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### A systematic review of drug-induced pemphigoid

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**Background:** Abstract Pemphigoid is an autoimmune subepithelial inflammatory disease that is characterised by the generation of pruritus followed by urticarial plaques and finally bullae on the skin and mucosa. Drug-induced pemphigoid (DIP) is a term used to describe instances of pemphigoid demonstrating clinical, histologic, or immunopathologic features identical or similar to those of the idiopathic form of the disease, induced by the systemic ingestion, or topical application of particular drugs. In this report, we concisely describe the epidemiology, genetic implications, aetiology, pathophysiology of the drug reaction, followed by a comprehensive discussion of the drugs implicated in drug-induced pemphigoid.

**Methods:** We performed a comprehensive search of the literature according to the PRISMA guidelines using the PubMed, Medline, Embase and Cochrane Library, Scopus, ProQuest, and Web of Science databases. Search criterion used to facilitate this were: ["Pemphigoid, Bullous/chemically induced" MeSH]. The search was limited those published before January 13, 2019. Case-control studies and case reports were identified. Further studies were identified through manual evaluation of the references included in the retrieved publications.

**Results and Conclusions:** At present, more than 90 medications have been associated with inducing pemphigoid. An appreciation of the medications associated with pemphigoid enables clinicians to identify potential cases of DIP earlier and cease the offending medication. With contemporary studies continuing to investigate genetic susceptibility, underlying mechanisms and natural history of DIP we are likely to develop a greater understanding of those predisposed to the condition, and the medications that may place the certain groups at risk.

*Commercial disclosure: None identified.*

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### Efficacy and safety of tildrakizumab 100 mg for plaque psoriasis in patients randomized to treatment continuation versus treatment withdrawal with retreatment upon relapse in reSURFACE 1

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**Background:** Residual psoriasis after tildrakizumab (TIL) treatment interruption, relapse, and retreatment was analyzed post hoc.

**Methods:** Adult patients receiving TIL 100 mg who achieved  $\geq 75\%$  Psoriasis Area and Severity Index (PASI) improvement at wk 28 in the double-blind, randomized, controlled phase 3 reSURFACE 1 (NCT01722331) [1] study were rerandomized to placebo (n = 113) or TIL 100 mg (n = 116). PASI and adverse events (AEs) were evaluated through wk 64. On relapse ( $\geq 50\%$  loss maximum PASI) patients received TIL 100 mg; efficacy analyses included retreated patients (success: regaining  $\geq 50\%$  maximum PASI)  $\geq 12$  weeks. Missing data were imputed using last-observation-carried-forward.

**Results:** Relapse occurred in 61/113 patients rerandomized to placebo: median PASI at baseline, wk 28, and relapse was 20.3, 0.8, and 11.0, respectively. Median relapse time was 238 days. Among 51 patients retreated  $\geq 12$  weeks, median response time was 28 days. Median PASI was 5.9, 3.2, and 2.7 after 4, 8, and 12 weeks of retreatment; at wk 64, 72.1%/31.2%/13.1% achieved PASI 75/90/100, respectively. Of patients rerandomized to placebo, 52 did not relapse: median PASI was 0.8, 2.6, and 4.0 at wk 28, 52, and 64, respectively. Of patients continuing TIL, 8/116 patients relapsed; wk 64 median PASI was 1.4. Response was maintained in 93.1% of patients on TIL: median PASI at wk 28, 52, and 64 was 1.0, 1.0, and 1.2, respectively. In 2/113 patients rerandomized to placebo, 2 prespecified AEs (cerebellar infarction, basal cell carcinoma) occurred; 3/135 continuing TIL reported 4 (basal cell carcinoma, Bowen disease, carcinoma in situ of skin, sinusitis).

**Conclusions:** Relapse was successfully retreated.

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### M89, a combination of 89% Vichy mineralizing water and hyaluronic acid reinforces the skin barrier and shows efficacy and high tolerability in various facial inflammatory dermatoses and esthetic procedures as adjunct



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**Background:** M89 containing 89% of Vichy mineralizing water and hyaluronic acid, has been developed to reinforce the skin barrier.

**Objective:** to assess efficacy and tolerance assessment of M89 in different facial inflammatory dermatoses, including rosacea and after different esthetic procedures.

**Methods:** Adults with various facial dermatoses or having undergone esthetic procedures applied M89 twice daily for 4 weeks as adjunct to their standard treatment. Information on demographics, skin characteristics, reason for use, clinical signs and subject-reported symptoms, investigator and subject satisfaction, and tolerance were collected.

**Results:** Data from 1630 subjects were analyzed. 92.5% were women; mean age was  $41.1 \pm 11.3$  years. Dermatologic conditions accounted for 32.5% (25.3% sensitive skin and 12.1% rosacea). After 4 weeks, the percentage of subjects with erythema, desquamation or irritation had decreased by 24.6%, 30.7% or 42.9%, respectively, and 92.3% reported hydrated skin, symptoms had improved; changes were statistically significant ( $P < .0001$ ). Skin was soothed in 97.7% of subjects and 98.2% appreciated the texture of M89. Subjects with rosacea had mainly sensitive and dry skin (93.5% and 68.3%, respectively). Erythema, desquamation and irritation evaluated by dermatologists significantly improved ( $P \leq .0339$ ). Perceived skin hydration (increased 71.4%,  $P < .0001$ ) and cutaneous symptoms all significantly improved (dryness:  $-4.6 \pm 2.4$ , burning sensation:  $-3.2 \pm 1.7$ , itching:  $-1.4 \pm 2.3$ , stinging/tingling:  $-3.2 \pm 2.0$ , all  $P < .0001$ ). Almost all subjects reported soothed skin (96.4%) and appreciated the texture (97.9%) of M89. Subjects and investigators were highly satisfied.

**Conclusions:** In patients with various facial inflammatory dermatoses and post-procedural irritation, M89 was an effective adjunct in reducing signs and symptoms with high levels of satisfaction.

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### The risk of psoriasis in patients with allergic diseases: A nationwide population-based cohort study



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Allergic diseases include atopic dermatitis (AD), allergic rhinitis (AR), asthma, etc. Until now, the association between allergic diseases and psoriasis has not been established. We investigated to determine the risk of psoriasis in patients with allergic diseases. This was a nationwide population-based cohort study. The data from subjects (n = 9,718,722; age  $\geq 20$  years) were analyzed in this study. The incidence rates of psoriasis per 1000 person-years were 9.574, 3.777, and 4.275 in the AD group, AR group, and asthma group, respectively. The AD group showed a significantly increased risk of developing psoriasis (hazard ratio [HR] 3.178, 95% confidence interval [CI] 3.052-3.309), after adjustment of confounding factors. In addition, AR group (HR 1.32, 95% CI 1.305-1.335) and asthma group (HR 1.296, 95% CI 1.268-1.325) also showed a significantly increased risk of developing psoriasis, respectively. The risk of developing psoriasis tended to increase with the number of accompanying allergic diseases. In the presence of all three allergic diseases, the HR of psoriasis was 3.157 (95% CI 2.701-3.689). Allergic diseases, especially AD, may be a risk factor for psoriasis.

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