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Radiological evaluation of Radiesse implantation to correct moderate to very severe volume loss in the dorsum of the hand

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Background: A 2-year, prospective, multicenter, open-label study was conducted to evaluate the safety of Radiesse (calcium hydroxylapatite) implantation in the dorsum of the hands with very severe volume loss. Enrolled subjects had baseline dorsal Merz Hand Grading Scale (MHGS) grades ranging from moderate (grades 2 or 3 in both hands; group B) to very severe volume loss (grade 4 in both hands; group A). All subjects received an initial Radiesse injection and up to 3 retreatments. The rate of treatment-related severe AEs, defined as AEs that interrupted usual daily activities, was evaluated at 6 and 24 months after initial injection. Three months after initial injection, subjects were evaluated by blinded evaluators using the MHGS; subjects also self-assessed using a Global Esthetic Improvement Scale. A total of 256 subjects (A = 130; B = 126) were enrolled and received initial treatment. Many subjects received all 4 treatments (A = 41.5%; B = 43.7%). Only 2 treatment-related severe AEs were reported (A only = 2 severe swelling). Mild to moderate treatment-related AEs were reported in 38% of subjects (bruising, swelling, pain, or nodule). No treatment-related serious AEs (SAEs) were reported. At month 3, most subjects demonstrated ≥1-point improvement from baseline using the MHGS (A = 90%; B = 82.5%), and subjects similarly reported esthetic improvements (A = 89%; B = 94%). Radiesse injection in the hands was well tolerated in subjects with very severe volume loss with no treatment-related SAEs reported.

Results: support a similar risk/benefit profile for subjects with very severe volume and those with moderate to severe volume loss in the dorsum of the hands.

Commercial disclosure: None identified.

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Fibrosis-4 index in psoriasis patients treated with methotrexate before cosentyx: A descriptive study

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Background: Psoriasis is a chronic inflammatory skin disease associated with higher prevalence of nonalcoholic fatty liver disease (NAFLD). There are several techniques to assess the risk of NAFLD, one of them is the Fibrosis-4 index (FIB-4).

Objective: To evaluate the FIB-4 index in patients with psoriasis who were treated with methotrexate before secukinumab at a reference hospital.

Methods: Single-center, observational, retrospective study. We analyzed demographic and disease variables, and also the FIB-4 before and after the treatment with secukinumab.

Results: We reviewed the records of 68 patients treated with secukinumab (38 men, 30 women; overall mean age 51.5 years, range 25-86) attended from November 2015 to April 2019. Methotrexate was used in 49 patients, most of them received 15 mg per week (range 7.5-25) for a mean of 7.63 months (range 1-24), with a mean FIB-4 of 0.89. Nine out sixty eight patients had a FIB-4 higher than 1.30 (undetermined), 5 of them were on methotrexate, 3 on acitretin and 1 had efalizumab treatment. Six of them improved the FIB-4 index after being treated with secukinumab. In our series, no patients reached a FIB-4 higher than 2.67 (advanced fibrosis). In those patients with plaque psoriasis n = 59 mean baseline pretreatment PASI was 11.4, with a mean FIB-4 of 0.88 pretreatment and 0.97 with treatment.

Conclusions: The results of this study agree the findings of clinical trials. FIB-4 may be an useful marker for hepatic fibrosis. Secukinumab seems to have no influence on NAFLD in this series.

Commercial disclosure: None identified.

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Topical treatment with kiwi-derived yeast extract increases hyaluronic acid resulting in improved skin hydration and clinically perceived facial radiance

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Background: Hyaluronic acid (HA) is a key molecule involved in maintaining skin structure and moisture, synthesized by hyaluronic acid synthase 2 enzyme (HAS2). However, HAS2 gene expression and activity decrease with age, resulting in declining HA levels, loss of skin radiance and decreased skin firmness. We investigated the effect of a topical Kiwi-derived Yeast Extract (KDYE) on HA and HAS.

Methods: Preclinical studies of the effect of KDYE on HA were conducted on human dermal fibroblasts and ex-vivo skin. In addition, KDYE was tested in human primary keratinocytes to evaluate the effect on ceramide synthesis genes. A placebo-controlled clinical study was also conducted in 30 females aged 35-55 years with Fitzpatrick skin types I-III and self-perceived facial skin dullness and dryness. Subjects applied a KDYE formulation twice a day for 12 weeks. Skin hydration and barrier function were evaluated at weeks 1, 4, 8, and 12. Improvements in radiance were assessed using a subject self-agree questionnaire.

Results: KYDE up-regulated HAS2 expression in primary fibroblasts in a dose-dependent manner, and increased HA levels in histochemical analysis of topically treated skin explants. Clinically, topical KDYE significantly improved ($P < .5$) dermatologist-graded and subject-perceived benefits in radiance and skin tone versus placebo. Improved skin hydration and barrier function resulted in consumer-perceived improvement in facial radiance as soon as week 1.

Conclusions: Overall these results demonstrate that KYDE induces endogenous HAS expression and is an effective topical treatment for restoring skin HA levels, resulting in clinical improvements in the appearance of skin hydration and radiance.

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Ataxia telangiectasia and melanoma: The role of dermatology in ataxia telangiectasia

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Presentation: A 28-year-old Caucasian woman with ataxia telangiectasia (AT), hypothyroidism, diabetes, uterine leiomyomas, liver adenoma, and hypogammaglobulinemia presented with a 6-month history of growth of melanocytic lesion which had previously been stable for the 4-5 years. Physical examination revealed a large, dark brown macule on the right lateral foot.

Course and Therapy: Shave biopsy revealed a broad, uneven proliferation of atypical, pleomorphic melanocytes with prominent nucleoli with cleaved nuclei. Breslow thickness was 1.4 mm with positive margins, 1 mitosis/mm^2, and no ulceration. Immunohistochemical staining revealed diffusely positive HMB45, MIB-1 present in >10% of dermal melanocytes in some foci, preservation of p16, no mutation in BRAFV600E nor loss of BAP1. Wide local excision of 2 cm margins revealed invasive melanoma with Breslow thickness of 0.81 mm and melanoma in situ. Sentinel lymph node biopsy revealed incidental nodal nevus.

Discussion: Ataxia telangiectasia (AT) is an autosomal recessive mutation in the ATM gene on chromosome 11 characterized by early onset cerebellar ataxia, oculocutaneous telangiectasias, immunodeficiency, and progressive respiratory failure. Incidence of malignancy is 37-fold in AT compared with the general population, as the ATM mutation impedes the ability of the tumor suppressor protein p53 to halt the cell cycle for DNA repair causing cells to accumulate damaged DNA. Approximately 85% of malignancies are hematopoietic. The incidence of melanoma in AT has not yet been characterized; however, the incidence of melanoma, like other malignancies, is increased in AT relatives. In the general population, 5%-10% of melanomas have been associated with somatic ATM mutations.

Commercial disclosure: None identified.