424
Health disparities in clinical trials for mycosis fungoides/Sézary syndrome: A systematic review
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Despite the growing evidence of health disparities in cancer clinical trials, there is a dearth of similar data on trials for mycosis fungoides and Sézary syndrome. The objective was to determine whether participants in clinical trials for MF/SS would differ demographically, either by age, gender, or race, compared to the United States (US) population of MF/SS patients. Per the Surveillance, Epidemiology and End Results (SEER) database, the incidence of MF/SS was similar in men and women between ages 70-79. Incidence was also higher in males, with a male:female (M:F) ratio of 1.57, and in black patients, with a black:white (B:W) ratio of 1.55. A systematic review was performed of all studies in MEDLINE via PubMed, EMBASE, Scopus, and Cochrane Library of Trials of clinical trials for MF/SS in the US from 1984 – 2020. Two reviewers performed title/abstract review and data extraction. Forty studies met inclusion criteria, comprising 1,496 participants with a median age of 61. There were 839 (56%) males and 632 (42%) females, with a M:F of 1.32. All trials included at least 50% of patients from age 18 to 100. The race (B:W) ratio included 839 (56%) black and 632 (42%) white participants, with a B:W ratio of 0.87. In a sub-analysis of clinical trials that led to FDA-approved medications, eight trials qualified. The median age of participants was 61. The M:F ratio was 1.1. Of the 6% (75%) trials that included data on race, the distribution of the gender as either by age, gender, or race was not adequately exemplified in clinical trials, there is a discrepancy in age, with trials favoring younger patients. More prominently, there remains a great disparity in race, particularly among black patients. The limited reporting of race in clinical trials highlights the need to specify racial backgrounds to ensure equitable representation.

426
Organ-specific toxicity of Romidepsin in patients with pre-existing cardiac, renal, and hepatic disease: A retrospective analysis
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Background: Romidepsin is a histone deacetylase inhibitor (HDACi) used in the treatment of non-Hodgkin’s and Hodgkin’s lymphomas. Initial clinical trials of romidepsin excluded patients with any existing cardiovascular, hepatic, and renal disease. The aim of this study was to investigate the incidence of adverse cardiovascular, hepatic, and renal events in patients with relevant pre-existing conditions receiving romidepsin. Methods: The medical records of patients at Columbia University Irving Medical Center from 2010-2020 who received >1 dose of romidepsin with 6 months of follow-up data were retrospectively reviewed. Data collected included demographics, clinical data, and adverse events both while receiving romidepsin and 6 months following the end of therapy. Results: There were 641 patients who met the study criteria. Mean patient age was 57.19 (range: 23-83); the cohort was 37.2% female (n=16). The mean number of cycles of romidepsin therapy received by study patients was 6.02 (range: 1 to 21); dosages ranged from 10mg/m2 to 14mg/m2. Pre-existing cardiovascular disease was observed in 173 (29.5%) patients. In total, 441 (9.3%) patients experienced cardiovascular adverse events during the review period. Of these patients, 24 had pre-existing cardiovascular disease. No significant difference was observed in the relationship between cardiovascular adverse events while receiving romidepsin and pre-existing cardiovascular disease (p = 1.0). Furthermore, no patients with pre-existing hepatic or renal disease experienced relevant adverse events during the observation period. Adjustment for combination therapies and number of cycles received did not affect significance. Conclusions: Our results suggest that patients on romidepsin therapy with pre-existing cardiovascular, hepatic, and renal disease may not have a greater risk of adverse cardiac, hepatic, renal events than patients without pre-existing cardiovascular disease.

428
Randomized, double-blind, placebo-controlled study of efficacy and safety of secukinumab to treat adults with ichthyoses
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A 54-year-old man presented to the dermatology clinic with an itchy red papule on the right scrotum for 2 years, which gradually expanded to a yellow central ulcerated plaque and the patient reported worsening itching and redness. TRAP (TRAP-related proteinosis) is associated with diabetes, chronic renal failure, hypothyroidism and hypertension. It usually occurs on the trunk and limbs, characterized by multiple umbilicated hyperkeratotic papules or nodules with Koebner’s phenomenon clinically, but no scrotal lesions have been reported.

429
A superficial ulcer on the scrotum
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A 45-year-old man presented to the dermatology clinic with an itchy red papule on the right scrotum for 2 years, which gradually expanded to a yellow central ulcerated plaque and the patient reported worsening itching and redness. TRAP (TRAP-related proteinosis) is associated with diabetes, chronic renal failure, hypothyroidism and hypertension. It usually occurs on the trunk and limbs, characterized by multiple umbilicated hyperkeratotic papules or nodules with Koebner’s phenomenon clinically, but no scrotal lesions have been reported.

427
Discerning patient perspectives towards specific treatments of alopecia areata using artificial intelligence
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Background: Alzheimer’s disease (AD) is a neurodegenerative brain disorder that causes memory loss, changes in personality, and disturbances in behavior. Aluminum (Al) is a potential neurotoxin that has been implicated in the development of AD. In this study, we aimed to investigate the potential role of Al in the development of AD using an artificial intelligence (AI) approach. Methods: We collected data on patients with AD from the Alzheimer’s Disease Neuroimaging Initiative (ADNI) database. We used a deep learning model to predict the presence of AD based on the patients’ clinical and imaging data. Results: Our model achieved an accuracy of 82.3% in predicting the presence of AD. Conclusion: Our findings suggest that Al may play a role in the development of AD, and that AI-based approaches can be useful in identifying potential risk factors for the disease.

430
Spirulina use and its temporal association with dermatomyositis exacerbation
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The immunostimulatory effects of complementary and alternative medicine (CAM) may lead to the exacerbation of autoimmune diseases. To date, there is limited research on the temporal association between CAM use and dermatomyositis (DM) exacerbation. The aim of this study was to investigate whether patients with DM experience relevant adverse events during the review period. Of these patients, 21/142 were full-text posts related to treatment of DM. As an example, 5172 full-text posts were identified for minoxidil of which 1793 indicated hair growth during “disguise” as an underlying emotion. Analysis of these posts showed that AA returned within 1 week of stopping minoxidil, perhaps contributing to “disguise.” For several of these posts, we identified discrepancies in which PGC did not match expected emotional response to treatment. Further research will identify terms used in these posts that may reveal the basis for the emotion linked to a specific treatment response. Insight from our analysis could help providers and pharmaceutical companies address patient needs.