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Risks of COVID-19 infection and mortality for patients on biologics

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During the ongoing coronavirus disease 2019 (COVID-19) crisis, data on risks of immunomodulatory biologics have been limited, causing uncertainty for patients and providers. Whether to continue biologic therapy for chronic skin disease. We aimed to investigate whether patients treated with biologics were at an increased risk for COVID-19 infection and all-cause mortality once infected. We performed a retrospective study of 7,361 patients prescribed biologics and 74,910 matched controls, cross-referenced with the Massachusetts Department of Public Health COVID-19 infection and all-cause mortality data through June 19, 2020. We included patients in the Mass General Brigham system with at least 1 prescription for a biologic between January 20, 2020, and February 29, 2020. Nonlogistic regression was used on matched data to calculate the odds ratio (OR) for COVID-19 infection between patients on biologics and controls, adjusting for age, gender, race, Charlson Comorbidity Index (CCI) severity grade, median income, and local infection rate. Multivariate Poisson regression was performed on COVID-19 positive patients to compare all-cause mortality. The risk of COVID-19 infections and all-cause mortality was no statistically significant difference between patients treated with biologics and matched controls. Patients treated with biologics were at an increased risk for COVID-19 diagnosis (OR 1.08, 95% CI 1.01-1.16, p = 0.025) and subsequent mortality (OR 1.38, 95% CI 0.62-3.07, p = 0.38). A given absence of evidence that patients treated with biologics are more susceptible to COVID-19, patients should be encouraged to continue their therapy to prevent disease progression during this pandemic.

Clinical outcomes in COVID-19 patients with dermatomyositis

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Dermatomyositis (DM) is a chronic inflammatory disorder that not only affects the skin and muscles but is also associated with malignancies and other disorders. There is currently scant literature on the outcomes of COVID19 patients with DM and aim was to examine the impact of AD on COVID19 complications. A retrospective cohort study was done using TriNetX, a national federated real-time database of 6.1 million records. COVID DM patients cohorts were identified by validated ICD-10 and serumology codes per CDC guidelines. An 1:1 matched propensity score analysis was conducted, adjusting for comorbidities and demographic outcomes. We identified 548 COVID-19 positive patients with DM, compared to 16438 COVID-19 positive patients without DM. There was a statistically significant difference between DM patients and controls in hospitalizations (DM OR 1.84, 95% CI 1.18-2.89), respiratory failure (OR 1.73, 95% CI 1.04-2.85), and death (OR 1.6, 95% CI 0.94-2.67). Subgroup analysis showed that patients with a history of immunosuppressant use had a significantly higher risk of hospitalization and death in COVID19 patients compared to patients without a history of immunosuppressants. Continuing research on the long term impacts of COVID on DM patients is needed.

Impact and associations of atopic dermatitis out-of-pocket healthcare expenditures in the United States

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Atopic dermatitis (AD) is associated with substantial financial costs including increased out-of-pocket (OOP) costs. However, associations and impact of OOP cost on household financial well-being are not well understood. To characterize the impact and associations of elevated OOP healthcare expenses for AD management, a 25-question voluntary online survey was administered to National Eczema Association members (n = 113,502). Inclusion criteria (U.S. residents age 18 years who either self-reportedly had AD or were primary caregivers of patients with AD) was met by 77.3% (1,118,447) of respondents. Respondents with monthly OOP expenses for co-pays and/or deductibles for AD-related HCP office visits; prescription copayment, use of step-down therapy, comorbid food allergy, and frequent skin infections (P < 0.005 for all). Approximately two-thirds (624, 64.6%) reported a moderate, significant, or devastating impact of OOP expenses on household finances. Predictors of harmful financial impact included severe AD (adjusted odds ratio [95% confidence interval]: 2.62 [1.11-6.19], P = 0.026) and patients without a history of corticosteroid use (2.80 [1.62-4.82], P < 0.0007). $200 OOP monthly expenditures (2.16 [1.45-3.22], P = 0.0006), and $1,000 annual expenditures for AD (4.56 [3.16-6.27], P < 0.0001). OOP healthcare expenditures for AD significantly impact household finances. Clinical interventions are needed to minimize OOP expenses for AD patients while striving for optimal care outcomes.