Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Adverse events associated with hydroxychloroquine use in cicatricial alopecia patients

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The anti-malarial hydroxychloroquine (HCQ) is a common treatment for cicatricial alopecias (CA). Serious adverse events include prolonged QT interval, ventricular arrythmias and irreversible retinopathy. There is limited literature on the incidence of adverse events in CA patients taking HCQ. A retrospective analysis was performed of 60 CA patients, mean age 60 years, prescribed HCQ. Alopecia diagnoses included lichen planopilaris, frontal fibrosing alopecia, discoid lupus, central centrifugal cicatricial alopecia and folliculitis decalvans. Average length of HCQ treatment was 2.98 years. Dosing ranged from 100 to 400 mg daily. 83.3% of patients did not experience an adverse event. Adverse events that occurred include GI distress (n=5), tinnitus or other hearing-related changes (n=2), and allergic skin rash (n=1). One patient developed non-sustained ventricular tachycardia (NSVT) 17 months after starting HCQ 400 mg daily. During her hospitalization, no structural cardiac abnormalities were revealed, and the cause of the NSVT was not determined. She was prescribed daily estradiol-norethindrone hormone replacement therapy (HRT) for several years prior to the NSVT. Her medical history was significant for congestive heart failure and remote history of pulmonary hypertension and left ventricular hypertrophy. The patient permanently discontinued both medications. She has not developed another NSVT episode and remains healthy. Within our cohort, there were no other cardiac related events despite some patients taking concomitant medications known to increase risk of QT prolongation. These patients were monitored with regular electrocardiograms. The risk of HCQ-associated retinopathy increases with > 5 years of cumulative use. No patients included in our analysis developed retinopathy, including the 6.67% taking HCQ for > 5 years. We demonstrate that while adverse events may occur during treatment, HCQ is generally well tolerated by CA patients. We hope this will help support treatment discussions with CA patients.

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COVID-19 complications in vitiligo patients: A multicenter study

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Vitiligo is an autoimmune disorder that leads to the destruction of melanocytes. It has been shown to be associated with comorbidities which may increase the risk of worse COVID-19 outcomes. Limited data on COVID-19 complications in vitiligo patients exists and as COVID-19 cases continue to rise worldwide, it is important to assess this. A retrospective analysis was done using TriNetX, a multicenter deidentified database of ~80 million records. COVID-19 patients were identified by validated ICD-10 and serology codes per CDC guidelines and then split into vitiligo and non-vitiligo cohorts. Patients who were vaccinated for COVID-19 prior to infection were excluded. An 1:1 matched propensity score analysis was conducted, adjusting for comorbidities and demographics, to calculate adjusted Risk Ratios (aRR) with 95% confidence intervals (CI) for COVID-19 related complications in 30-day follow up. Subgroup analysis for vitiligo patients with a 1-year history of systemic steroids was also performed. In a matched sample of 2009 patients in each cohort, vitiligo patients had a lower risk in hospitalization (aRR[95%CI]=0.764[0.65,0.88]) and mortality (0.62[0.39,0.99]) compared to non-vitiligo patients. No differences between cohorts was seen for acute respiratory distress syndrome (1.07[0.6,1.7]), sepsis (0.84[0.6,1.2]), thromboembolic events (0.89[0.5,1.5]), acute kidney injury (0.79[0.6,1.1]), and mechanical ventilation (0.9[0.6,1.3]). Subgroup analysis revealed 1-year systemic steroid use increased hospitalization risk (1.52 [1.1,2.2]) compared to controls. Vitiligo may confer protective effects against COVID-19 complications, possibly due to increased interferon signaling found in vitiligo patients that is known to disrupt COVID-19 signaling and thus preventing worse outcome. However, additional studies are warranted to examine the long-term effects of COVID-19.

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Tetracyclines are associated with development of new hyperpigmentation in acne patients

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Acne is the most common skin condition in the United States, affecting up to 90% of people at some point in their lives. It is frequently accompanied by post-inflammatory hyperpigmentation, which affects skin of color with greater severity. Tetracyclines are the most widely prescribed oral antibiotics for acne and have been proven effective against moderate to severe inflammatory subtypes, but previous studies have shown that tetracyclines are independently associated with hyperpigmentation. Given their antagonistic anti-inflammatory and pro-hyperpigmentation effects, it is important to characterize the risk of hyperpigmentation associated with tetracyclines in different skin types. Using retrospective data collected from 44 institutions in the TriNetX database, we identified 1,018,736 patients with a diagnosis of acne. From this cohort, we identified patients who were prescribed doxycycline (n=150,715), minocycline (n=43,975), and cephalexin (n=38,112) as an oral antibiotic monotherapy. Patients diagnosed with melasma or prescribed isotretinoin at any time were excluded. Patients with a prior history of hyperpigmentation were also excluded. In our study, patients given doxycycline (OR 1.66, p<0.0001) and minocycline (OR 1.58, p<0.0001) were more likely to have developed new hyperpigmentation compared to those given cephalexin. Among different racial groups, the odds of new hyperpigmentation associated with doxycycline versus cephalexin was highest in Hispanics (White: OR 1.19, p=0.018; Black: OR 1.54, p=0.001; Hispanic: OR 1.90, p=0.001; Asian: OR 1.35, p=0.337). The odds associated with minocycline versus cephalexin was highest in Blacks (White: OR 1.23, p=0.008; Black: OR 1.44, p=0.009; Hispanic: OR 1.00, p=0.991; Asian: OR 1.09, p=0.785). Our results suggest that doxycycline and minocycline are risk factors for new hyperpigmentation in acne patients of all racial groups. These associations should be taken into consideration when prescribing acne treatment regimens.

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The impact of childhood stressful life events on atopic dermatitis disease activity and severity: A prospective study

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Stress has been associated with atopic dermatitis (AD), however, longitudinal data on the association with AD course are limited. We aimed to examine whether stressful life events are associated with increased AD disease activity and severity throughout childhood using the Avon Longitudinal Study of Parents and Children prospective English birth cohort, comprised of 13,972 children with assessments from birth. The primary exposure was a standardized, age-appropriate scale of stressful life events repeated at 7 times points between ages 1.5 and 8.5. The primary outcome was a repeated measure of AD period prevalence, as defined by caregiver-reported symptoms of flexural dermatitis. The annual period prevalence of AD ranged from 18-21%. For each standard deviation (SD) increase in stressful life events across childhood there was an increased risk of AD activity (OR: 1.07; 95% CI 1.04-1.16), and the association was largest with severe disease (OR 1.13, 95%CI 1.02-1.23). There was no effect modification by the presence of filaggrin gene null mutations or history of asthma or rhinitis. Given the nature of the stressful life events measured, reverse causality is not likely to be an explanation for the results. In a large, prospective, population-based study, we found that stressful life events in childhood confer a small, but significant, risk in increased AD activity and severity. These findings suggest that the impact of stress-reducing interventions should be further investigated in those with AD.

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The burden of alopecia areata (AA) vs psoriasis (PsO) in the United States

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The well-established disease burden of PsO can provide a benchmark for understanding the disease burden of other immune-mediated dermatologic disorders that may be associated with high health care resource utilization (HCRU), such as AA. The objective was to describe the economic burden of patients with AA vs PsO aged ≥12 years. A retrospective analysis using IBM MarketScan Commercial & Medicare databases was conducted to identify patients aged ≥12 years with ≥2 claims of either AA (ICD-10-CM: L63.x) or PsO (ICD-10-CM: L40.x) recorded between 1 Jan 2016−31 Dec 2019. The date of first recorded diagnosis for either AA or PsO (patients with both were excluded) was the index date, with ≥12 months continuous enrollment before and after the index date. Demographic and clinical characteristics were used to propensity match AA patients to PsO patients using a 1:2 ratio. Descriptive analyses were performed with the matched cohorts for demographic and clinical characteristics, treatment, and healthcare resource use in the pre-index period. Annualized mean all-cause costs were compared in both groups in the post-index period. The matched analysis included 17,081 and 33,687 patients with AA and PsO, respectively. Mean age was 40.8 and 41.3 years and females comprised 61.6% and 63.6% of patients, respectively. Mean (SD) medical costs during the post-index period were $7,457 ($31,992) and $10,310 ($33,392), respectively (standardized difference [stdiff]: 0.09). Mean (SD) pharmacy costs were $2,470 ($8,851) and $11,421 ($23,746) in the post-index period, respectively (stdiff: 0.5). This analysis of patients with matched demographic and clinical characteristics demonstrated the substantial economic burden of AA, with medical costs approaching those of PsO. Differences observed in pharmacy costs may be due to the lack of approved therapies for AA. As treatment options for AA are developed, it will be important to continue evaluating the impact of effective therapies on cost burden.

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Association of hidradenitis suppurativa with a Crohn's disease panel

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Hidradenitis suppurativa (HS) is a chronic, debilitating inflammatory skin disease. Crohn's disease (CD) is among the most reported comorbid disorders in HS patients. Concurrent HS and CD are frequently associated with perianal disease that requires immunosuppressive therapy and surgery. We sought to identify unrecognized IBD associated with HS using a commercially available panel of serologic, genetic, and inflammatory markers with high specificity and sensitivity for CD (CD+) (IBD-sgi™ Panel, Prometheus Laboratories, San Diego). This test has not been previously evaluated in an HS cohort. An IRB-approved retrospective chart review of patients receiving care at the Einstein/Montefiore HS Center (HSC) was conducted between August-December 2021. All participants (n=272) were screened with a standard of care IBD-sgi™ panel. Overall, 121 patients (44.5%) were CD+. Comparing CD+ and CD- participants, we found no differences regarding age or gender. By contrast, CD+ participants had elevated HS-PGA(3.8±1.2 vs. 2.9±1.2, p<.001) and pain scores(6.2±3.2 vs. 4.2±3.5, p<.001). Those found CD+ had a higher frequency of HS involving groin and buttocks (p<.001). Indicators of HS severity associated with CD positivity included a significantly higher frequency of treatment with anti-TNF biologics, IV antibiotics, as well as intralesional and intramuscular corticosteroid injections (p<.002). Moreover, CD positivity was associated with lower hemoglobin (p<.001), leukocytosis (p<.01), and increased inflammatory markers (erythrocyte sedimentation rate (p<.001), C-reactive protein (p<.001), interleukin-6 (p<.007)). There were no differences in rates of CD positivity when HS primarily involved axillae, breast, abdomen, and thighs. Our findings unexpectedly revealed 44.5% of HS patients were CD+. Those screening CD+ had more severe disease involving the groin and buttocks. The association of CD positivity and IBD remains unclear. Further investigation of IBD screening in HS patients is needed.