Reply to research letter



To the Editor: In light of the current coronavirus disease 2019 (COVID-19) pandemic, scientists have debated the safety of immunosuppressive biologic therapies. We read with interest the letter by Wan et al, "The risk of respiratory tract infections and symptoms in psoriasis patients treated with interleukin 17-pathway inhibiting biologics: A meta-estimate of pivotal trials relevant to decision-making during the COVID-19 pandemic." We agree that caution should be used when exposing patients to systemic biologic agents in the setting of not only COVID-19 but also any acute or chronic infection, as Kaushik and Lebwohl² have previously emphasized.

In the authors' analysis, ixekizumab treatment groups did not report a significantly increased rate of respiratory tract infections (RTIs). Despite an elevated rate of RTIs in the brodalumab and secukinumab treatment groups, the study included oropharyngitis, oropharyngeal pain, and pharyngolaryngeal pain in their definition of RTI. Interleukin 17 is known to be associated with monilial infections³; therefore, thrush and esophagitis could potentially explain these increased rates and should have been excluded from the analysis.

Furthermore, the rate of infection was higher in the placebo group in some studies. For example, the AMAGINE-2 (P3 Study Brodalumab in Treatment of Moderate to Severe Plaque Psoriasis) trial reported an increased rate of upper RTI and rhinitis of 7.44% and 0.65% in placebo groups vs 5.39% and 0.33% in treatment groups, respectively. Similarly, the AMAGINE-3 (Efficacy and Safety of Brodalumab Compared With Placebo and Ustekinumab in Moderate to Severe Plaque Psoriasis Subjects) trial reported increased rates of nasopharyngitis and influenza of 5.11% and 1.92% in the placebo groups vs 4.97% and 1.28% in the brodalumab treatment groups, respectively. Placebo groups also experienced increased rates of nasopharyngitis (8.47% vs 5.08%), upper RTIs (1.69% vs 0%), and nasal congestion (1.69% vs 0%) compared with treatment groups during the FEATURE (First study of sEcukinumAb in prefilled syringes in subjecTs with chronic plaqUe-type psoriasis Response) trial.

We realize that data can be included or excluded to display a certain desired outcome and hope such findings do not discourage clinicians from treating patients with the most efficacious biologic therapies available.

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Reprints not available from the authors.

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REFERENCES

- Wan MT, Shin DB, Winthrop KL, Gelfand JM. The risk of respiratory tract infections and symptoms in psoriasis patients treated with interleukin 17 pathway-inhibiting biologics: a meta-estimate of pivotal trials relevant to decision making during the COVID-19 pandemic. *J Am Acad Dermatol*. 2020; 83(2):677-679.
- Kaushik SB, Lebwohl MG. Psoriasis: which therapy for which patient: focus on special populations and chronic infections. J Am Acad Dermatol. 2019;80(1):43-53.
- 3. Yiu ZZ, Griffiths CE. Interleukin 17-A inhibition in the treatment of psoriasis. *Expert Rev Clin Immunol*. 2016;12(1):1-4.

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