ABSTRACTS

LB942
Ratio of basal cell carcinoma to squamous cell carcinoma in a large U.S. population of patients with psoriasis

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The risk for non-melanoma skin cancer (NMSC) in patients with psoriasis has been reported to be greater than that of the general population. Psoriasis patients have a higher risk of basal cell carcinoma (BCC) than the general population, but the risk of squamous cell carcinoma (SCC) is reportedly even higher. The BCC:SCC ratio in psoriasis patients has not been previously reported. The aim of this study is to determine the ratio of BCC to SCC in a large, midwestern, single center U.S. population of patients diagnosed with psoriasis. We searched a single center data repository comprised of greater than 4 million patients (January 2001 to December 2016) for data from patients (aged 18-89 years) diagnosed as having psoriasis (ICD-9 and 10 codes: N=14704) with a coexisting diagnosis of BCC or SCC. For each patient the age at the time of diagnosis was recorded. The most frequent cutaneous manifestation in AAW (all types) was pigment/ purpura (N=101; 15%). Allergic and non-specific manifestations such as pruritus, urticaria, and maculo-papular rash were most common in EGPA (< p= 0.01) for all patients. Patients with cutaneous lesions were more frequently had systemic manifestations in GPA and EGPA, but not in MPA. The hazard ratio for severe systemic manifestations of vasculitis in AAW (e.g., glomerulonephritis, mononeuritis) was 1.57 (1.21, 2.04) for those with skin involvement. Among those with GPA and EGPA, the hazard ratio (2.0) was significant, but it was not elevated in those with MPA and skin lesions, it was not elevated in those with MPA and skin lesions. More research is needed to determine if OCT can demonstrate characteristic features of cutaneous T-cell lymphoma.

LB945
Atopic dermatitis (AD) and psoriasis (PSO) are the commonest chronic inflammatory dermatoses, which have been commonly treated with topical glucocorticoids (GCs). Although long-term use of topical GCs may induce striae distensae (SD), patients with AD have been felted to develop less SD than patients with PSO. AD is characterized by infiltration of eosinophils and fibrosis in chronic lesions. Therefore, this study was designed to elucidate whether patients with AD have less SD, and the development of more fibrosis of the skin, and tissue eosinophilia than patients with PSO. We found that the degree of fibrosis of the skin was analyzed by the density of fibrous tissues of dermis (DD), and tissue eosinophils were counted. RNA-sequencing and microarrays were performed to identify differentially expressed genes in 6 AD patients versus 5 PSO patients. We confirmed that AD patients have significantly less SD than PSO patients. AD patients expressed significantly less membrane E-cadherin than sun-exposed skin (1.89 +/- 2.7%). Major reasons for not using sunscreen were annoyance of application (79% +/- 3.6%) and an unpleasant feeling on the skin (70% +/- 3.3%). Less than half of participants wore sunscreen as recommended by American Academy of Dermatology (AAD) guidelines. Limitations: Results are based on self-reported data. Conclusions: Knowledge of these behaviors is important for targeted prevention campaigns.

LB946
Optical Coherence Tomography (OCT) for Mycosis Fungoides (MF)

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OCT provides cross-sectional and en-face images of tissue as a "virtual biopsy". Our goal was to determine if OCT can demonstrate characteristic features of cutaneous T-cell lymphoma (CTCL). A 71-year-old woman presented with a large scaly, ulcerated, pruritic pink tumor on the breast consistent with mycosis fungoides (MF), CTCL variant. Under OCT, cross-sectional images revealed large oblong hypo-reflective structures ranging between 0.14 mm and 0.45 mm within the epidermis. En-face images of lesional tissue, compared to clinically uninvolved areas, revealed discrete hypo-reflective "vacuolar" regions appearing to contain perivascular eosinophils. The CTCL was biopsied and histopathology was consistent with CTCL. OCT cross-sectional images were also significantly higher in AD patients. Among the genes, periostin (a systemic biomarker of eosinophilic inflammation and airway fibrosis gene in asthma), MMP12 and MMP28 were increased while TGF-β1, IL-8, CXCL10 and HHR2 were decreased in the AD patients. Collectively, We found that patients with AD develop less SD compared to PSO despite topical GC treatments, which could be due to the formation of skin fibrosis from tissue eosinophilia.

LB947
Progression of chronic sun-damaged skin to actinic keratosis is associated with loss of E-cadherin in keratinocytes

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