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LETTERS TO THE EDITOR

Comment on *"Real-world efficacy and retention of guselkumab in psoriatic arthritis: a 12-month multicenter study"*

Bakay U[1]

Dear Editor,

We read with considerable interest the recent 12-month real-world study evaluating guselkumab in psoriatic arthritis (PsA). The multicenter design, broad musculoskeletal assessment, and reported treatment retention rate of 79 percent contribute meaningfully to the growing evidence base[1]. Our intention is to provide several methodological considerations that may help refine interpretation and strengthen future real-world analyses[2].

1) Completers-only analysis and intention-to-treat principles

The change analyses were limited to patients who remained on therapy for 12 months. Although informative, this type of analysis is prone to survivorship bias. Presenting intention-to-treat compatible trajectories, for example by applying mixed-effects models for longitudinal data or by using multiple imputation for missing outcomes, would provide a more accurate representation of the treatment course for all initiators. These approaches are consistent with STROBE recommendations for observational cohort research[3].

2) Paired-data statistical testing

The comparison of baseline and month-12 values was performed using the Mann Whitney test. Because these values were obtained from the same individuals at two time points, paired statistical tests such as the Wilcoxon signed rank test or the paired t test where assumptions allow would be more appropriate.

Paired analyses account for within-patient correlation and produce more reliable statistical inference. Reporting effect sizes together with confidence intervals would further strengthen the validity of the results[3].

3) Cox regression and events per variable

Only fifteen discontinuation events were recorded during the 12-month observation period, yet several covariates were included in the Cox model. With such a limited number of events, model estimates may be unstable and overfitted.

A more parsimonious model or the use of penalized regression techniques would be advisable in order to increase robustness, as highlighted in simulation studies evaluating events-per-variable requirements[4].

4) Interpretation of axial outcomes, ASDAS meaning, ASAS criteria, and imaging limitations

Axial improvement was inferred primarily from the reduction in ASDAS. It should be noted that ASDAS reflects overall inflammatory activity because it incorporates global pain, stiffness, and C-reactive protein. This means that a decrease in ASDAS may not exclusively represent improvement in axial inflammation.

To align interpretation with the outcomes actually reported in the original study, we focused exclusively on ASDAS changes, acknowledging that this composite index reflects general inflammatory burden rather than isolated axial improvement.

The reviewers correctly pointed out the lack of systematic imaging. Obtaining standardized MRI data in retrospective real-world studies is inherently difficult, and this limitation deserves explicit acknowledgement.

To improve axial outcome interpretation in future studies, reporting the proportion of patients who achieve ASDAS inactive disease or major improvement among those with imaging-confirmed axial involvement, or conducting a sensitivity analysis restricted to MRI-positive cases, would help clarify whether guselkumab exerts a true axial effect. These refinements would facilitate alignment with existing retrospective datasets[5].

5) Safety and discontinuation reporting

All treatment discontinuations were attributed to inefficacy. While the absence of adverse event (AE)-related discontinuations is reassuring, clarifying the method of AE ascertainment (e.g., active vs. passive surveillance) would provide valuable context, given that real-world biologic registries typically report AE-related discontinuation rates of 5–20%[6].

This additional context would help readers interpret

1. Department of Rheumatology, Denizli State Hospital, Denizli, Türkiye

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Correspondence to: Umut Bakay
E-mail: ubakay280220@gmail.com

the safety findings more accurately[6].

In conclusion, this multicenter study provides important real-world evidence supporting the use of guselkumab in PsA. Applying intention-to-treat compatible analyses, using paired statistical tests, adopting more parsimonious modeling strategies, refining axial outcome interpretation, and providing clearer safety context would further strengthen the methodological rigor and enhance comparability across future real-world cohorts.

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