The abstracts published here were accepted as online posters and were invited to present their work at the AAD Annual Meeting.

12762

Cutaneous and enteral dysbiosis: A rosacea pilot study from the Twins Day Festival

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Background: Studies have demonstrated a correlation between rosacea and facial cutaneous and enteral microbiome dysbiosis.

Methods: During the 2017 Twins Day Festival, identical and fraternal twins (with and without rosacea, as graded by a board-certified dermatologist) were surveyed about their medical and social histories. Facial cutaneous and enteral microbiome samples were collected from all participants, analyzed for 16S sequences and mapped to an optimized version of existing databases. R was used to perform *t* tests for pairwise comparisons, χ^2 test for categoric comparisons, and microbiome analysis to identify trends in taxa abundance, alpha-diversity, and beta-diversity. Benjamini-Hochberg FDR correction were used to adjust *P* values for multiple comparisons.

Results: In total, 84 individuals with and 44 without rosacea were evaluated. More rosacea individuals owned pets currently ($P = .029$) and consumed alcohol ($P = .006$). Facial cutaneous microbiome showed decreased richness and evenness (raw counts: $P = .019$; Shannon: $P = .049$) and a three to four-fold decrease in abundance of 8 distinct cutaneous bacterial genera in rosacea. Enteral microbiome analysis showed significant reduction in abundance of Ruminococcaceae (FDR = 0.002) and Blautia (FDR < 0.001) and increase in Prevotellaceae (FDR = 0.024) in rosacea. Bacterial loads were similar in facial cutaneous ($P = .36$) and enteral microbiome ($P = .29$). We found no difference within twin sibling pairs.

Conclusions: Environmental factors may alter relative abundances of specific microbial genera and lead to decreased evenness and richness. Further studies are needed with higher severity cases to study the role of dysbiosis in rosacea.

Commercial disclosure: Galderma provided 15% to participate in the Annual Twins Day Festival and obtain microbiome analysis from Diversige.

12797

Safety of long-term proactive management with fixed-dose combination calcipotriene 0.005% and betamethasone dipropionate 0.064% foam in patients with psoriasis vulgaris: Results of a phase III, multicenter, randomized, 52-week, vehicle-controlled trial

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Patients achieving treatment success (physician's global assessment of disease severity [PGA] score 'clear'/'almost clear' with ≥2-grade improvement from baseline) following once-daily Cal/BD for 4 weeks, were randomized 1:1 to twice-weekly Cal/BD or vehicle for 52 weeks. Eligibility criteria: ≥18 years; truncal and/or limb psoriasis at least 'mild' by PGA; involving 2%-30% body surface area (BSA); modified Psoriasis Area and Severity Index score (mPASI) ≥2. Additional criteria for HPA axis subgroup: truncal and/or limb psoriasis at least 'moderate' by PGA; involving 10%-30%, BSA; normal HPA axis function. Safety end points: adverse events (AEs); rebounds (mPASI ≥12 and increase from baseline in mPASI ≥125% or development of more inflammatory disease); effect on calcium homeostasis and HPA axis. 545 patients were randomized to Cal/BD (n = 272) or vehicle (n = 273). Characteristics at randomization were similar between groups. Rate of AEs per 100 patient-years was 165.1 and 156.1, Cal/BD and vehicle groups, respectively. Rate of serious AEs per 100 patient-years was low and comparable (8.2 Cal/BD; 7.8 vehicle), as was rate of treatment-related AEs (2.7 Cal/BD; 4.5 vehicle). Two AEs (chorioretinopathy and pain of skin) were adjudicated as related to long-term corticosteroid use. Three patients (2 Cal/BD [0.7%]; 1 vehicle [0.4%]) experienced AEs leading to discontinuation. Rebound within two months of entering the proactive-management phase occurred in six and seven patients, Cal/BD and vehicle, respectively. Rebound was four times as likely with vehicle (n = 17) compared with Cal/BD (n = 4) following relapse. No clinically relevant effect on calcium metabolism or HPA axis by subgroup analysis was observed.

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12825

Hidradenitis suppurativa and acne vulgaris and conglobata: Systematic review and meta-analysis

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Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin disorder which involves painful nodules and draining abscesses in flexural areas. Acne vulgaris and its more severe variants including acne conglobata and acna fulminans are also disorders involving the follicular unit. Given that follicular obstruction, dilation and inflammation feature in both HS and acne vulgaris/conglobata, it has been suggested that HS is associated with acne vulgaris/conglobata.

Methods: The present systematic review and meta-analysis was performed according to recommended PRISMA guidelines. All eligible case-control studies comparing patients with HS versus non-HS were included in the present review. All studies must have included either the proportion of patients with acne vulgaris/conglobata in each group, or the summary effect size for association between HS and acne vulgaris/conglobata. The odds ratio (OR) was used as a summary statistic.

Results: From pooled unadjusted meta-analysis, we found a significantly higher proportion of patients with acnes vulgaris/conglobata in HS cases compared with controls (OR 3.44, 95% CI 1.95-6.07, $P < .0001$, $I^2 = 100\%$). Pooled meta-analysis was also performed with adjusted effect sizes. This demosntrated that HS was significantly associated with acne vulgaris/conglobata after adjustment for potential confounders (OR 3.44, 95% CI 2.43-4.87, $P < .00001$, $I^2 = 99\%$).

Conclusions: In summary, a significant association was found between HS and acne vulgaris/conglobata. This has implications in terms of understanding the burden of disease on patient quality of life as well as consideration of optimal management strategies to target both disorders. Physicians taking care of patients with HS should be aware of this association.

Commercial disclosure: None identified.

12831

Influence of gender on survival outcomes of dermatofibrosarcoma protuberans surgically treated with wide local excision

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Background: Dermatofibrosarcoma protuberans (DFSP) is a rare cutaneous pathology characterized by locally aggressive invasion with a 2%-5% risk of distant metastasis. Few studies have examined the prognostic signficance of patient demographics and clinical features. Due to the rare occurrence of DFSP, the available literature is limited and evidence still inconclusive. Hence, this study aims to build on the scarce knowledge around this rare pathology by providing new evidence on predictive factors of survival in DFSP.

Methods: Data were retrieved from the Surveillance, Epidemiology, and End Results (SEER) database. To evaluate the effect of gender on overall (OS) and cancer-specific (CCS) survival, we used Kaplan-Meier curves, log-rank test and uni, and multivariable Cox regression. Moreover, we included the following covariates in the final model: age, race, ethnicity, site, grade, stage, median household income, surgery, and radiation.

Results: A total of 952 females with DFSP were compared with 825 males. The most prominent finding in this study was a 1.6 times increased risk of death in males in terms of overall survival when using the adjusted model (HR 1.684, 95% CI 1.164-2.436, $P = .006$). However, sex was not a significant predictor of cancer-specific survival when using adjusted (HR 2.297, 95% CI 0.826-6.390, $P = .111$).

Conclusions: The male sex is a negative predictor of survival in DFSP when adjusted for age at diagnosis, race, site, size, median household income, and treatment. We suggest that more effort should be channeled into looking for reasons to explain this phenomenon and the possible recommendations to mitigate such risks.

Commercial disclosure: None identified.