Research

Skin Cancer Detection Using Convolutional Neural Network

In this diagnostic/prognostic study, Han and colleagues evaluated a deep learning algorithm designed to identify facial lesions and predict risk of skin cancer. A total of 924,538 training image crops, including of various benign lesions, were generated with the help of a region-based convolutional neural network. Results suggest that the algorithm can localize and diagnose skin cancer without preselection of suspect lesions by dermatologists. Tschandl provides an Editorial.

Bariatric Surgery and Skin Cancer in Adults With Obesity

Taube and colleagues performed a nonrandomized controlled trial to investigate the association of bariatric surgery with skin cancer incidence. The study included 2007 patients with obesity who underwent bariatric surgery and 2040 contemporaneously matched controls who received conventional obesity treatment. Findings showed that bariatric surgery is associated with a reduction in the incidence of skin cancer, including melanoma, and that there may be an association between obesity and this cancer form.

Dupilumab in Adolescents With Uncontrolled Atopic Dermatitis

Simpson and colleagues conducted a phase 3 randomized clinical trial to evaluate the efficacy and safety of 2 dose regimens of dupilumab for the treatment of moderate to severe atopic dermatitis in adolescents. The study included a total of 251 adolescents with moderate to severe atopic dermatitis that was inadequately controlled by topical medications or for whom topical therapy was inadvisable. The findings appear to support the use of dupilumab for the treatment of adolescents with moderate to severe atopic dermatitis.

Risk of MI and CVA in Patients With Hidradenitis Suppurativa

This retrospective cohort analysis by Reddy and colleagues compared the risk of myocardial infarction (MI), cerebrovascular accident (CVA), and composite disease in patients with hidradenitis suppurativa. From a demographically heterogeneous population-based sample of over 56 million unique patients, individuals with and without hidradenitis suppurativa were identified using electronic health records data. A significantly increased risk of MI or CVA was noted among patients with hidradenitis suppurativa compared with controls. These patients may benefit from screening and early management of modifiable cardiovascular risk mediators.

Quality of Life and Psoriasis Improvement in Children

Bruins and colleagues conducted a cohort study of 319 children with psoriasis to examine whether severity is a factor in quality of life among children with a psoriasis diagnosis in the Netherlands. The highest improvements in quality of life were associated with a reduction of 90% or greater of the Psoriasis Area Severity Index, a reduction of 90% or greater in body surface area, and systemic treatments. These findings suggest that a 90% or greater Psoriasis Area Severity Index response and a decrease in body surface area involvement of 90% or greater may be clinically meaningful treatment goals that will help pediatric patients with psoriasis reach optimal quality of life.