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A Systematic review and meta-analysis investigating the association between atopic dermatitis and anxiety

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Background: Atopic dermatitis (AD) is a chronic inflammatory disorder and has been associated with multiple comorbid conditions including depression and suicide. However previous studies have produced inconsistent results regarding the association of AD with symptoms and diagnosis of anxiety.

Objective: The aim of this present study was to determine whether AD is associated with higher rates of anxiety.

Methods: A systematic review was performed with all published observational studies in Medline, PubMed, Embase, Global Resource for Eczema Trials (GREAT), Latin American and Caribbean Health Sciences (LILACS), the Cochrane Library, Scopus, and PsychInfo databases that investigated the relationship between AD and anxiety. At least two reviewers independently performed study title and abstract review, and data extraction. Pooled random-effects meta-analysis of the proportion of anxiety in patients with vs without AD was performed ($I^2 = 99.3\%$).

Results: Overall, 18 studies reported on the prevalence of anxiety in individuals with and without AD and had sufficient data for meta-analysis. AD patients had increased odds of anxiety overall (12 of 18 studies; pooled unadjusted OR [95% CI]: 1.97 [1.62-2.40], $P < .001$). Similar results were observed in sensitivity analyses of studies assessing mild AD (5 of 5 studies; 2.46 [1.31-4.63], $P < .001$) or severe AD (2 of 3 studies; 3.44 [1.14-10.36], $P < .001$). Two studies also reported on anxiolytics use in patients with vs without AD, both of which showed significantly higher use of anxiolytics in AD patients ($P < .001$).

Conclusions: AD patients have increased symptoms, diagnosis, and treatment for anxiety.

Commercial disclosure: None identified.

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Response to treatment with secukinumab in obese patients with moderate to severe psoriasis

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Background: Obesity negatively affects psoriasis disease severity and treatment response. We evaluated the antiinflammatory effects of secukinumab on skin, fat, and blood in obese patients with psoriasis.

Methods: Patients in the ObePso-S study (NCT03055494) were randomized to secukinumab 300 mg (n = 54) or placebo (n = 28). Efficacy was based on absence of expression of keratin 16 (K16; marker of keratinocyte hyperproliferation) and a PASI90 response at week 12. Changes in levels of glucose, insulin, and inflammatory biomarkers were also assessed.

Results: Overall, 43/82 patients were obese (≥90 kg; secukinumab, 28/54; placebo, 15/28). Mean baseline characteristics were weight, 114.9 kg; PASI, 18.9; time since diagnosis, 12.4 years; insulin level (secukinumab vs placebo), 156.5 vs 168.8 pmol/L; glucose level, 5.5 vs 5.9 mmol/L; C-reactive protein (CRP), 5.6 vs 5.9 mg/L. HOMA-IR scores >2 indicated insulin resistance (5.5 vs 6.8). Overall, 53.5% were current or former smokers. At week 12, secukinumab led to higher responses in K16 expression and PASI90 than placebo (K16-negative, 75.0% vs 0%; PASI90, 51.9% vs 0%). Insulin and glucose levels remained stable with secukinumab (167.1 pmol/L; 5.4 mmol/L), whereas they increased with placebo (253.9 pmol/L; 6.2 mmol/L). HOMA-IR scores were higher with placebo (6.5 vs 10.4). Although significant reductions in CRP levels were observed with secukinumab in the overall study sample, minimal changes were observed in the obese subgroup.

Conclusions: Secukinumab led to better clinical and biochemical improvement than placebo in obese patients. Given that obesity is associated with several comorbidities, encouraging lifestyle changes in these patients may improve therapeutic outcomes.

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The association between prurigo nodularis and mental health comorbidities: A systematic review and meta-analysis

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Introduction: Prurigo nodularis (PN) is a chronic skin disease associated with intractable pruritus and disfiguring lesions, which may lead to psychosocial distress and mental health (MH) comorbidity. However, previous studies found conflicting results about the association between PN and mental health (MH) conditions.

Objective: To determine the association between PN and MH comorbidities.

Methods: A systematic review was performed of all published studies in Medline, Embase, Scopus, Web of Science, and Cinahl databases. All studies that investigated PN and mental health comorbidities were included. At least 2 independent reviewers conducted study title/abstract review, full-text screening, and data extraction. Pooled random-effects meta-analysis of the proportion of MH comorbidities in patients with versus without PN was performed ($I^2 = 99.3\%$).

Results: Overall, 14 studies had sufficient data for meta-analysis and reported on the prevalence of mental health comorbidities in PN patients; including 7 controlled studies. Patients with vs without PN had significantly higher prevalences of depression (5 of 7 studies; pooled random-effects: 38% vs 11%, $P < .0001$), suicidal ideation or completed suicide (2 of 3; 7% vs 2%, $P < .0001$), and anxiety disorders (2 of 5; 41% vs 25%, $P < .0001$), but not obsessive-compulsive disorders (0 of 2; 11% vs 8%; $P = .56$), schizophrenia and related delusional disorders (1 of 3; 4% vs 5%, $P = .13$), and psychiatric disorders not classified elsewhere (0 of 2; 73% vs 60%, $P = .08$).

Conclusions: PN is associated with increased prevalence of multiple mental health comorbidities.

Commercial disclosure: None identified.

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Paraneoplastic dermatomyositis in a patient with an oligodendroglioma

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A previously healthy 26-year-old white man presented with nausea, headache, and rash. Physical examination disclosed coalescing, erythematous to violaceous macules and patches on the eyelids, periorbital regions, cheeks, upper chest, shoulders, upper back, and posterior neck, and mild periorbital edema. Review of systems was positive for myalgias. Histopathologic examination of a shoulder lesion demonstrated vacuolar interface dermatitis and a sparse, superficial perivascular dermal lymphocytic infiltrate. Colloidal iron staining demonstrated dermal mucinosis. Based on these findings, the diagnosis of dermatomyositis was made. Labs demonstrated elevated serum creatine kinase (673 U/L); tests for rheumatoid factor, anti-nuclear antibodies, anti-SSA and anti-SSB antibodies, immunoglobulin subclasses, and a myomarker panel were within normal limits. A head MRI demonstrated a cystic mass in the right insula; stereotactic biopsy was consistent with an oligodendroglioma. He received a 60 mg oral dose of prednisone, and topical triamcinolone 0.1% and hydrocortisone 2.5% ointment. Within 10 days the rash completely resolved. He underwent a craniotomy for tumor resection several weeks after initial presentation. At follow-up four months later, he showed no recurrence of myalgias or rash. Ovarian, lung, and gastrointestinal cancers are most commonly associated with dermatomyositis in the Western world. To our knowledge, only 2 previous cases of dermatomyositis associated with an intracranial neoplasm have been reported: in a 39-year-old man following dendritic cell immunotherapy for an oligoastrocytoma and in a seven-year-old girl with a choroid plexus papilloma. Our case adds oligodendroglioma to the list of potential neoplasms to be considered when assessing a patient with dermatomyositis.

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