001 The potential role of prolactin as a biologic marker in diagnostic of psoriasis vulgaris
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Almost no data is available on the first hypothesis that prolactin (PRL) acts as a neuroendocrine modulator of both skin epithelial growth and the skin immune system. This concept can be integrated into current views on multilevel neuroendocrine-immune communication along the brain-skin axis in health and disease. Focusing on psoriasis, as a stress-related disease, we discuss the possible role of PRL as a biologic marker and identify potential therapeutic targets for its management. A prospective study was conducted on a sample of 90 patients with psoriasis vulgaris (40 patients on the active phase of psoriasis, 50 patients in remission phase) and 50 healthy volunteers as control cases. Serum PRL levels were measured by electrochemiluminescence immunoassay method (ECLIA). The value of serum PRL in patients with psoriasis vulgaris in active phase of disease was 19.2± 9.5 ng/mL, significantly higher PRL levels compared to the value obtained in patients with psoriasis in remission phase of disease (11.3 ± 5.4 ng/mL, p = 0.021) vs. controls (5.7 ± 3.6 ng/mL, p = 0.001). The prolactin cutoff value that makes PRL difference between patients with psoriasis and control group, in our experimental conditions is 12.9 ng/mL. As a result, higher serum levels of PRL did not report any serious adverse events during the study. 120 sites (90.1%) of wrinkles and acne scar sites were responders. Long-term follow up sessions showed improvements of wrinkle and acne scar treatment sites demonstrated 2 out 7. 56.1% of wrinkle sites (86.1%) of acne scars had at least 1-grade improvement. 6 months average improvement was marked in psoriatic patients on active phase. This study showed increased serum PRL levels in patients with psoriasis vulgaris compared to healthy controls. Prolactin may contribute to psoriasis pathogenesis, by stimulating keratocyte proliferation, T-lymphocyte, promoting angiogenesis. Nonetheless, it could be used as a serologic marker to differentiate between patients with psoriasis and healthy controls. Pharmacological modulation of PRL may represent a future target to restrict the lesions in psoriatic patients.

003 A single-arm, open-label phase III clinical trial of autologous fibroblast transplantation for facial contour deformities: long-term follow up
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Fibroblast cells and collagen fibrils are decreased during skin aging and also destructed following acne scars. Recently, autologous fibroblast transplantation has emerged as a novel treatment for regeneration of facial contour deformities. Our objective was to evaluate the safety, efficacy and durability of autologous fibroblast transplantation in patients with wrinkles and acne scar. This single-arm, open-label, phase III clinical trial was studied during 2010 to 2015. Patients aged 15–65 years old with an evaluator’s assessment score of more than 2/7, underwent three injections of autologous cultured fibroblasts in 4-6 week intervals and followed for 2, 6, 12, 24 and 36 months. Collagen type I and vimentin expression, Collagen type I gene expression and Cytogenetic analysis were assessed before transplantation. Safety and efficacy analysis was based on comparisons of the baseline and follow up evaluations and patient assessment scores. 57 patients (37 wrinkle, 20 acne Scar) with 168 treatment sites (112 wrinkle, 36 acne Scar) received the treatment and met the follow up sessions. Patients did not report any serious adverse events during the study. 120 sites (90.1%) of wrinkles and 31 sites (81.6%) of acne scars had at least 1-grade improvement. 6 months average improvements of wrinkle and acne scar treatment sites demonstrated 2 out 7. 56.1% of wrinkle sites and 63.9% of acne scar sites were responders. Long-term follow up sessions showed sustained efficacy and accompanied with patient satisfaction. Autologous fibroblast transplantation could be an efficacious and long-term rejuvenation modality with negligible side effects.

005 Humanized anti-interleukin-31 receptor A antibody nemolizumab (CIM313) suppresses pruritus and improves eczema in patients with moderate-to-severe atopic dermatitis
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We report efficacy and safety of nemolizumab (CIM313), a humanized anti-IL-31 receptor A (anti-IL-31 RA) antibody, in adult patients with moderate-to-severe atopic dermatitis (AD), who were not controlled with topical treatments. In this 12-week, randomized, double-blind, placebo (pbo)-controlled, multinational Phase IIb study, patients received nemolizumab (0.1, 0.5, 2.0 mg/kg every 4 weeks (Q4W), or 2.0 mg/kg (Q4W) or pbo Q4W subcutaneously. Primary endpoint was improvement from baseline (BL) in pruritus visual analogue scale (VAS), measured using itching intensity (%) and itch frequency (%) at the end of 12 weeks. Secondary endpoints included changes in EASI, PSS, and Patient’s Global Assessment (PGI). The results of this Phase IIb study demonstrated at least partial response to ADAew treatment by week 12 showed clinical responses in 52.2% of patients with psoriasis (both, active and remission phase). The prevalence was marked in psoriatic patients on active phase of disease. This study showed increased serum PRL levels in patients with psoriasis vulgaris compared to healthy controls. Prolactin may contribute to psoriasis pathogenesis, by stimulating keratocyte proliferation, T-lymphocyte, promoting angiogenesis. Nonetheless, it could be used as a serologic marker to differentiate between patients with psoriasis and healthy controls. Pharmacological modulation of PRL may represent a future target to restrict the lesions in psoriatic patients.

004 Increased relapses and complications in pemphigus patients treated by the same physicians in a public safety net versus a private university healthcare system
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Access to healthcare and its relationship with socioeconomic status has been documented for different diseases. Information on how different healthcare delivery systems, which vary widely in terms of incentives for doctors, affect the care of patients with complex diseases is lacking. The aim of this study was to determine whether any patient care disparities existed when patients with pemphigus, a severe mucocutaneous autoimmune blistering disease requiring on-going immunosuppression, are treated by the same physicians in two different healthcare systems, i.e., a county-funded safety net hospital system (Safety Net System) and a private university hospital system (Private System). We performed a retrospective chart review study of 65 patients with pemphigus vulgaris and foliaceus who were managed in the Safety Net System (n=34) and Private System (n=31) between July 2001 and May 2015. Patients in the two systems did not differ considerably with regards to applied treatments and achievement of clinical or immunological remission. Patients in the Safety Net System, however, experienced more disease relapses with a shorter recurrence-free survival time after achieving remission and more infectious adverse events. Although the exact causes for these disparities are unknown, the greater rate of medication non-compliance observed in the Safety Net System patients likely played a role. Other potential contributory factors are ethnicity, language, and/or socioeconomic status. Understanding the etiologies of the divergent outcomes within the Safety Net System and the Private System may allow health professionals to optimize the treatment of patients with pemphigus and other complex disorders and to discover system-related processes that are responsible for disease relapses and increased health care costs.

006 Therapeutic response guided dosing strategy to optimize long-term adalimumab treatment in patients with hidradenitis suppurativa: integrated results from the PIONEER phase 3 trials W Gulliver1, MM Okun2, A Martorell3, Z Geng2, X Huang2, Q Tang2, DA Williams2 and K Kim, M Kim and J Park1 1 Dermatology, Clinical Hospital “Dr. Victor Babes”, Bucharest, Bucharest, Romania and 2 AbbVie, North Chicago, IL and 3 Hospital of Manises, Valencia, Spain

Adalimumab 40 every-week (ADAew) dosing is approved for chronic treatment of patients with moderate to severe hidradenitis suppurativa (HS). This study was randomized, double-blind, placebo (pbo)-controlled, double-blind, placebo-controlled, parallel group Design. The resulting Period B subpopulation included 2 sets of patients: HiSCR plus Partial Responders (HiSCR) in the period B (ew/ew vs ew/pbo, respectively) and those who demonstrated at least partial response to ADAew treatment by week 12 showed clinical responders. Among patients in the HiSCR set of Period B, the primary endpoint was the difference in mean change from Baseline to week 12 in abscess or draining abscess or draining fistula count (ADAFIC) at the end of Period B. Multiple predictive statistical models were applied to analyze for the subpopulations of interest; the final subpopulation was proposed by comparing cross-validation performance of these candidate methods via a rigorous statistical framework. The resulting Period B subpopulation included 2 sets of patients: HiSCR Responders (those who achieved HiSCR at week 12) plus Partial Responders (those who did not achieve HiSCR but reached at least 25% reduction in ADAFIC at week 12). The subpopulation was named the PRR Population. The HiSCR rate at the end of Period B for HiSCR responders plus PRR Population was 40%. PRR population (ew) vs. pbo (ew) at week 12 in ADAFIC. The HiSCR rate at the end of Period B for HiSCR responders plus PRR Population was 40%. PRR population (ew) vs. pbo (ew) at week 12 in ADAFIC.