Bias in Studies of COVID-19 in Patients Receiving Biologic Therapy

It remains unclear whether patients with COVID-19 and those who receive biologic therapy for psoriasis or psoriatic arthritis have an increased risk of infection or of a worse outcome. Pla-serico et al. performed an analysis of the quality and potential limitations of 25 published studies on the risk and outcomes of COVID-19 in this patient population. A high risk of bias was identified in all the publications, and none of the studies reached a score of ≥75% on the Newcastle-Ottawa Scale, which measures study quality. Additional studies that include a suitable comparator, a proper sample size calculation, and confirmation of incident cases are required to address the gaps in the current literature before definitive conclusions regarding the risks of COVID-19 in patients on biologic therapy for psoriasis or psoriatic arthritis can be drawn. See page 355.

Impact of Race and Skin Tone on Outcome Measures for Atopic Dermatitis

Kaundinya et al. surveyed 165 articles to assess the psychometric properties of atop dermatitis (AD) outcome measures according to race, ethnicity, and skin tone. Few studies (33%) reported race and/or ethnicity, and these studies used disparate methods to assess these characteristics. In addition, several studies on subjects with skin of color were performed in homogeneous populations within countries, failing to describe how the outcome measures would perform in diverse populations. The impact of race and skin tone on Clinician- and patient-report outcome measures for AD is important to understand to minimize bias in clinical trial results and to inform adequate clinical management of patients with skin of color. See page 343.

Sex Hormones Not Linked with Atopic Dermatitis

In response to conflicting reports of association between serum levels of sex hormones and the presence of AD in adult patients, Kische et al. examined the link between sex hormones and AD in two large population-based studies in adolescence to young adulthood (Behavior and Mind Health Study, n = 979) and in adulthood until old age (Study of Health in Pomerania, n = 992). Neither endogenous androgens nor estrogens were consistently associated with AD, perhaps owing to the low prevalence of AD in these populations, low disease severity in these patients, the type of AD examined, or the dependence of association with fluctuation of sex hormones. See page 486.

mTOR-Targeted Therapy for Epidermolysis Bullosa Simplex

Supportive wound care and symptom management are the mainstays of treatment for epidermolysis bullosa simplex (EBS) because no curative therapy is currently approved. Lee et al. conducted transcriptomic analyses of skin biopsies from acute blisters and nonblistered epidermis in patients with EBS and identified activation of the phosphatidylinositol 3-kinase/protein kinase B/mTOR pathway in acute blistering and wound healing. Employing a systematic drug repositioning screen to uncover additional therapeutic- eutics for EBS, these investigators identified mTOR inhibition as a potential therapy. Clinical results from two patients with plantar keratoderma due to chronic blistering showed that 12 weeks of treatment with the mTOR inhibitor sirolimus resulted in reduced blistering and keratoderma, verifying the computational findings and supporting the additional investigation of this therapeutic approach for EBS. See page 382.