore, emotional stress and drugs administered to hospitalized patients may play a role.

Conclusion:

It is important that medical staff know this entity in order to give an adequate diagnosis and reduce the levels of psychological stress in patients. We propose the following diagnostic criteria for PCTE: 1) Presence of a positive antigen/PCR test between 1-6 months prior to the appearance of the symptoms. 2) Positive pull test. 3) Analytical studies that rule out another aetiology (blood count, biochemistry, hepatic and renal profile, vitamin B12, TSH, vitamin D, and ferritin). 4) Compatible trichoscopy.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 4548

An atypical diagnosis for a subungual mass

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An atypical diagnosis for a subungual mass

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Introduction:

Molluscum contagiosum is a viral dermatosis common in the pediatric population. It is caused by a virus of the Poxviridae group. The trunk, the back and the limbs represent the usual localizations of this affection. Through this observation, we report a rarely described localization of this infection, occurring in an adult.

Materials & Methods: case report

Mr J, 48 years old, chronic smoker, presented to a dermatology consultation for a painful subungual lesion that had been evolving for 3 months, for which he had been treated as an infection but without improvement. The anamnesis revealed an onychotillomania trouble. Clinical examination revealed a subungual ulceration of the right thumb, surrounded by a hyperkeratotic ring, associated with a pulpitis and a paronychia. Melanonychic bands of mechanical origin were found on all the fingers of the hands with an aspect of koilonychia and onychorrhexis. Dermoscopy showed an ulcerated lesion topped by hemorrhagic crusts. Surgical exploration revealed, after debridement of the crust, an ulceration filled with a whitish fleshy formation. The histological study showed an acanthosis marked by a lobulated and well limited piriform invagination of the epithelium. The squamous cells contained numerous intracytoplasmic viral inclusions giving the classic strawberry bag appearance morphologically corresponding to a subungual molluscum contagiosum. The postoperative course was simple, without recurrence or complications.

Discussion:

Molluscum contagiosum is a common condition, affecting both sexes similarly, and is common in children and immunocompromised adults. It may manifest as single or multiple lesions and is often characterized by spontaneous resolution within weeks to months. Lesions are mainly localized on large surfaces. Only two cases of subungual localization have been reported in the literature. The first was in a 33-year-old female patient, a dermatologist by profession, and the second in a 24-year-old male patient who presented with this lesion on the big toe. In our case, the onychophagia is the main factor which led to the penetration of the virus in the subungual area, explaining the severe pain reported by the patient. Dermoscopy, when the mass is apparent allows to guide the diagnosis, by showing polylobed structures, with fine vessels in peripheral crown. However, the diagnosis is histological and is based on the demonstration of intracytoplasmic viral inclusions. The main differential diagnosis, apart from the etiologies of subungual tumors which can be discussed according to the context and the

associated signs, is subungual wart. The particularities of our case are multiple : the deep subungual location of the lesion, but also the non-evident clinical aspect due to the excessive manipulation.

Conclusion:

This observation shows the interest to consider, among others, the diagnosis of molluscum contagiosum in front of a painful subungual mass, in particular in front of an onychotillomania background.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 4574

Prevalence of onychomycosis in psoriatic nails:a retrospective study of 157 cases

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Introduction & Objectives:

Psoriasis is a common skin disease, with nail involvement in 61% of cases. However, 10% of patients present with isolated nail involvement, which makes diagnosis difficult, particularly its distinction from onychomycosis.

From a clinical point of view, the relationship between these two diseases is all the more important as they have an influence on the clinical management of the patient because the presence of untreated or unidentified fungal agents in the nail bed can increase the severity of nail psoriasis via the Köbner phenomenon which can be the cause of treatment failure.

Objective: Evaluate the prevalence of nail onychomycosis in psoriatic patients and to define the responsible agents and their differences, identified by microscopic analysis and culture.

Materials & Methods:

Retrospective study over 4 years between January 2019 and December 2019 including patients followed up in dermatological consultation for nail psoriasis according to the Nail Psoriasis Severity Index (NAPSI) in whom mycological examination was routinely performed.

Results:

We collected 157 patients, 56% were women and 44% were men with a sex ratio (M/F) of 0.78. The median age was 45.16 years (6-72 years) with a median age of onset of 32.4 years.

Exclusive nail involvement of psoriasis was noted only in 19.1% or 30 cases.

A cutaneous psoriasis was associated in 127 patients, including: 18.47% of palmoplantar keratoderma, 12.1% of scalp involvement, 10.82% of arthropathic psoriasis 14.01% of pustular psoriasis and 25.47% of erythroderma.

The mean NAPSI was 33.8. Systemic treatment was administered in 49.7% (methotrexate in 36.9%, cyclosporine in 7.6%, biotherapy in 5.2%).

The nail abnormalities most frequently found were distal onycholysis in 76.4% (120 cases), subungual hyperkeratosis in 66.8% (105 cases), Beau's line in 60.5% (95 cases), trachyonychia in 56.05% (88 cases), salmon-colored spots on dermoscopy in 19.1% (30 cases), pachyonychia in 26.75% (42 cases), and paronychia in 11.46% (18 cases).

The mycological study of psoriatic nails revealed a positive culture in 33.12% (52 cases), of which 59.6% (31 cases) were dermatophytes exclusively on the toenails (16 cases of *Trichophyton Mentagrophyte* variety *Interdigitalis,* 11 cases of *T. Rubrum*, and 4 cases of *T. Violaceum*). On the other hand, the presence of yeasts was noted in 25% or 13 cases (10 cases of *C. Albicans* on fingernails, and 3 cases of *C. Parapsilosis* on toenails). Moulds were present in 8 cases, including 5 cases on toenails and 3 on fingernails, divided into 5 cases of *Scytalidium sp* and 3 cases of *Aspergillus sp.*

Conclusion:

The various epidemiological studies conducted to estimate the prevalence of onychomycosis in psoriatic patients give ambiguous results, in fact, some authors indicate 79% of psoriatic patients, and others show a low incidence of onychomycosis (15%) in this group. In our study, it is 59.6%.

The pathogenesis of onychomycosis in nail psoriasis is not completely elucidated. In normal nails, the hyponychium protects against the entry of microorganisms, but in psoriatic patients with nail involvement, particularly distal nail bed involvement, this defense is lost, resulting in distal bed onychomycosis.

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BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 4713

A glomus tumor discovered incidentally in onychomycosis: a case report

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Introduction & Objectives:

Glomus tumors are rare benign tumors that most often develop on the fingernails, with toe involvement being even rarer. We report the case of a glomus tumor discovered incidentally after therapeutic avulsion of a toe nail treated for onychomycosis.

Materials & Methods:

Results:

A 66 year old woman, with no medical history, presented with a lesion of the left big toe that had been evolving for several years, painful only when putting on shoes. On admission, the clinical examination revealed a pachyxanthonychia with subungual hyperkeratosis. Onycoschopy revealed spikes, longitudinal striae and a ruin appearance. The mycological examination showed numerous mycelial filaments and the culture was in favour of Trichophyton rubrum. Treatment with terbinafine 250 mg/day was initiated with a good clinical response. After 6 months of treatment, healthy nail growth was noted on the matrix side, distal onycholysis persisted. She was subsequently called for a nail avulsion as an additional treatment. At the time of surgery, a nail bed hypertrophy was discovered which was sensitive to pressure. On dermoscopic examination there was a pinkish glow and branching telangiectasias on the nail bed. On further questioning, the patient reported a slight increase in pain when exposed to cold. An MRI of the nail was ordered which came back in favor of a glomus tumor. Surgical excision was performed and the patient is still under follow-up.

The glomus tumor or angioneuromyoma individualised by Masson is a benign tumor developed at the expense of the subcutaneous glomus which is the organ regulating capillary and thermal microcirculation. The location is mainly subungual (65%) but also pulpal and peri-ungual in the hand. It is rare in the toe nails. On the nail, three sites are retained: the nail bed, the matrix zone and laterally, under the lateral ligament of the distal phalanx. The pain is spontaneous and/or induced by simple contact or touch. It is exacerbated by cold. The search for the exquisite painful area with the tip of a pencil is often positive (Love test). Dermoscopy usually shows a structureless pinkish or bluish area with irregular linear vessels. Histopathologically, Barre et Masson’s glomus tumor grows out of neuromyoarterial tissue and consists of small oval cells forming lobules around vascular cavities. MRI is considered the most sensitive diagnostic test. In short T1 inversion recovery (STIR), it shows an intense hypersignal corresponding to increased blood flow in favor of a glomus tumor. MRI is positive in 86% of cases. Surgical treatment is curative and recurrence is rare.

Conclusion:

It should be remembered that the patient interview remains a key stage in the diagnosis, and it is important to remain vigilant even in the most common clinical cases.

EA DV CONGRESS
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Abstract N°: 4732

Treatment of Androgenetic Alopecia via Androgen Receptor Degradation

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Introduction & Objectives:

Androgenetic alopecia (AGA) is a prevalent disorder that affects around 50% of males over 40 years old. It has been shown that excessive activity of androgen receptor (AR) plays a critical role in exacerbating AGA. Reducing the levels of the AR ligand, dihydrotestosterone (DHT), with oral 5a-reductase inhibitors, has shown clinical efficacy. However, the oral 5a-reductases cause hormal disturbance with high systemic exposure and leads to sexual aversive events and potential reproductive toxicity. In addition, it has been reported that a subclinical chronic T-cell inflammation and a significant oxidative stress contribute to the progression of AGA. There is a high unmet medical need for new treatment with a favorable safety profile and pleiotropic efficacy. We have identified a novel compound, PCS-24777, which displayed activities in promoting AR clearance, lowering anti-oxidative stress and decreasing proinflammatory factors. This study invesitgates the potential of PCS-24777 as a new treatment for AGA in a topical vehicle.

Materials & Methods:

The effect of PCS-24777 as anti-oxidative stress was investigated using a H2O2-induced cell death. The cell viability and the expression of antioxidant proteins were monitored. The effect of PCS-24777 in against T-cell inflammation were evaluated using an *ex vivo* human peripheral blood mononuclear cell (PBMC) model. The human PBMC was stimulated with anti-CD3 and treated with PCS-24777, and the levels of pro-inflammatory factors were quantified.

The effect of PCS-24777 on the levels of AR in the skin was studied*in vivo* in a DHT-treated mouse model. The dorsal hair of C57BL/6 mice at 8-week of age was depilated to synchronize the transition from telogen phase to anagen phase, and the naked skin was co-treated with DHT and PCS-24777. The AR levels in the sebaceous gland and the dermal papillae were quantified by immunohistochemistry. The number of anagenic hair follicles was quantified by H&E stain. The skin colour darkening, indicating the maturation of anagen phase, and the hair regrowth were monitored by photo scoring.

Results:

PCS-24777 mitigated the H2O2-induced apoptosis of neuronal cells by reducing the levels of intracellular peroxide and elevating the expression of antioxidant enzymes, including Nrf2, catalase and SOD2. In *ex vivo* human PBMC stimulated with anti-CD3, treated with PCS-24777 suppressed the expression of several pro-inflammatory factors, such as INFg, IL-1b, IL-2, IL-6, IL-8, IL-10, IL-17A and TNFa.

In the hair growth mice model, PCS-24777 significantly reduced the levels of AR elevated by topical DHT in the sebaceous gland and hair bulb. In addition, PCS-24777 partially rescued the reduction of anagenic hair follicles by DHT. PCS-24777 reversed the DHT-induced delay in skin darkening and hair regrowth.

Conclusion:

We demonstrated that PCS-24777 can reverse the suppression of hair regrowth induced by DHT by reducing AR levels. PCS-24777 has anti-oxidative stress and anti-T-cell inflammation effects in addition to promoting AR

degradation. The results suggest PCS-24777 has a potential for topical treatment of AGA.

EA DV CONGRESS
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Abstract N°: 4742

Epidemiological, clinical, psychological and laboratorial profile of adult females with pattern hair loss using topical minoxidil 5%.

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Introduction & Objectives:

Data regarding the epidemiology, clinics, psichological and laboratorial profile of Female Pattern Hair Loss (FPHL) in South America are scarce and knowledge about the effect of treatment is very limited. This study is on the profile of patients with FPHL in a clinic in Brazil.

Materials & Methods:

FPHL female patients using minoxidil 5% daily continuously for at least 6 months and returning for a new evaluation were invited to answer a questionnaire and repeat trichoscopy. Women with apparent hair and scalp disease, clinical or biochemical evidence of androgen excess and on medications that which would impact hair characteristics were excluded. We divided those women in 2 groups: Group A- 40 years-old or older, Group B- 20-39 years-old.

Results:

In all 16 women were included. Mean age was 42,56 years. 56% of patients had hair loss patterns of grade I, 44% of grade II and none on grade III on the basis of the Ludwig classification. 87% of patients related treatment satisfaction. Besides that, 94% of the patients changed their hair style influenced by their alopecia. 87% of patients considered treatment convenient. We found that there was no difference between the groups on patient's treatment satisfaction or on the way they deal with minoxidil usage. There was a statistically tendency to a little bigger loss perception in the older group than on the younger group (p=0,06). On trichoscopy, we noted a reduction on the number of hair shafts per follicular units (p=0,005), a bigger number of follicular units with only one hair shaft (p=0,02) and a bigger number of patients with scalp pigmentation (p=0,03) on the older group. There was also a tendency to more empty follicles on the older group (p=0,06).

Conclusion:

This study has revealed a great treatment satisfaction with minoxidil, which was not statistically significant according to age group. There was a statistically tendency to a little bigger loss perception in the older group, which can be explained by a reduction on the number of hair shaft per follicular units and a bigger number of follicular units with only one shaft, what also results in a bigger number of patients with scalp pigmentation. There was also a tendency to more empty follicles on the older group, probably because kenogen frequency and duration are greater in androgenetic alopecia.

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Abstract N°: 4795

Trichoscopic and histopathological findings of pemphigus vulgaris with scalp involvement in latino patients from a dermatological center in Mexico, report of 4 cases.

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Introduction & Objectives:

Pemphigus vulgaris is a bullous disease caused by autoantibodies directed at skin and mucosal adhesion molecules, such as desmogleins 1,3; present in keratinocytes and the epithelium of the hair follicle. The clinical presentation begins mainly on mucous membranes and scalp with the appearance of flaccid blisters, scabs and denuded areas. Trichoscopy is a minimally invasive tool useful in the diagnosis of this disease. Previous studies have been conducted in non-Latino populations, so the findings of the following case series are presented.

Materials & Methods:

Digital imaging was performed in four Latino patients with manifestations of pemphigus vulgaris on the scalp with diagnosis confirmed by histopathology and immunofluorescence, using a personal dermatoscope, additionally biopsies were taken to compare trichoscopic findings with histological ones.

Results:

The trichoscopic findings in order of frequency were: yellowish hemorrhagic crusts in 100% of the patients, diffuse whitish scale in 75%, extravasation in 100%, serpiginous vessels in 75% of the patients, white dots with a whitish halo in 50% and oval well-circumscribed yellowish structures in 25% of patients. Histopathologically, the following findings were observed: hyperkeratosis with irregular acanthosis, suprabasal acantholytic blisters, dilated and congested vessels, areas of hemorrhage and acantholytic cells in the granular layer that extend to the follicular epithelium.

Conclusion:

The diagnosis of autoimmune blistering diseases can be a challenge when they occur on the scalp. There are various differential diagnoses, so describing the findings in each entity using trichoscopy is very useful for timely diagnosis, especially in cases with only scalp skin involvement. The present study allows us to give an overview of the findings in the Latin population and compare them with the world literature and describe the trichoscopic findings in our population.

EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 4916

Exploring the therapeutic potential of DHODH inhibitor farudodstat for alopecia areata treatment in a novel ex vivo model of human hair follicle immune privilege collapse

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Introduction & Objectives:

Alopecia areata (AA) is an inflammatory hair disorder characterized by immune privilege (IP) collapse of the hair follicle (HF) bulb, which leads to premature transition to the catagen stage, HF dystrophy, and ultimately results in non-scarring hair loss. IP collapse, marked by elevated major histocompatibility complex (MHC) I and II expression and a reduction in MHCII+ cells, is mainly mediated by elevated IFNγ levels and a Th1-mediated inflammatory response. Interestingly, T cell proliferation, Th1-cell differentiation, and IFNγ production are dependent on the activity of the enzyme dihydroorotate dehydrogenase (DHODH) in proliferating T cells.

Materials & Methods:

Here, we established an innovative AA model in which microdissected healthy human scalp HFs were stimulated*ex vivo* with anti-CD3/CD28 antibodies to activate intra- and peri-follicular T cells via the T cell receptor (TCR) to induce key features of AA, including IP collapse. In this model, we tested whether DHODH inhibition by *farudodstat* could be beneficial for the treatment of AA.

Results:

Experimentally induced TCR activation with anti-CD3/CD28 antibodies resulted in increased numbers of proliferative T cells, which were positively stained by immune cell marker CD3 and proliferation marker Ki-67 in the HF epithelium and mesenchyme. In addition, the model yielded significant upregulation of MHC protein expression in the bulb epithelium and mesenchyme of anagen VI HFs, suggesting loss of IP induced by T cell activation. DHODH inhibition by *farudodstat* protected HFs from the increase of proliferative T cells, induction of MHC I and II proteins, and reduction of MHC II+ cells, which are IP collapse markers in AA. Importantly, DHODH inhibition did not induce cytotoxicity or catagen promotion, nor did it impact hair matrix keratinocytes proliferation or IP markers.

Conclusion:

Our preliminary results show that anti-CD3/CD28 treatment in this *ex vivo* model can successfully stimulate T cell proliferation, which subsequently induces key features of AA including upregulation of MHC I and II as markers of IP collapse. Additionally, our data suggest that *farudodstat* might protect from IP collapse and offer a novel therapeutic approach for AA, which deserves further pre-clinical investigation.

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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 5113

clinical and trichoscopic findings in extensive syphilitic alopecia: report of 2 cases

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Introduction & Objectives: Syphilis is an infectious disease caused by Treponema pallidum that, if left untreated, can progress chronically with periods of activity and latency. Syphilitic alopecia (SA) is an uncommon manifestation of secondary syphilis varying its incidence from 2.9 to 7%. SA is characterized by areas of rarefaction of the pillar stems that can occur concurrently with other classic clinical signs of this disease or in isolation. Classically, there are 3 different clinical patterns described in the literature: 'moth-eaten' alopecia: the most common pattern, regarded as a pathognomonic sign of secondary syphilis; 'diffuse' alopecia: hair loss, resembling acute telogen effluvium which occurs uniformly over the entire scalp; mixed-pattern alopecia: a combination of both previous patterns, in which the 'moth- eaten' alopecia is associated with diffuse hair loss. The objective of this paper is report clinical and trichoscopic findings in two cases of extensive syphilitic alopecia.

Materials & Methods: Patients were recruited for routine care at the Sexually Transmitted Infections and Trichology outpatient clinic in a Dermatology reference center. After confirming the serological diagnosis of syphilis and signing the informed consent form, patients were submitted to anamnesis, clinical examination and dermatoscopy.

Results: In total, two patients with approximately three-month history of hair loss were selected: one male patient and one female patient, aged 18 and 19, respectively. Out of the two cases, only one was classified as symptomatic syphilitic alopecia and both presented alopecia in other areas (hair, arms or eyebrows), as well as mixed pattern syphilitic alopecia. The main dermatoscopic findings were black dots, hypopigmented hairs, tapered hairs and elbow- shaped or angulated hairs with only one sharp angle. The presence of segmented hypopigmented hair and tulip hair in the alopecic areas was also observed in one patient. Both patients had a positive treponemal test and VDRL between 1/256 and 1/512. Treatment with benzathine penicillin was performed in all patients with total repilation after an average of three months of treatment.

Conclusion: Due to the great similarity between syphilitic alopecia and other types of alopecia, especially alopecia areata and telogen effluvium, it is necessary to develop research that elucidates the pathophysiological mechanism involved in this disease and to evaluate the best diagnostic method to correctly identify this type of alopecia. The ever-increasing number of syphilis cases in the world may make rare symptoms of this infection more frequent, so dermatologists should be alert and include it as a differential diagnosis in all patients with extensive hair loss. There are still few published studies on dermatoscopic findings in syphilitic alopecia. This is the first report on angulated hairs, tulip hair, tapered hair and broken hair in eyebrow syphilitic alopecia.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 5117

Health related quality of life and clinical outcomes tools in patients with Alopecia Areata: A Systematic Literature Review

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Introduction & Objectives:

Alopecia Areata (AA) is a common disease with a high impact on the health related quality of life (HRQoL). Comorbidity with other immune diseases is frequent.

The goal of this systematic review was to identify outcomes tools used internationally on the severity of AA, treatment success, and patient-reported outcomes. The volume of validation studies and recommendations for practice in clinical trials and in routine care were assessed.

Materials & Methods:

A systematic search was performed in PubMed for papers published until June 2022. Documentation was adapted from the PROSPERO databse. All publications were reviewed following a structured protocol by two independent raters. Reporting is descripitive and follows PRISMA criteria (Preferred Reporting Items for Systematic reviews and Meta-Analyses for Protocols 2015 (PRISMA-P 2015)).

Results:

Out of k=106 initially retrieved publications, k=87 met the criteria out of which 73 were original papers and 14 systematic reviews. Eighty seven clinical, psychological and health-related quality of life measurement tools were identified. From these, k=3 were not validated and k=3 did not provide sufficient data on validation. In total, 8 AA specific and 16 non-specific HRQoL instruments were identified. The most frequently used were the Dermatology Life Quality Index (DLQI) (n=24) and the Short Form Health Survey 36 Item Version (SF-36) (n=12). Out of the specific HRQoL instruments the Alopecia Areata Symptom Impact Scale (AASIS) (n=9) was the most commonly used. Of all clinical intruments the Severity of Alopecia Tool (SALT) (n=24) was most frequently applied. In terms of outcomes, significant losses of HRQoL were identified.

Conclusion:

The data shows an extensive impact of AA on HRQoL of patients with AA. The dual inclusion of patient-relevant and clinical outcomes tools is essential in AA management.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 5133

The requirement to monitor low dose oral minoxidil in the management of hair loss

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Introduction & Objectives:

Low-dose oral minoxidil (LDOM) can safely and effectively treat numerous hair disorders. Standard doses range from 0.625mg to 5 mg daily titrated against clinical effectiveness, blood pressure response and reported side effects of hypertrichosis, peripheral oedema, and palpitations. Some clinicians advocate routine monitoring of patients treated with LDOM. However, there is limited evidence on whether minoxidil in such small doses adversely impacts patients with normal hemodynamic and biochemical baseline profiles.

This study aimed to evaluate the safety of oral minoxidil and the need for regular monitoring of patients treated with LDOM.

Materials & Methods:

This study is a retrospective analysis of patients treated with LDOM in a tertiary hair clinic between April 2017 - June 2020 who had at least one follow-up visit recorded. The clinical and laboratory parameter were assessed every six months. On commencing LDOM, baseline blood pressure, heart rate, and weight were recorded, and renal and liver functions tests performed. All recruited patients had normal baseline renal and liver function.

Results:

Eighty-one patients (median age 49 (range 10-77)) were identified for analysis with follow-up data up to 44 months on treatment. Thirty-four patients reported side effects, with hypertrichosis (n=17) and palpitations (n=3) being the most reported adverse effects. Thirteen patients discontinued treatment, nine due to the side effect profile, and four due to patient choice (n=1 pregnancy, n=1 flare of underlying lupus, n=1 inadequate response, n=1 content with cosmetic appearance).

Data was analysed using graphical exploration and a series of mixed models. The heart rate, weight, renal function (creatinine, urea, eGFR), and liver function (ALT, bilirubin, Alkaline Phosphatase) appeared stable throughout the treatment course. Some measures (weight and eGFR) showed a trend to increase over time; although, these findings were not statistically significant for any of the outcomes.

Conclusion:

The review did not identify a clear deterioration in renal or liver function in monitoring low-dose oral minoxidil. Heart rate, blood pressure, and weight were not significantly adversely impacted during this review period. These data support the position that regular monitoring is not required during treatment in asymptomatic patients with normal baseline values.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 5631

New markers of cardiovacular risk and systemic inflammation in alopecia areata: hematological parameters and pulse wave velocity.

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Introduction & Objectives: Evidence supports the possibility that alopecia areata (AA) is associated with endothelial dysfunction and a systemic proinflammatory state, which converge in an increased cardiovascular risk. Recent studies have shown that hemogram parameters such as the systemic immunity-inflammation index (SII) and the neutrophil/lymphocyte ratio (NLR) are related to greater systemic inflammatory activity. On the other hand, the estimation of peripheral vascular resistance by pulse wave velocity (PWV) has been shown to be useful as a marker of cardiovascular risk. However, there is little experience with these parameters in patients diagnosed with AA.

The aim of this study is to evaluate the association of SII and NLR scores, as well as PWV, with other markers of cardiovascular risk and inflammatory activity in patients with AA, and to explore the clinical factors associated with them.

Materials & Methods: Cross-sectional study, in which PWV was obtained using the Mobil-O-Graph-PWA® pulse wave meter and hemogram parameters to obtain SII and NLR. Clinical and cardiovascular risk data were collected, including insulin resistance parameters, metabolic syndrome criteria, inflammation parameters, and accumulated smoking (pack-year index). Disease severity was assessed using SALT (Severity of Alopecia Tool) score.

Results: Forty-eight patients were included, 77% (37/48) were women and the mean age was 39 years (14.6). The mean SALT was 39.22 (39). A statistically significant positive association was found between NLR and SII indices and serum concentrations of C-reactive protein (CRP) and insulinemia. PWV was significantly associated with pack-year index, SALT, and CRP values. The analysis also reflected associations close to statistical significance between SII, NLR, PWV and other analytical markers related to lipid metabolism and insulin resistance.

Conclusion: Disease severity is related to cardiovascular risk in patients with AA. The use of hematologic markers of inflammation and measurement of PWV is easily reproducible and could be useful in the assessment of cardiovascular risk and systemic inflammation status in patients with AA.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 5667

Folliculitis decalvans and lichenplanopilaris phenotypic spectrum

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Introduction & Objectives:

Folliculitis decalvans (FD) and lichenplanopilaris (LPP) are two distinct types of alopecia. FD is described as a neutrophilic cicatricial alopecia, which mainly presents with follicular tufts and pustules. Whereas LPP is classified as a lymphocytic cicatricial alopecia presenting with peri-follicular scaling and erythema. 1

During the active phase, FD and LPP may present with biphasic clinical and histological findings subsequently producing a clinical diagnostic challenge for dermatologists.

Materials & Methods:

A 65year old female presented with a 4 year history of hair loss, whom thinks that started after treatment with 5 fluorouracil cream for actinic keratoses on the scalp. She also reports itching. She has a background of spasmodic dystonia and she is not on any medication.

On clinical examination there is a large area of scarring alopecia affecting the frontal scalp and vertex associated with prominent crusting in some areas. On trichoscopy there is peri-follicular scaling and erythema as well as crusting in some areas but not pustules. Eyebrows were intact.

Two punch biopsies were performed in line with the scarring alopecia protocol. Histopathology findings of a skin biopsy revealed follicular tufting with loss of sebaceous glands. 14 hair follicles were in anagen phase. No evidence of a vacuolar-interface change or of a lichenoid cell infiltrate of the interfollicular epidermis. There was perifollicular lymphoid cell infiltrate with perifollicular and interfollicular fibrosis. No peribulbar inflammatory cell infiltrate was seen. PAS is negative for fungal hyphae and basement membrane zone thickening and EVG elastic stain highlights the fibrous tracts and demarcates the perifollicular fibrosis. Colloidal iron highlights the perifollicular mucinous fibrosis.

Results:

The clinical and histological changes were consistent with a scarring alopecia with overlap features of lichen planopilaris and folliculitis decalvans.

She was commenced on hydroxychloroquine of 200mg once daily with fucidic acid/ betamethasone cream twice a day and awaiting her follow up.

Conclusion:

FD-LPP phenotypic spectrum are seldom reported only in small case series2,3 and is hypothesised to be secondary microbiome dysbiosis leading to abnormal hair follicle inflammatory response and destruction of hair follicle 2 It has been characterised by the presence of pustules, crusts, follicular tufts, perifollicular erythema, perifollicular scales, and cicatricial alopecia which involved a combination of histological features of FD and LP.4

It is important for dermatologists and histopathologists to be aware of the evolving FD-LPP spectrum especially in cases with a mixed presentation to aid in prompt diagnosis and subsequently optimize treatment with systemic

antimicrobials, anti-inflammatory and immunomodulatory therapies3.

References

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 5712

Efficacy and Safety of topical KX-826 in Adult Male Subjects with Androgenetic Alopecia in China: A Multicenter, Randomized, Double-blind, Placebo-controlled Phase II Study

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Introduction & Objectives: Androgenetic alopecia (AGA), also known as male pattern hair loss, is the most common hair loss disorder among male patients with alopecia. KX-826 is a novel androgen receptor AR antagonist, which can inhibit the physiological activity of AR, has potential to become an effective clinical drug to treat AGA. The purpose of this study was to evaluate the efficacy and safety of KX-826 in the treatment of male subjects with AGA.

Materials & Methods: Total 120 male subjects with mild-to-moderate AGA (Norwood-Hamilton classification type IIIv, IV, V) were enrolled, and randomized at a ratio 1:1:1:1 to KX-826 0.25% concentration twice daily (BID) group, KX-826 0.5% once daily (QD) group, KX-826 0.5% BID group(n=30, per group) and matched placebo groups (placebo QD group, n=10; placebo BID group, n=20) were administered topically for 24 weeks. The primary efficacy endpoint was the mean change from baseline in target area non-vellus hair count (TAHC) at week 24 in comparison to that treated with placebo. The secondary efficacy endpoint was the change from baseline in hair growth assessment (HGA) at week 6, 12, 18, 24, including patient self-assessment, investigator assessment, and third-party professional physician assessment, as well as change from baseline in TAHC at week 6, 12, 18, change from baseline in non-vellus hair diameter (width) in the target area (TAHW) at week 6, 12, 18, 24.

Results: 120 subjects were treated with topical KX-826 for 24 weeks. The least square mean (LSM)changes from baseline in TAHC at week 24 of KX-826 0.5% BID group was 22.89 hairs/cm2, with a significant increase of 15.34 hairs/cm2 compared with placebo BID group (7.54 hairs/cm2, *P*=0.024). Sensitivity analysis of the primary efficacy endpoint showed consistent results. The least square mean changes from the baseline in the KX-826 0.25% BID group and 0.5% QD group increased by 9.38 hairs/cm2 and 4.96 hairs/cm2 in TAHC at week 24, respectively, compared with the placebo BID and QD group. All groups had TAHW improvement at week 6, 12, 18, 24 compared with baseline, but no significant difference between groups. All KX-826 treatment groups had numerically better HGA improvement at week 6, 12, 18, 24 as compared to placebo QD/BID group, although did not reach statistical significance. 59.3% of subjects experienced at least one treatment-emergent adverse events (TEAE). The incidence of adverse drug reactions (ADR) was 16.1%, pruritus (5.9%) was the most common ADR, followed by contact dermatitis (2.5%). AEs leading to dose reduction occurred in three subjects, including grade 1 contact dermatitis, grade 2 rash and grade 1 pruritus. One subject had grade 4 hypertriglyceridemia but had a higher baseline triglyceride value (6.99 mmol/L). No serious AE or death occurred during study or lead to treatment discontinuation.

Conclusion: For male subjects with AGA (Norwood-Hamilton classification type IIIv, IV, V), KX-826 was well tolerated and 0.5% BID group was significantly increased in TAHC at week 24 in comparison with that of the placebo group. Sensitivity analysis of the primary efficacy endpoint was consistent. The results will be further

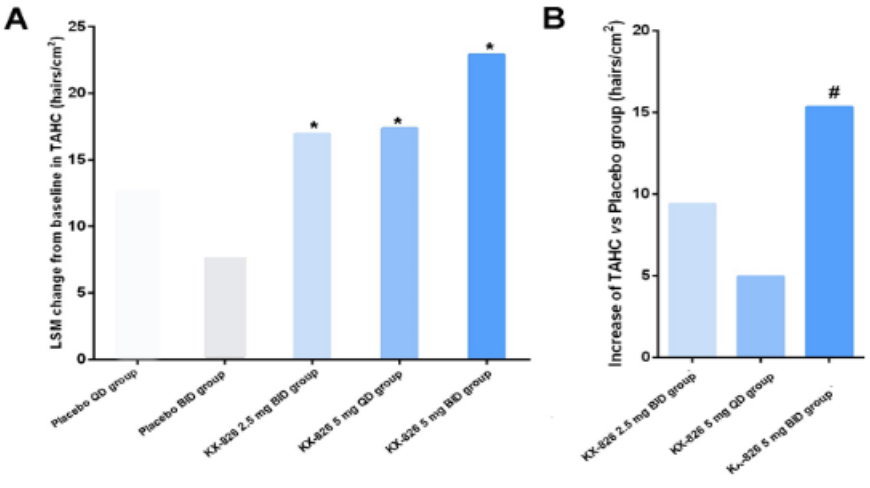
confirmed in a registration Phase III study.

Table 1. Demographic and baseline characteristics of all subjects

Characteristics	Placebo QD group (n=10)	Placebo BID group (n=20)	KX-826 0.25% BID group (n=30)	KX-826 0.5% QD group (n=30)	KX-826 0.5% BID group (n=30)	Total (n=120)
Age (years)	37.0±6.13	34.2±7.55	36.9±7.92	34.4±7.76	36.1±9.57	35.6±8.09
Ethnic, n (%)						
Han	10 (100.0)	18 (90.0)	30 (100.0)	30 (100.0)	29 (96.7)	117 (97.5)
Other	0	2 (10.0)	0	0	1 (3.3)	3 (2.5)
Weight (kg)	75.85±13.516	77.18±10.890	73.03±7.159	74.57±7.749	75.87±11.470	75.05±9.695
Height (cm)	172.90±4.040	172.05±4.872	173.00±5.480	173.13±5.994	173.32±5.112	172.95±5.258
BMI (kg/m^2)	25.37±4.509	26.03±3.147	24.40±2.083	24.90±2.448	25.23±3.401	25.08±2.958
Smoking, n (%)	3 (30.0)	7 (35.0)	10 (33.3)	8 (26.6)	9 (30)	37 (30.8)
Hamilton Norwood Classification, n (%)						
IIIv	2 (20.0)	10 (50.0)	12 (40.0)	20 (66.7)	11 (36.7)	55 (45.8)
IV	2 (20.0)	4 (20.0)	12 (40.0)	8 (26.7)	11 (36.7)	37 (30.8)
V	6 (60.0)	6 (30.0)	6 (20.0)	2 (6.7)	8 (26.7)	28 (23.3)

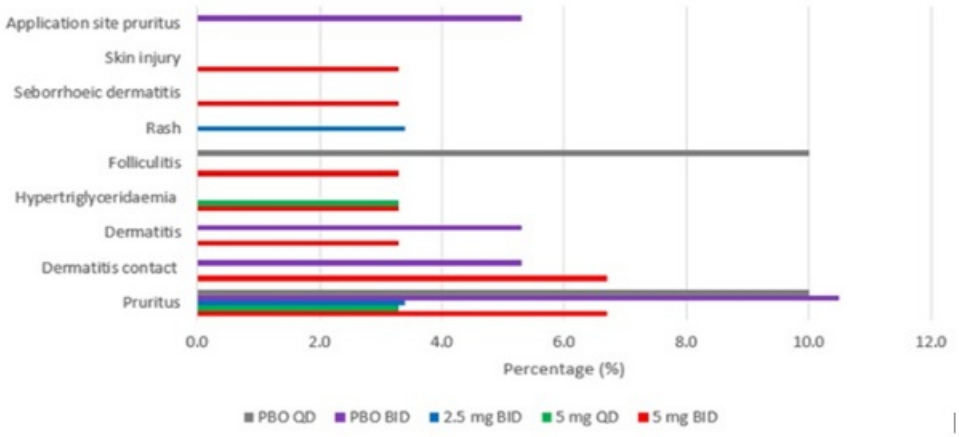
Abbreviations: BMI, body mass index.

Figure 1. (A) The least square mean (LSM) change from baseline in target area hair count (TAHC) at week 24 of all group. (B) The increase of LSM change from baseline in TAHC at week 24, which compared with that of placebo group. LSM, least square mean; *P<0.05 vs. baseline; #P<0.05 vs. placebo group (an increase of 15.34 hairs/cm^2 in KX-826 0.5% BID group compared with placebo BID group).



QD, once daily; BID, twice daily

Figure 2. Bar plot of drug-related adverse events by preferred term (Safety analysis set).



PBO: placebo; QD, once daily; BID, twice daily

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 5713

Efficacy and Safety of Different Doses of Topical KX-826 on Female Pattern Hair Loss: A Multicenter, Placebo-controlled, Double-blinded, Randomized Phase II Study

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Introduction & Objectives:

Female pattern hair loss (FPHL) is a common cause of non-scarring alopecia in women. Androgen and its receptors are considered contributory to cause of FPHL. KX-826 (Pyrilutamide) is a novel investigational androgen receptor (AR) antagonist, developed to locally block the androgen-mediated signal by competing with the biding of the androgen to AR instead of reducing androgen level systemically. Whether a topical non-steroidal anti-androgen (NSAA) like KX-826 can treat this with acceptable side effect profile is yet to be confirmed.

Materials & Methods:

This was a phase II, randomized, double-blind, placebo-controlled, multicenter clinical study conducted in China only. 160 women aged at least 18 years with FPHL (grade D3 to D6 on the Savin Density Scale) were randomly assigned in 1:1:1:1:1 ratio to different dosage of drugs or matched placebo groups, once daily (QD) or twice daily (BID) (Subject CONSORT is listed with Figure 1). Subjects applied 1ml (7 sprays) of assigned solution for continuing 24 weeks.

The primary efficacy endpoint was the mean change from baseline in target area non-vellus hair count (TAHC) at week 24 in comparison to that treated with placebo. The secondary efficacy endpoints were the change from baseline in hair growth assessment (HGA) at week 6, 12, 18, 24, which included subject self-assessment and investigator-assessment, change from baseline in TAHC at week 6, 12, 18, and change from baseline in non-vellus hair diameter (width) in the target area (TAHW) at week 6, 12, 18, 24.

Results:

From November 2021 to November 2022, 16 sites from China contributed 160 subjects, subjects' demography information is listed in Table 1.

After 24 weeks treatment, 0.5% concentration QD KX-826 exhibited statistically significant increase in TAHC compared to that of placebo (11.14 haris/cm2 vs -3.04 haris/cm2, p=0.0087); 0.25% QD KX-826 group was superior in TAHC at week 24, but no statistically significance. No dramatical change was noticed in KX-826 BID groups compared to placebo (Table 2A). 0.5% QD KX-826 group also showed statistically significant improvement in TAHW compared to that of placebo at week 12 and 24 (0.61 vs -0.03, p=0.0291 at week 12; 0.71 vs 0.06, p=0.0387 at week 24). No significant HGA improvement or change was shown among any groups (Table 2B).

KX-826 was well tolerated, most treatment emergent adverse events (TEAEs) were mild-to moderate severity. Total of 115 (72.3%) subjects experienced 400 TEAEs. The highest incidences of TEAEs were skin and subcutaneous tissue diseases, infection and infestation diseases, and abnormal various laboratory examinations. The most reported drug related TEAEs were both contact dermatitis and itching (Table 3). There were two SAEs, neither was deemed related to the test drug or treatment. No TEAEs required cessation of treatment or leading to death. In addition, types of TEAEs were similar among the different dosage groups, and there was no significant difference in the safety of each group compared with the matched placebo, majority types and severity of the TEAEs were predicted to occur before the study. Overall the safety and tolerance of KX-826 in FPHL were good.

Conclusion:

With different mechanism to minoxidil, spironolactone or finasteride, topical AR antagonist KX-826 does not decrease production of hormones, current 0.5% QD regimen of KX-826 on FPHL showed promising results and was well tolerated, deserves further evaluation.

Figure 1: Study Subject CONSORT

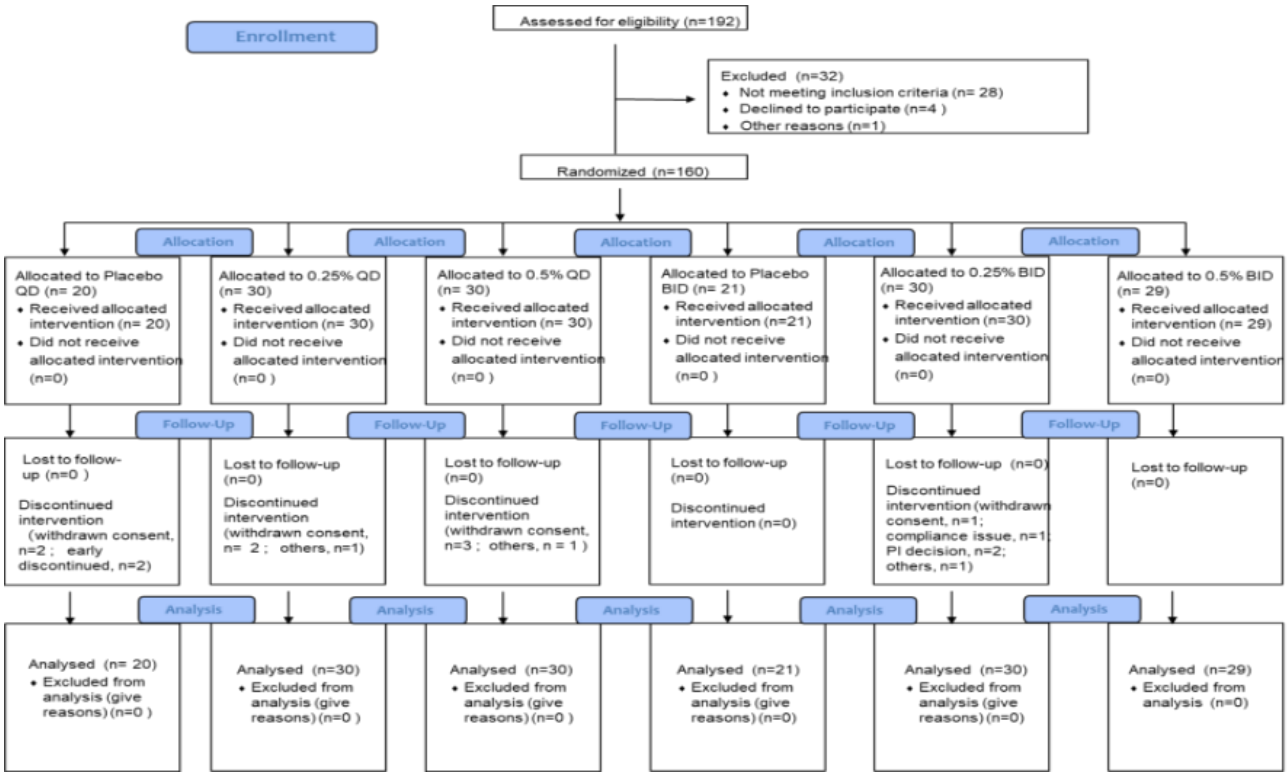

Table 1: Demographics and Baseline Disease Characteristics- All Randomized Subjects

	Placebo QD (N=20)	0.25% QD (N=30)	0.5% QD (N=30)	Placebo BID (N=21)	0.25% BID (N=30)	0.5% BID (N=29)	All (N=160)
Age, mean ± SD, years	31.3 (5.77)	30.3 (5.67)	31.8 (6.30)	32.3 (7.99)	31.4 (6.61)	30.0 (5.74)	31.1 (6.29)
Ethnicity-Han	18 (90.0)	30 (100)	30 (100)	20 (95.2)	29 (96.7)	28 (96.6)	155 (96.9)
Ethnicity: others	2 (10.0)	0	0	1 (4.8)	1 (3.3)	1 (3.4)	5 (3.1)
Height, mean ± SD, cm	161.30 (5.895)	161.95 (5.969)	160.40 (4.600)	161.57 (4.249)	160.38 (5.847)	161.77 (6.616)	161.20 (5.582)
Weight, mean ± SD, Kg	56.951 (7.397)	61.547 (11.068)	59.568 (8.304)	59.501 (7.761)	58.447 (8.082)	57.645 (12.346)	59.044 (9.488)
Savin Grade							
D3	17 (85.0)	23 (76.7)	21 (70.0)	18 (85.7)	20 (66.7)	17 (58.6)	116 (72.5)
D4	3 (15.0)	6 (20.0)	8 (26.7)	2 (9.5)	9 (30.0)	8 (27.6)	36 (22.5)
D5	0	1 (3.3)	1 (3.3)	1 (4.8)	0	4 (13.8)	7 (4.4)
D6	0	0	0	0	1 (3.3)	0	1 (0.6)
Duration of FPHL, mean ± SD, days	24.3 (76.58)	71.1 (169.84)	20.4 (70.36)	5.8 (10.47)	38.4 (138.04)	119.1 (546.00)	48.9 (248.73)

Female pattern hair loss (FPHL)
Twice daily = BID
Once daily = QD

Table 2A: Analysis of Primary Efficacy Endpoint (TAHC at Week 24 compared to baseline)-Safety Population

	Placebo QD	0.25% QD	0.5% QD	Placebo BID	0.25% BID	0.5% BID
N	20	30	29	21	29	29
Baseline, Mean (SD)	105.83 (23.608)	100.81 (20.708)	96.17 (24.291)	103.38 (29.026)	96.82 (27.102)	96.81 (26.164)
Week 24, Mean (SD)	102.79 (21.954)	106.43 (19.115)	106.09 (20.766)	109.90 (23.289)	100.56 (30.134)	99.34 (21.556)
Change from Baseline at Week 24, Mean (SD)	-3.04 (13.245)	5.61 (13.174)	11.14 (15.128)	6.52 (21.414)	3.47 (16.432)	2.53 (17.89)
ANCOVA Model						
LS Mean (SE)	-1.20 (3.292)	6.00 (2.678)	10.19 (2.727)	7.65 (3.205)	2.70 (2.726)	1.77 (2.726)
Difference of LS Means (95% CI)		7.21 (-1.170, 15.581)	11.39 (2.921, 19.858)		-4.95 (-13.272, 3.375)	-5.89 (-14.210, 2.436)
P value		0.0912*	0.0087*		0.2420#	0.1643#

Unit of TAHC: hairs/cm^2
N = Number of Subjects; SD = Standard Deviation; ANCOVA = Analysis of Covariance; LS Mean = Least-Square Mean; SE = Standard Error; CI = Confidence Interval.
ANCOVA Model: The ANCOVA model includes change from baseline in TAHC at Week 24 as dependent variable, baseline TAHC as covariate and treatment as fixed factors.
* p values of the pairwise comparison with Placebo QD group; # p values of the pairwise comparison with Placebo BID group.

Table 2B: Analysis of Secondary Efficacy Endpoints by Analysis Visits-Safety Population

							P value Comparison with Placebo QD		*P* value Comparison with Placebo BID	
	Placebo QD	0.25% QD	0.5% QD	Placebo BID	0.25% BID	0.5% BID	0.25% QD	0.5% QD	0.25% BID	0.5% BID
TAHC (hairs/cm^2), LS Mean (SE)										
Week 6	1.51 (3.208)	4.65 (2.743)	5.18 (2.696)	5.71 (3.359)	2.84 (2.799)	5.36 (2.694)	0.4573	0.3839	0.5129	0.9353
Week 12	0.33 (3.172)	3.35 (2.877)	9.48 (2.821)	10.46 (3.329)	0.46 (2.879)	2.95 (2.830)	0.4812	0.0337	0.0250	0.0892
Week 18	1.83 (3.135)	3.24 (2.786)	10.51 (2.785)	6.39 (3.119)	1.14 (2.975)	4.68 (2.920)	0.7367	**0.0409**	0.2265	0.6901
TAHW (mm/cm^2), LS Mean (SE)										
Week 6	0.15 (0.235)	0.13 (0.202)	0.56 (0.198)	0.19 (0.247)	0.01 (0.206)	0.22 (0.198)	0.9484	0.1853	0.5827	0.9093
Week 12	-0.03 (0.217)	0.12 (0.197)	0.61 (0.193)	0.53 (0.228)	0.00 (0.198)	0.12 (0.194)	0.5966	**0.0291**	0.0857	0.1783
Week 18	0.31 (0.248)	-0.08 (0.222)	0.92 (0.221)	0.32 (0.248)	-0.03 (0.237)	0.13 (0.231)	0.2431	0.0693	0.3169	0.5796
Week 24	0.06 (0.240)	0.21 (0.192)	0.71 (0.199)	0.46 (0.223)	0.01 (0.200)	-0.06 (0.195)	0.6381	**0.0387**	0.1407	0.0852
Patient HGA Success Rate, n (%)										
Week 6	7 (35.0)	13 (46.4)	14 (48.3)	10 (50.0)	14 (46.7)	14 (48.3)	0.4285	0.3560	0.8172	0.9055
Week 12	12 (60.0)	15 (53.6)	12 (44.4)	8 (40.0)	10 (34.5)	14 (51.9)	0.6580	0.2915	0.6938	0.4208
Week 18	12 (60.0)	15 (53.6)	15 (55.6)	8 (38.1)	11 (44.0)	16 (64.0)	0.6580	0.7606	0.6854	0.0798
Week 24	13 (72.2)	17 (60.7)	14 (53.8)	10 (47.6)	11 (42.3)	18 (66.7)	0.4238	0.2184	0.7158	0.1842
Investigator HGA Success Rate, n (%)										
Week 6	7 (35.0)	10 (37.0)	11 (37.9)	7 (38.9)	11 (40.7)	10 (37.0)	0.8857	0.8343	0.9011	0.9001
Week 12	9 (45.0)	10 (41.7)	12 (46.2)	9 (50.0)	9 (36.0)	11 (44.0)	0.8241	0.9379	0.3586	0.6972
Week 18	11 (57.9)	14 (56.0)	13 (52.0)	13 (65.0)	10 (43.5)	15 (65.2)	0.9000	0.6973	0.1582	0.9881
Week 24	13 (72.2)	18 (64.3)	17 (65.4)	12 (57.1)	11 (42.3)	17 (63.0)	0.5752	0.6321	0.3118	0.6825

LS Mean (SE) and p values for TAHC and TAHW were calculated based on the ANCOVA Model which includes change from baseline in TAHC at Week 6/12/18/24 as dependent variable, baseline TAHC as covariate and treatment as fixed factors.
HGA success rate: the proportion of the subjects whose HGA score was at least 1.
P values of the comparison of the patient/investigator HGA success rate were based on Pearson Chi-square test.

Table 3: Summary of TEAE and Drug-related TEAE—Safety Population

	Placebo QD (N=20) n (%), E	0.25% QD (N=30) n (%), E	0.5% QD (N=29) n (%), E	Placebo BID (N=21) n (%), E	0.25% BID (N=30) n (%), E	0.5% BID (N=29) n (%), E	All (N=159) n (%), E
TEAEs	13 (65.0), 75	20 (66.7), 50	22 (75.9), 71	15 (71.4), 58	22 (73.3), 78	23 (79.3), 68	115 (72.3), 400
contact dermatitis	1 (5.0), 41	1 (3.3), 1	5 (17.2), 19	3 (14.3), 7	2 (6.7), 12	3 (10.3), 3	15 (9.4), 83
itching	1 (5.0), 1	0	1 (3.4), 1	3 (14.3), 13	3 (10.0), 4	1 (3.4), 11	9 (5.7), 30
upper respiratory infection	1 (5.0), 1	3 (10.0), 4	1 (3.4), 1	2 (9.5), 3	2 (6.7), 4	3 (10.3), 3	12 (7.5), 16
urinary tract infection	1 (5.0), 2	2 (6.7), 2	1 (3.4), 2	2 (9.5), 3	2 (6.7), 2	1 (3.4), 1	9 (5.7), 12
hyperuricemia	1 (5.0), 1	1 (3.3), 1	1 (3.4), 1	1 (4.8), 1	3 (10.0), 3	1 (3.4), 1	8 (5.0), 8
Drug-related TEAE	4 (20.0), 44	5 (16.7), 6	8 (27.6), 23	8 (38.1), 24	4 (13.3), 18	6 (20.7), 20	35 (22.0), 135
contact dermatitis	1 (5.0), 41	1 (3.3), 1	4 (13.8), 18	3 (14.3), 7	2 (6.7), 12	3 (10.3), 3	14 (8.8), 82
itching	1 (5.0), 1	0	1 (3.4), 1	3 (14.3), 13	2 (6.7), 3	1 (3.4), 11	8 (5.0), 29
skin lesions	0	1 (3.3), 1	1 (3.4), 1	0	0	1 (3.4), 2	3 (1.9), 4
dandruff	0	1 (3.3), 1	0	1 (4.8), 1	0	1 (3.4), 3	3 (1.9), 5
Seborrheic dermatitis	1 (5.0), 1	0	0	1 (4.8), 1	1 (3.3), 1	0	3 (1.9), 3
erythema	0	0	0	0	1 (3.3), 2	0	1 (0.6), 2
dermatitis	0	1 (3.3), 1	0	0	0	0	1 (0.6), 1
Seborrhea	0	0	1 (3.4), 1	0	0	0	1 (0.6), 1
Elevated blood prolactin	0	1 (3.3), 1	0	1 (4.8), 1	0	0	2 (1.3), 2
Elevated blood testosterone	0	0	2 (6.9), 2	0	0	0	2 (1.3), 2

Abnormal blood thyroid stimulating hormone	1 (5.0), 1	0	0	0	0	0	1 (0.6), 1
Headache	0	0	0	1 (4.8), 1	0	0	1 (0.6), 1
Dizziness	0	0	0	0	0	1 (3.4), 1	1 (0.6), 1
Folliculitis	0	1 (3.3), 1	0	0	0	0	1 (0.6), 1
All TEAE	13 (65.0), 75	20 (66.7), 50	22 (75.9), 71	15 (71.4), 58	22 (73.3), 78	23 (79.3), 68	115 (72.3), 400
1 Mild	10 (50.0), 72	15 (50.0), 38	12 (41.4), 47	8 (38.1), 46	13 (43.3), 62	13 (44.8), 55	71 (44.7), 320
2 Moderate	3 (15.0), 3	5 (16.7), 12	9 (31.0), 23	6 (28.6), 11	9 (30.0), 16	10 (34.5), 13	42 (26.4), 78
3 Severe	0	0	1 (3.4), 1	0	0	0	1 (0.6), 1
4 Potentially Life-threatening	0	0	0	1 (4.8), 1	0	0	1 (0.6), 1
5 Death	0	0	0	0	0	0	0

Note: N represents the number of people in the safety analysis set under this group; n (%) represents the number and percentage of subjects with corresponding AEs;
E represents the number of events with corresponding AEs.
Summary of TEAEs by MedDRA System Organ Class and Preferred Term (**overall incidence >2%**) – Safety Analysis Set

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Abstract N°: 5803

Trichoscopy evolution in a patient diagnosed with discoid lupus erythematosus alopecia

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Introduction & Objectives:

Scarring alopecias are a challenging group of scalp disorders characterized clinically by loss of follicular ostia and histopathologically by replacement of hair follicles with fibrous tissue. Primary cicatricial alopecias present a folliculocentric inflamatory process that ultimately results in the destruction of the hair follicle and ireversibile hair loss. They are subdivided by predominant cells type: lymphocytes ,neutrophils or mixed, thus histopatology plays a pivotal role for a correct diagnosis.

Materials & Methods:

Results:

A 45 year old female referred to our outpatient clinic for a singular, smooth, oval-shaped, midline frontoparietal alopecia patch,atrophic,with unclear borders, 3/1 cm in size, alongside pruritus and absence of systemic symptoms. The lesion first appeared 6 weeks prior, after sun exposure, gradually increasing in size. The patient had no relevant medical history, no chronic illnesses, no prior medical or hair treatments. During trichoscopy, notable features identified consisted of absence of follicular openings, structureless pink areas and fine scaling, all signs of recent onset of fibrosis, alongside thick arborizing vessels, scattered brown skin discoloration and perifollicular scalling. The patient was suspected of discoid lupus erythematosus. Blood test revealed normal C3, High C4, negative ANA and anti-dsDNA. A punch biopsy was performed and its histopathological result consisted of atrophic epidermis with vacuolar degeneration of the basall cell layer, thickening of the basal membrane and moderate lymphoyctic infiltrate in the dermis. All findings strongly suggested scarring alopecia in the context of chronic cutaneous lupus.

The patient underwent bridge therapy treatment with oral corticosteroids tapered over the first 8 weeks, Hydroxychloroquine and Topical Minoxidil. Trichoscopy was done every 12 months . The evolution of the disease was accurately proved through strong dermoscopy marks of inactive DLE, such as the “red spider in a yellow dot sign” and other specific emphasized signs of DLE. Following the treatment, the alopecic patch no longer increased in size.

However, due to the localised hair loss, the patient reported a signficant decrease in the quality of life, thus surgical excision therapy was performed in collaboration with the plastic surgery unit. At the moment, the patient’s DLQI has shown an impressive increase.

Conclusion:

In conclusion, when treating patients with scarring alopecias, there is a need of multidisciplary approach between different specialties. Histopathology paves the way for a correct diagnosis. The importance of trichoscopy should always be acknowledged, as it proves its worth for diagnosis and evolution of the disease. A lot of patients with scarring alopecias have a low quality of life due to their illness, thus doctors should take into account to discuss the patient’s expectations for the treatment and the possibility of surgical treatment.

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Abstract N°: 5827

Lichen planopilaris in a patient with ichthyosis vulgaris – a rare co-existing and diagnostic challenge. Case report.

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Introduction & Objectives:

Materials & Methods:

Results:

Lichen planopilaris (LPP) is a primary lymphocytic scaring alopecia presenting with variable degrees of scaling and perifollicular erythema. Erythema and scaling are common features of many skin diseases and often have nonspecific view. Co-existence of two scaling conditions on the scalp could be quite a challenge for diagnosis. In addition, early presentation of LPP could also mimic androgenetic alopecia and is often misdiagnosed. We present a LPP case in a patient with ichthyosis vulgaris and discuss some tricks of clinical examination and the role of trichoscopy in diagnostics.

A 64-year-old female with grey hair and Fitzpatrick I skin phototype reported more than 5-year history of hair loss without skin sensations. It is her first visit for hair loss complaints, but she has been followed up by a dermatologist with diagnosis of ichthyosis vulgaris since her childhood. Physical examination revealed diffuse pattern alopecia predominantly at the vertex and parietal scalp with no noticeable patches. Skin of the scalp with slight white lamellar scaling and subtle perifollicular erythema. Body skin is dry with diffuse mild lamellar scaling especially in lower legs and forearms. The pull-test is negative.

Dry trichoscopy with polarization revealed decreased hair density with absence of follicular openings, mild peripilar hyperkeratosis with perifollicular erythema around some hair. A biopsy with trichoscopy control was performed. Calming scalp lotion with urea was recommended as the first treatment step. Its application helped to better visualise dynamics of perifollicular erythema at subsequent visits in order to assess the treatment effectiveness. Histopathology revealed epidermis with orthohyperkeratosis and agranulosis. Reduced number of terminal hairs, epidermal atrophy of follicular ostia, sebaceous glands atrophy, concentric perifollicular fibrosis, mild dermal inflammatory lymphocytic infiltrate were also observed. We diagnosed a co-existing LPP and ichthyosis vulgaris. Therapy included intralesional injections of triamcinolone acetonide monthly no.4.

Conclusion:

We have demonstrated a rare case of co-existing LPP and ichthyosis. Trichoscopy helped to suspect early manifestation of scaring alopecia and choose the place for biopsy. Application of an emollient could be beneficial for pathological sign visualisation and treatment control.

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Abstract N°: 5904

Onychomatricoma with atypical presentation: About a case

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Introduction :

Onychomatricoma is a rare fibroepithelial tumor of the nail matrix. It is characterized by thickening, longitudinal and transverse hypercurvature of the tablet and xanthonychia. We describe a misleading and atypical presentation of an onychomatricoma

Observation :

A 40-year-old patient who consulted for a deformity of the right thumbnail evolving for 2 months. On examination, onychogriphosis with longitudinal hypercurvature of the right thumb associated with splitting of the nail plate and chromonychia. On dermoscopy: presence of white and parallel finger-like longitudinal lines, filiform hemorrhages and thickening of the free edge of the nail. We suspected onychomatricoma. The diagnosis was confirmed intraoperatively by the discovery of a digitiform tumor implanted in the nail matrix. Nail excision biopsy confirmed the diagnosis.

Discussion :

Our case illustrates an unusual and misleading clinical presentation of onychomatricoma. Onychogriphosis and splitting of the nail plate never described before as a clinical manifestation of this onychopathy.

Dermoscopy of the nail apparatus played a major role in the clinical orientation of the diagnosis in our case by showing whitish digitations with matrix implantation.

Surgical treatment must be early in order to limit the risk of definitive cicatricial dystrophy.

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Abstract N°: 5918

Successfull Treatment of Alopecia areata with JAK inhibitor Upadacitinib: A Case Report

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Introduction & Objectives:

Alopecia areata (AA) is an immune-mediated, potentially reversible, non-scarring form of hair loss characterized by circular, hairless patches on the scalp. Severe cases can result in complete loss of scalp and facial hair (Alopecia areata totalis) or even total body hair loss (Alopecia areata universalis). AA is associated with a significant impact on the quality of life and psychosocial stigmatization for affected individuals. Current treatment options often yield unsatisfactory results, with high recurrence rates upon discontinuation. Janus kinase inhibitors (JAKi) have demonstrated promising efficacy in several clinical studies.

Diagnostics & Therapy:

We present the case of a 37-year-old male patient who presented to our outpatient clinic with Alopecia areata. Over a period of 18 months, nearly all of his scalp hair had fallen out. Previous treatment with topical and systemic corticosteroids had shown no improvement in the progressive symptoms. The patient denied any pre-existing conditions or regular medication use. Physical examination revealed well-defined, multiple, localized areas of hair loss on the scalp, some of which had merged, along with scattered pigmented vellus hairs. Eyebrows, eyelashes, beard area, and the remaining body hair were unaffected. The severity assessment was performed using the "Severity of Alopecia Tool (SALT)-Score," an established instrument for evaluating scalp hair loss. The initial SALT score was 84.2. Trichoscopy revealed preserved hair follicles.

Results:

In October 2021, we initiated an off-label immunomodulatory therapy with Upadacitinib (Rinvoq®) 15 mg, an oral selective Janus kinase 1 (JAK1) inhibitor approved for the treatment of atopic dermatitis, psoriatic arthritis, and rheumatoid arthritis. Pre-treatment laboratory parameters, including complete blood count, liver and kidney function tests, lipid profile, hepatitis serology, and Quantiferon test, were all within normal ranges. After only 4 weeks of therapy, slow hair regrowth was observed. By 16 weeks of treatment, a significant SALT50 response was achieved with a score of 43.2. After a total of 43 weeks of therapy, almost complete regrowth of pigmented hair was observed throughout the scalp (SALT score: 6.4), with no signs of disease activity. At the 10-month follow-up visit, a SALT100 response was noted. No adverse drug reactions were reported throughout the treatment, and regular laboratory monitoring remained unremarkable. The patient continues to receive the aforementioned therapy with complete suppression of disease activity.

Conclusion:

This case report adds to a series of publications highlighting the crucial role of Janus kinases in the cellular signal transduction pathways of patients with AA. Studies have shown that the JAK-STAT signaling pathway is involved in the pathogenic immune processes affecting hair follicles, making it an interesting therapeutic target. The JAK1/2 inhibitor Baricitinib (Olumiant®) has obtained approval for AA treatment by the European Medicines Agency (EMA) based on convincing results from two Phase III trials in June 2022. However, as of now, reimbursement of prescription costs for all medications targeting hair loss is excluded by law (§ 34 SGB V) in Germany, resulting in a current inadequate provision of treatment for Alopecia areata despite the availability of effective drugs.

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 5980

Nail Melanoma: A Descriptive Study of 34 Patients

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Introduction :

Melanoma is a severe malignant tumor. Its seat at the nail represents 1 to 3%. There are few studies dealing with this entity in particular in Morocco

Objectives : to shed the light on the epidemiological, clinical and histological aspects of nail melanoma at the Dermatology Department of IBN ROCHD University Hospital in Casablanca

Materials and methods: we retrospectively analysed the epidemiological and clinical characteristics of 24 patients having NM, from 2009-2022. We compared our findings to those reported in the litterature.

Results : 34 cases of nail melanoma were recalled. A female predominance was observed with a sex ratio (M/F) of 0.47. The average age at the time of diagnosis was 55 years and the most common reason for consultation was an ulcerative-budding nodule of the nail in 57.75%. Clinically, the fingers were the main site of the lesion. Regarding histology, nodular melanoma was the most common type (47%). Metastases were found in 53.33%. Surgical avulsion was the reference treatment in 67.64%. The 5-year survival was 50%.

Disscusion : Nail melanoma (MU) is a malignant tumor that develops from the melanocytes of the nail apparatus, its prognosis is poor because of the delay in diagnosis.

Nail melanoma is more common in patients between the ages of 50 and 70. Moreover, in our series, 4 melanomas occurred at an early age (10-30 years) from a BM evolving since childhood; that underlines the interest of monitoring infant BMs because of the risk of transformation. The nail biopsy is necessary if: BM occurring in a patient aged 45-50 years, BM exceeding 2/3 of the nail plate and BM persistent at the age of puberty.

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Abstract N°: 6021

Frontal Fibrosing alopecia in pseudo-fringe pattern, mimicking tractional alopecia: A case report

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Introduction & Objectives:

Frontal fibrosing alopecia(FFA) is a primary lymphocytic scarring alopecia characterized by progressive recession of the frontotemporal line, accompanied with alopecia of the eyebrows. Since its description in 1994, the incidence of FFA has been increasing.

Materials & Methods:

We present the case of a 32-year-old female patient, with no history of importance. She came to our center for the first time in August 2020, referring capillary loss of one year of evolution, at that time the patient presented a decrease in capillary density without alopecic areas; the patient returned 2 years later referring progression of the disease. Physical examination revealed localized dermatosis on the head affecting the frontal and temporal region of the scalp with pseudoalopecic plaque in band arrangement. Dermoscopy showed scaling and perifollicular erythema, loss of follicular openings and some vellus hairs. A biopsy was performed and a histological diagnosis of perifollicular and superficial perivascular dermatitis, fibrosis, infiltrate with lymphocytic predominance was made. Correlating with FFA, initiating management with oral dutasteride, high potency steroid and topical minoxidil.

She came for follow-up 4 months later, with absence of scale and perifollicular erythema, in addition to numerous hair regrowth.

Results:

In this entity, the bulge of the hair follicle is attacked by an inflammatory infiltrate characterized by CD8 T lymphocytes, this inflammation causes the destruction of stem cells preventing hair regeneration, the cause of the loss of the immune privilege is not yet known.

The etiology is not yet well described, there are some factors as cosmetics at the implantation line and hormonal imbalance affecting post menopausal women.

There are atypical patterns such as linear, zig zag and pseudo-fringe patterns.

The pseudo-fringe pattern is observed in 6.2% of patients and it is the one that responds best to treatment, it can be confused with tractional alopecia in band dispossition.

Dermoscopy is necessary in the diagnosis of this entity in order to make the differential diagnosis, often begins with a thinning of the hair and can be confused with androgenetic alopecia, suggesting that this entity may begin as a non-scarring alopecia. The trichoscopic findings are erythema and perifollicular scaling, decrease of follicular ostium.

In doubtful cases it is necessary to take a biopsy where the loss of sebaceous glands is observed as an early sign, perifollicular fibrosis and a lymphocytic inflammatory infiltrate.

Regarding treatment, its necessary to establish whether it is in an early inflammatory phase or not.

In active cases with abundant inflammatory data high potency costicosteroids can be used. Topical minoxidil is also used for its antifibrotic properties.

As for systemic treatment in recent years, 5-alpha reductase inhibitors have been used, especially dutasteride, the reason why it works is not yet well documented, it is believed that it acts on the hormonal imbalance that post menopausal women present, It has been proven to be a safe drug, however it is not recommended in patients with personal or family history of breast cancer.

Classically, hydroxychloroquine has been used for the treatment of FFA due to its anti-inflammatory properties.

Conclusion:

FFA is a disease that is still under investigation, since to date the real etiology is not known, numerous causes have been proposed, however none manages to explain the pathogenesis.

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Abstract N°: 6029

Adverse reaction to artificial hair implant. A case report

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Introduction & Objectives:

Hair implantation with artificial fibres is a therapeutic option in the management of alopecia. It has its peculiarities, its adverse effects and from the beginning it has always generated controversy.

Materials & Methods:

60-year-old woman with androgenic alopecia, consulted for intense itching and a burning sensation on the scalp that had been going on for more than a year. She relates its appearance after a hair implant with artificial polyamide fibres. The symptoms referred, to began approximately 6 months after the procedure. Clinically, she presented comedo-like lesions in the scalp, centred by hair fibres and erythema at the base. In some areas folliculitis-like lesions were observed around these structures. A skin biopsy showed artificial hair fibres contained in a dilated pseudoinfundibulum, occupied by keratin, bacterial elements and neutrophils. Around these pseudoinfundibulae there is a mild chronic inflammatory infiltrate and fibrosis. Topical corticosteroids did not achieve adequate control of these symptoms. Finally, partial removal of the implants and treatment with oral doxycycline was chosen, with improvement.

Results:

Artificial hair implantation is a practice that emerged in the 1970s as an alternative to autologous hair implantation. The first interventions carried out in this way, mainly with modacryl fibres, fell out after a few weeks and generated considerable inflammatory and infectious reactions. This led the FDA (Food and Drug Administration) to ban its use in the United States. This ban is still in force today. In contrast, in other countries their use is permitted and materials and techniques have been developed in an attempt to improve on the poor results of the initial artificial hair implants. Publications showing acceptable results of the of artificial implants are found in the literature. However, reports of adverse effects continue to emerge and there is still some caution about their widespread use.

Conclusion:

We present the case of a patient with a local reaction to an artificial hair implant. Despite being one of the most modern and best tolerated models according to the literature (made of polyamide), our patient required its removal for symptom control.

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Abstract N°: 6031

factors associated with the development of traction alopecia in nurses from a third-level hospital in northeast mexico

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Introduction & Objectives:

Traction alopecia (TA) is a form of hair loss that occurs in individuals who use hairstyles that produce a continuous force of traction on the roots of the hair. It occurs in all races, however, it is more commonly found in women of African descent.

Our overall objective was to investigate the factors that are associated with the development of traction alopecia in nurses working in a third-level healthcare institution in northeastern Mexico.

Materials & Methods:

This was a descriptive and cross-sectional study. Nurses with hair loss were invited to attend a dermatology consultation. Patient evaluation was performed using iconographic registration, questionnaires, and determination of the presence of traction alopecia using the M-TAS scale. We used a digital camera, Tricolab equipment and software, printed copies of the informed consent form, a data collection sheet, and the M-TAS severity scale. The diagnosis was established based on clinical and trichoscopic findings. The variables analyzed were severity of alopecia, age, age at onset of work, hours of work, hair length, type of childhood hairstyle, work hairstyle, use of nurse's cap, and prior treatments.

Results:

A total of 105 patients attended the consultation, of whom 10 (9.5%) had traction alopecia. Other diagnoses were androgenetic alopecia and telogen effluvium. Trichoscopic findings showed peripilar cast in 5 cases (50%), black dots in 2 cases (20%), perifollicular brown pigment in 4 cases (40%), empty follicular openings in 5 cases (50%), irregular white dots in 4 cases (40%), pilli torti in 3 cases (30%), trichorhexis nodosa in 1 case (10%), vellus hairs in 10 cases (100%), erythema in 10 cases (100%), absence of follicular openings in 2 cases (20%), and circle hair in 1 case (10%).

Most of the participants with traction alopecia (8, 80%) were between the ages of 31 and 50 years old. All started their career between the ages of 15 and 25 years old, and started working between 15-20 years old in 5 cases (50%), between 21-25 years old in 4 cases (40%), and between 26-30 years old in 1 case (10%). Most of them (9, 90%) worked for 8 hours, and 1 (10%) worked from 8-16 hours. The hair length was medium in 4 cases (40%) and long in six cases (60%). The most common hairstyle for work was a bun in nine cases (90%) and a ponytail in one case (10%). Eight (80%) nurses wore a cap as part of their uniform, and 8 (80%) changed their hairstyle when they arrived home. None of them had consulted a dermatologist; Eight (80%) participants were aware that their profession represented a risk factor for traction alopecia.

Conclusion:

The results indicate that traction alopecia is a significant issue in nurses, and that hair styling habits and prolonged use of tight hairstyles and nursing caps are an important factor in its etiology. There is a need for greater

awareness and education about this pathology, as well as promotion of more comfortable hairstyles to help prevent it.

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Abstract N°: 6038

Tinea capitis VS scalp psoriasis

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Tinea capitis VS scalp psoriasis

Introduction & Objectives:

Scalp scaling is a common condition in children that can be associated with several disorders: mycotic or parasitic infections and inflammatory conditions. Some clinical presentations are confusing because of the common clinical signs.

Objectives:

We report a case of tinea capitis on 4-year-old child with psoriasis.

Materials & Methods:

A 4-year-old male child with history of psoriasis in the trunk, limbs and scalp, was referred to our department for an alopecic and scaly patch of the scalp developing for a month. Parents reported that the lesion had been treated with topical corticosteroids as it was considered psoriatic plaque, without improvement. Clinical examination showed a -7cm- alopecic single annular well-defined patch at the vertex, with an erythematous-scaly surface covered with short broken hair. The other scalp areas presented multiple dry, non-alopecic scaly patches. These lesions extended over the neck and the retro-auricular regions. There were also multiple small infiltrated erythematous-squamous plaques around the trunk and the four limbs.

Results:

A mycological examination was performed for the alopecic plaque showing ecto-endothrix parasitism. The diagnosis of microsporic tinea capitis was retained and the patient was treated with Griseofulvin (20 mg / kg / day) with a favorable evolution. Mycological examination after 6 weeks of treatment was negative. Topical corticosteroid treatment for the scalp psoriasis was then set.

Conclusion:

Scalp scaling is a common finding in infants and prepubertal children. Scalp psoriasis is characterized by itchy erythematous patches, covered with dry scales classically non-alopecic. In this entity, scratching can lead to thinning of the hair. It's important to highlight that all psoriasis subtypes can mimic the tinea capitis.

The clinical aspects of tinea capitis vary depending on the pathogenic species involved. Unlike psoriasis, it is characterized by scaly alopecic patches resulting from breakage of infected hair. Dermatoscopy and Wood's lamp are useful tools for the diagnostic approach. However, mycological tests confirm the diagnosis.

Fourteen cases of tinea infections confused with psoriasis are summarized in a review of the literature.

Moreover, it has been reported a case in which the patient presented a localized scalp psoriasis triggered by Microsporum canis.

In conclusion, every scaly plaque on the scalp should lead us to perform a mycological examination in order to guide the diagnosis and adapt the treatment.

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Abstract N°: 6114

Spontaneous Hair Regrowth In Patients With Severe AA Randomized To Placebo In BRAVE-AA1 And BRAVE-AA2 Trials

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Introduction & Objectives: Alopecia areata (AA) is an auto-immune disorder marked by varying degrees of non-scarring hair loss and an unpredictable evolution [1]. Spontaneous regrowth is observed in many patients with less extensive, early disease; however, hair loss tends to become persistent with time, and when it is extensive [2, 3]. A meta-analysis of AA clinical trials reported that only 7.2% of patients with severe AA achieved ≥50% scalp hair regrowth on placebo [4]. Here we report data from patients on placebo during the 36-week placebo-controlled period of baricitinib phase 3 clinical trials, BRAVE-AA1 (NCT03570749) and BRAVE-AA2 (NCT03899259).

Materials & Methods: BRAVE-AA1 and BRAVE-AA2 enrolled 1200 adults with severe AA (Severity of Alopecia Tool [SALT] score ≥50). Patients were randomized in a 3:2:2 ratio to receive baricitinib 4 mg, baricitinib 2 mg, or placebo. The present analyses focus on patients randomized to receive placebo from baseline to Week 36. Clinical outcomes assessed were the proportion of patients achieving a SALT score ≤20 (≤20% scalp hair loss), the proportion of patients achieving at least 50% reduction (improvement) from baseline in SALT score (SALT50), and the proportions of patients achieving Clinician-Reported Outcomes (ClinRO) for Eyebrow Hair Loss™ and Eyelash Hair Loss™ scores of 0 or 1 (full coverage or minimal gaps) with ≥2-point improvement from baseline (among those with baseline scores ≥2 [significant gaps to no notable hair]). Data were censored after treatment discontinuation or if collected remotely due to COVID-19.

Results: Overall, 345 patients (138 males and 207 females with a mean [SD] age of 37.2 [12.6] years) were randomized to received placebo. At Week 36, a SALT score ≤20 and a SALT50 were achieved by 14 (4.1%) and 32 (9.3%) of the 345 placebo patients, respectively (Figure 1A). Among the patients with a baseline ClinRO score ≥2, a ClinRO score of 0 or 1 with a ≥2-point improvement from baseline was achieved in 9 of 236 (3.8%) of placebo patients for Eyebrow and in 8 of 186 (4.3%) for Eyelash (Figure 1A). Mean SALT score (SD) for the overall placebo population was 84.8 (17.8) at baseline and 79.5 (28.2) at Week 36 (Figure 1B). Compared with the overall placebo group, patients on placebo who experienced clinically meaningful spontaneous scalp hair regrowth (SALT score ≤20) had lower mean SALT score (SD) at baseline (66.3 [14.2]), shorter median (range) duration since AA onset (1.8 [0.6, 21.4] years vs 9.4 [0.6, 51.9] years) and shorter duration of current episode (Table 1).

Conclusion: This analysis of patients randomized to placebo during the first 36 weeks of baricitinib phase 3 trials confirmed that severe AA is associated with a low likelihood of clinically meaningful spontaneous scalp, eyebrow, and eyelash hair regrowth. The percentage of patients achieving ≥50% scalp hair regrowth at Week 36 was consistent with results of other published AA clinical trials. Overall, placebo-treated patients who achieved a SALT score ≤20 at Week 36 had a lower SALT score and a shorter duration of disease at baseline.

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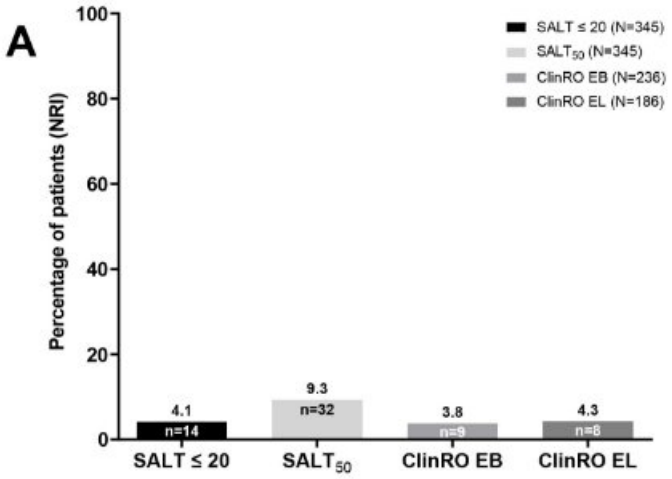
Table 1. Baseline demographics and disease measures for the original placebo group and subgroup with spontaneous hair regrowth from BRAVE-AA1 and BRAVE-AA2

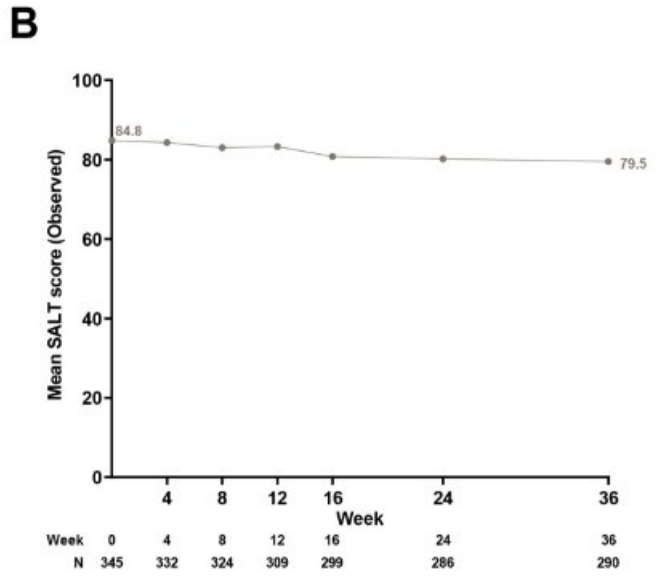
	Placebo (N=345)	Subgroup with Spontaneous Hair Regrowth (N=14)
Age, years	37.2 (12.6)	37.9 (8.9)
Female, *n* (%)	207 (60.0)	9 (64.3)
Race, n-obs (%)		
White	168 (48.8)	7 (50.0)
Asian	129 (37.5)	5 (35.7)
Black	33 (9.6)	1 (7.1)
Other[a]	14 (4.1)	1 (7.1)
BMI, kg/m^2	26.3 (5.8)	27.0 (7.6)
Duration of AA since onset, median (range) years	9.4 (0.6, 51.9)	1.8 (0.6, 21.4)
Duration of current AA episode, n-obs (%), years		
≥0.5 to <1	57 (16.6)	5 (35.7)
≥1 to <2	65 (19.0)	5 (35.7)
≥2 to <4	104 (30.3)	3 (21.4)
≥4 to <8	82 (23.9)	0
≥8	35 (10.2)	1 (7.1)
Patients with alopecia universalis,[b] *n* (%)	140 (40.6)	4 (28.6)
SALT score	84.8 (17.8)	66.3 (14.2)
Severity, *n* (%)		
Severe (SALT score 50-94)	166 (48.3)	13 (92.9)
Very severe (SALT score 95-100)	178 (51.7)	1 (7.1)
ClinRO measures, *n* (%)		
Eyebrow Hair Loss score of 2 or 3[c]	236 (69.4)	5 (35.7)
Eyelash Hair Loss score of 2 or 3[c]	186 (54.7)	5 (35.7)

Abbreviations: AA = alopecia areata; BMI = body mass index; ClinRO = Clinician-Reported Outcomes; N = number of patients in the analysis population; n = number of patients in the specified category; n-obs = number of patients in the analysis; SALT = Severity of Alopecia Tool.
Data are mean (standard deviation) unless stated otherwise. The denominator may vary based on the actual total N in each category.
[a]Includes patients who identified as American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, or multiple; [b]As assessed by the Investigator; [c]ClinRO scores of 2 indicate significant gaps in eyebrows and eyelashes and scores of 3 indicate no notable eyebrows and eyelashes.

Figure 1. A) The percentages of patients on placebo achieving a SALT Score ≤20, SALT50, ClinRO Score 0 or 1 with ≥2-point improvement from baseline for Eyebrow, or ClinRO Score 0 or 1 with ≥2-point improvement from baseline for Eyelash at Week 36 analysed using NRI. B) Observed mean SALT score for patients on placebo through Week 36

Abbreviations: ClinRO = Clinician-Reported Outcomes; EB = eyebrow; EL = eyelash; NRI = non-responder imputation; SALT = Severity of Alopecia Tool; SALT50 = 50% reduction (improvement) from baseline in SALT score.





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Abstract N°: 6155

nacetylcysteine : a therapeutic alternative in trichotillomania

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Introduction & Objectives:

Body-focused repetitive behavior disorders (BFRBs) are self-inflicted compulsive behaviors that cause physical damage to the skin, hair, and nails. it's often associated with psychosocial consequences. Many patients treated for dermatological conditions have an underlying psychiatric disorder that aggravates or provokes the underlying dermatosis. Common BFRBs include trichotillomania .

Materials & Methods:

We report the case of 2 sisters followed for trichotillomania and receiving Nacetylcysteine (NAC) for 3 months since the failure of psychotherapy.

Two sisters aged 16 and 25 years old , with divorced parents, presented a trichotillomania – and some episodes of trichophagia – since early childhood . Both of them had previous psychotherapy sessions without any improvement.

Physical examination found an irregular not scarring alopecia, that affects the parietal scalp, with slight temporal involvement in one case and occipital involvement in the other . Frontal region was spared .

We identified in dermoscopy some blackheads, broken hair, and a few V-shaped points. The patients refused to take any more psychotropic treatments and refused other psychotherapy sessions.

We used NacetylCysteine as a therapeutic alternative at a dose of 1200 mg per day with additional treatment to promote hair regrowth (supplements , PRP…). After 1 month of treatment, we obtained significant reduction in the number of hairs pulled out per day . Three months afterward, the regrowth was entire for the youngest sister but very modest for the other one.

Results:

NacetylCysteine is a safe, available, and efficient therapeutic alternative in trichotillomania. Among other glutaminergic agents, NAC possesses the lowest cost and the least side effects. When psychotherapy is not enough, many practitioners will preconize using IRSS and other psychotropic drugs .

NAcetylCysteine remains a secure alternative that creates no addiction and possesses a safe profile.

The efficiency among children seems higher than adults and teenagers. This may be explained by the fact that trichotillomania in adults is frequently associated with diverse psychopathologies including depression, anxiety, eating disorders and others. However a longer follow up will be needed to evaluate well the hair regrowth, and other studies should try NAC in treating other BFRBS like onychotillomania , onychophagia etc …

Conclusion:

Trichotillomania is a frequent reason of consultation among children and teenagers , many deny the act of pulling out their hair , which makes parents and practitioners face e a real diagnostic problem .

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Abstract N°: 6216

Side effects of nail cosmetics : a case-control study

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Introduction & Objectives:

Nail cosmetics are used by millions worldwide and the variety of products available is expanding. Side effects are multiple, ranging from simple reversible cosmetic alterations to the occurrence of malignant tumors. The objectives of our study were to describe clinical and dermoscopic alterations of the fingernail plate and proximal nailfold of patients in comparison with controls.

Materials & Methods:

We conducted a monocentric case-control study, that included 51 patients and 51 controls from January to May 2023. The case and control groups were age and gender matched. For all the subjects, the 10 fingernails plate and proximal nailfold were examined clinically and dermatoscopically. Patients with auto-immune diseases or systemic disorders were excluded from this study.

Results:

Our 51 patients were all females. The median age was 24 years (IQR: [20-28 Y]). Three main techniques were used: long lasting nail polish (72,5%), artificial nails (27,4%) and acrylic nails (0,1%). The most frequent nail plate abnormalities were superficial granulation of keratin (39,2%), splinter hemorrhages** (31,37%), leukonychia (25,4%) and onycholysis (21,56%). Other side effects were chloronychia, onychoschizia and a case of half and half nails induced by a frequent use of artificial nails. As for the proximal nailfold, microhemorrhages (17,63%) and enlarged capillaries (15,68%) were the most frequent abnormalities. Other findings were branched capillaries, thrombosed capillaries, smoke volute hemorrhage and hemorrhage in plate stack. Most of these findings were significantly more frequently seen in patients than in control subjects.

Conclusion:

This study is the first of its type to show that the use of nail cosmetics can have many side effects on both the nail plate and the proximal nailfold. Literature concerning this subject is scarce and focusses mainly on allergic contact dermatitis. Education about the risk of side-effects is crucial for women using nail cosmetics. The limited sample size and absence of anti-nuclear antibodies assays to eliminate a systemic disorder were limitations.

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Abstract N°: 6232

Retrospective study to evaluate the clinical presentation, dermoscopy, histopathology, and treatment outcome in patients of Primary Cicatricial Alopecia

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Introduction & Objectives:

Diagnosis and management of Primary Cicatricial Alopecia (CA) is very challenging. Cicatricial alopecia can produce major psychosocial disturbance. A retrospective study was conducted to evaluate the clinical presentation, dermoscopy, histopathology, and treatment outcome in patients of Primary Cicatricial Alopecia

Materials & Methods:

Patients with a clinical diagnosis of cicatricial alopecia with detailed records of a complete history, clinical examination, dermoscopy, histopathology, and treatment details were retrospectively included in the study.

Results:

Total of 21 patients presented with cicatricial alopecia to our OPD from January 2021 to April 2023. Most of the patients in our study were in the 3rd and 4th decade with M: F ratio of 1:2.5. Duration of disease ranged from 4 months to 4 years with a mean duration of 18 months. The frontal area of the scalp was the most affected area followed by the parietal & temporal area. Hyperpigmented atrophic patches were the common clinical presentation followed by depigmented patches of alopecia.

Perifollicular scaling, perifollicular erythema, and blue-grey dots with the absent follicular opening were the common dermoscopic features seen in patients with lichen planopilaris. Pigment incontinence, white scaling, pink-white background, absent follicular opening, white-structureless area, and arborizing telangiectatic vessels were the common dermoscopic features in DLE.

On Histopathology 12

patients had Lichen-plano-pilaris, 6 patients had DLE & 3 patients had central centrifugal alopecia.

Most of the patients were treated with oral hydroxychloroquine followed by a combination of oral mini pulse with acitretin along with topical tacrolimus 0.1% in almost all patients.

Lichen planopilaris was the commonest cause of cicatricial alopecia in our study.

Conclusion:

Cicatricial alopecia presents with scarring hence the decision to start the treatment depends upon the active status of the disease. Dermoscopy and histopathology were found effective in the diagnosis of disease but histopathology was more accurate in predicting the activity of the disease for further treatment.

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Abstract N°: 6276

Combination Treatment with Methotrexate for a Rare Case of Severe Diffuse Alopecia Areata (AA) in a 20 year old Filipino.

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Introduction & Objectives:

AA is an autoimmune disorder caused by autoreactive CD8 T-cells that presents as nonscarring round patches of hair loss. Being the most common cause of hair loss in children and more commonly seen in the elderly, this is a rare case of severe diffuse Alopecia Areata.

Materials & Methods:

Our patient is a 20-year-old female with 2 months history of hairless patches over the frontal, temporal, parietal and occipital areas. SALT score was initially 86.1% which peaked to 92% diffusely involving the entire scalp and right eyebrow. On dermoscopy, multiple black dots, and exclamation point hairs were identified. Considering the clinical picture and dermoscopic findings, the primary consideration was Diffuse AA. Histopathologic examination showed perifollicular infiltration of lymphocytes and histiocytes, confirming AA.

Patient was started on Prednisone 20mg OD, with twice daily application of Triamcinolone 0.01% cream, and Minoxidil 5% solution. Progression was noted hence Prednisone was increased by 5 mg every 2 weeks to a maximal dose of 35mg/tab. Methotrexate was initiated at 7.5mg/week in 3 divided doses with the plan of tapering Prednisone by 5mg after 1 month. Triamcinolone 0.01% cream was shifted to Clobetasol scalp solution, applied twice daily. Intralesional Triamcinolone injections were administered monthly while Minoxidil 5% solution was continued.

Results:

Adverse effects of hypertrichosis over bilateral cheeks, moon facies and steroidal acne were noted after 4 months of corticosteroid use, hence Prednisone was quickly tapered then discontinued. SALT score was 10.1% thus methotrexate was tapered by 50% every 2 weeks then discontinued. Topical medications and Triamcinolone injection were continued while vitamin D and zinc supplementation were started to maintain regrowth. SALT score at the end of 6 months treatment was 0.1%.

Conclusion:

Disease progression reversal of severe AA can be achieved in 6 months with strategic treatment maximization. Methotrexate in combination with corticosteroids is effective for severe diffuse AA.

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Abstract N°: 6475

Long-term efficacy of ritlecitinib up to Month 24 from the ALLEGRO phase 2b/3 and long-term phase 3 clinical studies in alopecia areata

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Introduction & Objectives: Ritlecitinib, an oral JAK3/TEC family kinase inhibitor, demonstrated efficacy and safety up to 48 weeks in patients aged ≥12 years with alopecia areata (AA) in the ALLEGRO phase 2b/3 study (NCT03732807). ALLEGRO-LT (NCT04006457) is an ongoing, phase 3, open-label study investigating the long-term safety and efficacy of ritlecitinib in AA. Here we report updated interim efficacy results of ritlecitinib up to Month 24 from the ALLEGRO phase 2b/3 study and ALLEGRO-LT study.

Materials & Methods: Patients aged ≥12 years with AA and ≥50% scalp hair loss who rolled over to ALLEGRO-LT after completing ALLEGRO-2b/3 were included. Data are reported for patients who received daily ritlecitinib 50-mg with an initial 4-week 200-mg daily loading dose in ALLEGRO-2b/3 and daily ritlecitinib 50-mg in ALLEGRO-LT ("200/50-mg" group) as well as for patients who received daily ritlecitinib 50-mg in ALLEGRO-2b/3 and ALLEGRO-LT ("50-mg" group). Outcomes include the proportions of patients with response (based on Severity of Alopecia Tool [SALT] score ≤20, SALT score ≤10, and Patients' Global Impression of Change [PGI-C] score of "moderately improved" or "greatly improved") through Month 24, and the proportions of patients who sustained SALT ≤20 response from Month 12 through Month 24. Observed and imputed (modified last observation carried forward [mLOCF]) data, to account for missing data values, are reported at the time of data cutoff (December 9, 2022).

Results: The 200/50-mg and 50-mg groups included 194 and 191 patients, respectively, of whom 127 (65.5%) and 111 (58.1%) were ongoing at the time of data cutoff. At Month 12, 45.9% and 45.1% (observed) and 41.8% and 40.3% (mLOCF) of patients in the 200/50-mg and 50-mg groups, respectively, had SALT scores ≤20; the proportions increased to 63.1% and 60.8% (observed) and 50.8% and 46.1% (mLOCF), respectively, at Month 24. SALT score ≤10 response rates increased from 39.4% to 51.1% (observed) and from 35.6% to 40.9% (mLOCF) between Months 12 and 24 for the 200/50-mg group and from 34.2% to 50.8% (observed) and from 30.9% to 37.7% (mLOCF) for the 50-mg group. Of patients who achieved SALT score ≤20 response at Month 12 with ritlecitinib 200/50-mg and 50-mg, 92.8% and 79.7% (observed) sustained this response through Month 24, respectively. PGI-C response rates were maintained from Month 12 (200/50-mg: 69.4% [observed], 65.3% [mLOCF]; 50-mg: 61.6% [observed], 57.7% [mLOCF]) to Month 24 (200/50-mg: 76.4% [observed], 65.4% [mLOCF]; 50-mg: 70.0% [observed], 56.6% [mLOCF]).

Conclusion: Ritlecitinib 50-mg (with or without a 200-mg loading dose) demonstrated clinically meaningful and sustained clinician- and patient-reported efficacy through Month 24, which supports its long-term use in patients aged ≥12 years with severe AA.

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Abstract N°: 6743

Deuruxolitinib demonstrates significant and continual improvement in scalp hair regrowth at 52 weeks of dosing in patients with alopecia areata: Pooled efficacy results from ongoing open-label extension trials

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Introduction & Objectives:

Alopecia areata (AA) is an autoimmune disease that causes partial or complete loss of scalp and/or body hair. Deuruxolitinib, an inhibitor of Janus kinase (JAK) 1 and JAK2, has demonstrated significant improvements in hair regrowth compared with placebo in two Phase 3 trials (THRIVE-AA1 [NCT04518995] and THRIVE-AA2 [NCT04797650]) in adult patients with AA at 8 mg BID and 12 mg BID doses. Patients completing the 24-week treatment period from qualifying Phase 2 and Phase 3 trials were eligible to enroll in one of two ongoing open-label extension (OLE) trials.

Materials & Methods:

OLE patients received either 8 mg BID or 12 mg BID oral deuruxolitinib, with the possibility of dose adjustment at the discretion of the investigator. Assessments of scalp hair regrowth using the Severity of Alopecia Tool (SALT) occurred every 4 weeks for the first 12 weeks, then every 8 weeks thereafter. This interim report provides data for 52 weeks of dosing at either the 8 mg BID or 12 mg BID doses. Data from patients switching between 8 mg BID and 12 mg BID, or who withdrew from the study, were censored at the time of change.

Results:

At 52 weeks of cumulative dosing, 741/1168 patients (63.4%) were eligible for analysis. From baseline to Week 52, mean (SD) SALT scores for the 8 mg BID qualifying study/8 mg BID OLE (8 mg BID/8 mg BID) group (n=275/521) decreased from 87.1 (17.7) to 25.6 (34.3). Similar results were seen in the 12 mg BID qualifying study/12 mg BID OLE (12 mg BID/12 mg BID) group (n=314/397), where SALT scores decreased from 85.9 (18.3) to 27.7 (34.7). The percentage of patients achieving a SALT score ≤20 established in the 24-week qualifying study continued to increase in the OLE, with 63.6% of patients in the 8 mg BID/8 mg BID group and 62.1% in the 12 mg BID/12 mg BID group, achieving this endpoint at 52 weeks. Treatment-emergent adverse events observed in the long-term exposure pool were similar to the placebo-controlled safety pool, those observed only in the OLE studies for the long-term exposure safety pool and other JAK inhibitors indicated for chronic inflammatory conditions.

Conclusion:

Scalp hair regrowth showed continuous improvement in patients with AA receiving deuruxolitinib 8 mg BID or 12 mg BID up to 52 weeks. These data demonstrate that a high proportion of patients achieve clinically meaningful improvements in scalp hair regrowth with deuruxolitinib over 52 weeks of dosing. Further analyses in the ongoing OLE trials will detail hair regrowth beyond 52 weeks.