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**Pregnancy outcomes in women with psoriasis, psoriatic arthritis, Crohn disease and ulcerative colitis treated with ustekinumab**



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Background: Ustekinumab (UST) is indicated for psoriasis (PSO), psoriatic arthritis (PsA), Crohn disease (CD), and ulcerative colitis (UC). The recommended dose in CD/UC is generally higher than in PSO/PsA. No adverse pregnancy outcomes were observed in preclinical studies. Here we present pregnancy outcomes from spontaneous reporting, clinical studies and registries.

Methods: This dataset includes pregnancies with maternal exposure to UST during pregnancy or within 3 months prior to conception reported to the manufacturer through April 2019.

Results: Overall, 478 maternal pregnancies (334 PSO, 124 CD, 11 UC, 9 PsA) were identified. Mean maternal age was 30.5 years. Most pregnancies (71.3%) resulted in live births (LB, [including 20 preterm births; PTB]). Spontaneous abortion (SA) was reported in 18.4% of cases. Congenital anomalies (CA) were reported in 3.8% (3.3% major CA [MCA]). Pregnancies with UST exposure throughout gestation (12.1%) resulted in 55 (94.8%) LB including 4 (7.3%) PTB, and 5 (8.6%) MCA. Among pregnancies with exposure in Trimester 1 (66.5%), 207 (65.1%) LB including 11 (5.3%) PTB, and 2 (0.6%) MCA were reported. Among PSO/PsA maternal pregnancies, rates were 72.3% LB, 2.0% CA (1.4% MCA), and 16.9% SA; among CD/UC maternal pregnancies, rates were 68.9% LB, 4.4% MCA and 22.2% SA.

Conclusions: Pregnancy outcome data following maternal exposure to UST showed that the prevalence of live births, spontaneous abortions and congenital anomalies were consistent with the general population and TNF inhibitor therapies. Pregnancy outcomes in women with CD/UC and PSO/PsA were generally comparable. No apparent safety signals were noted with exposure throughout pregnancy.

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**Use of facial care products and frontal fibrosing alopecia: Is it coincidence or true association?**



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Background: Frontal fibrosing alopecia (FFA) is a variant of lichen planopilaris which usually involves the frontal hairline and sideburns. The increasing incidence of FFA over the last few decades suggests that environmental factors may be related to the pathogenesis. Recently, there are few studies reported the potential association between the use of facial care products and FFA.

Objective: To identify an association between the use of facial care products and FFA in Thai females.

Methods: A total of 250 females (50 FFA patients, 100 age-matched normal controls, and 100 subjects with pattern hair loss [PHL]) were recruited to the study and completed the questionnaire which enquired about the exposure to facial care products and various environmental factors.

Results: The use of moisturizer was significantly increased in the FFA group compared with normal controls ( $P < .001$ ), whereas the frequency of sunscreen use was significantly increased in PHL group compared with normal controls ( $P < .001$ ). Moreover, Subjects with FFA and PHL showed significantly higher rates of both sunscreen and moisturizer use compared with normal controls. Meanwhile, more than half of normal controls denied application of both facial care products, which is significantly greater than FFA and PHL groups ( $P < .001$ ).

Conclusions: We report the high frequency of moisturizer and sunscreen use in both FFA and PHL in female patients. Therefore, the use of facial care products may not be linked to the true disease mechanism of FFA but it is coincidence because of patient's high self-concern.

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**The economic burden of mild to moderate atopic dermatitis in the United States: Analyses of the National Health and Wellness Survey**



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Background: Although atopic dermatitis (AD) is associated with substantial economic burden resulting from direct costs and indirect costs from lost productivity, few studies assessed these outcomes in mild to moderate AD.

Design: Cross-sectional real-world study.

Methods: US adult participants in the global 2017 NHWS who self-reported physician-diagnosed AD/eczema and mild or moderate severity were compared with propensity score-matched non-AD/eczema controls using chi-square/analysis of variance. Respondents reported productivity in the past 7 days (Work Productivity and Activity Impairment questionnaire), currently on short- or long-term disability (yes/no), and health care resource utilization (HCRU) in the past 6 months (number of health care provider [HCP] visits, emergency room [ER] visits, and hospitalizations).

Results: 4496 respondents reported an AD/eczema diagnosis, 4321 with mild to moderate severity (69.1% female; overall mean age 42.9 years; 74.5% mild, 25.5% moderate; 57.4% employed). For patients with mild or moderate AD/eczema versus controls, increased rates of absenteeism (5.3%, 7.2% vs 5.4%;  $P = .0251$ ), presenteeism (19.7%, 26.6% vs 18.1%;  $P < .0001$ ), work impairment (21.8%, 29.1% vs 20.0%;  $P < .0001$ ), activity impairment (26.8%, 32.3% vs 24.4%;  $P < .0001$ ), and disability (5.4%, 5.4% vs 4.0%;  $P = .0060$ ) were reported. Increased HCRU in past 6 months was reported for mild or moderate AD versus controls (HCP visits: 5.34, 5.30 vs 4.11; ER visits: 0.25, 0.34 vs 0.24; hospitalizations: 0.12, 0.18 vs 0.11;  $P < .05$  for all).

Conclusions: Results from this large general population study indicate that adults with mild to moderate AD in the US have lower work productivity, increased activity impairment, and increased HCRU versus controls. The burden of mild AD was similar to moderate AD in most cases.

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**Dupilumab-associated ocular surface disease: Clinical characteristics and treatment**



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Dupilumab is the first biologic medication approved for treatment of moderate to severe atopic dermatitis (AD). While few adverse events were reported in clinical trials, increased incidence of conjunctivitis with dupilumab vs placebo was consistently observed. The optimal treatment for dupilumab-associated ocular surface disease (DAOSD) has not been well established. This study aims to describe the spectrum of clinical presentations of DAOSD, and to evaluate therapeutic responses. Retrospective chart review of patients with AD and DAOSD who received ophthalmologic evaluation at Oregon Health & Science University from 2014 to 2019 yielded 29 patients (mean age 46 years; M/F: 12/17). Facial and eyelid AD were observed in 26 (90%) and 19 (66%) patients, respectively. Common ocular symptoms included irritation ( $n = 26, 90%$ ), redness ( $n = 24, 83%$ ), pruritus ( $n = 18, 62%$ ), and tearing ( $n = 18, 62%$ ). Twenty-two patients were diagnosed with conjunctivitis, 4 blepharitis, 2 keratitis, and 1 other. Topical steroids were the most commonly utilized therapy (67%), and 89% of these experienced moderate improvement or full resolution. Other therapies included artificial tears ( $n = 5$ ), antihistamine drops ( $n = 4$ ), lifitegrast ( $n = 3$ ), tacrolimus ointment ( $n = 2$ ), and cyclosporine ( $n = 1$ ). Three patients discontinued dupilumab because of severe DAOSD. This study's results suggest that patients with facial and eyelid AD may be more susceptible to DAOSD. This study also provides insight into the common ocular symptoms associated with DAOSD, which may prove useful when screening dupilumab-treated AD patients for ophthalmology referral. Very few patients discontinued dupilumab due to DAOSD, suggesting the symptoms may be controllable with ocular therapies with high efficacy rates observed with topical steroids.

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