

Letter: COVID-19 outcomes and anti-TNF treatments—comprehensive evidence matters

Dear Editors,

We read with great interest the article “Systematic review with meta-analysis: COVID-19 outcomes in patients receiving anti-TNF treatments” by Kokkotis et al.¹ The authors conducted a systematic review and meta-analysis to evaluate COVID-19 outcomes in patients receiving anti-TNF treatments. While acknowledging these results, we would also like to highlight several methodological issues and provide our perspective.

First, was the systematic review registered before being conducted, as no registration information was provided? Registration of systematic reviews is important to improve transparency and avoid potential bias, including selection bias and selective reporting bias, and to confirm the reproducibility of the study.²

Second, the search strategy should be more comprehensive. The authors only searched PubMed and SCOPUS, and we suggest that additional databases such as Embase, Web of Science, or The Cochrane Library could be used to search for additional literature, which would make the results more convincing. In addition, we were surprised that search keywords used the abbreviation “anti-TNF” instead of “tumor necrosis factor inhibitors” or the MeSH term. Many relevant articles will have been missed.

Third, the authors only used funnel plots to detect publication bias. However, the funnel plot is not a quantitative analysis and its interpretation is not precise. We suggest using Egger’s regression test³ or the Begg and Mazumdar rank correlation test⁴ to detect publication bias.

Fourth, there are residual confounders that should be considered, such as different diseases and different types of drugs. We suggest that the authors perform subgroup analysis for disease type and drug type (monoclonal antibodies or receptor antagonists). In addition, many of the studies were conducted during the peak of the epidemic in 2020, which may have resulted in the underestimation of hospitalizations due to the shortage of medical resources.⁵ Moreover, some patients may not have been able to access healthcare.

We respectfully thank Kokkotis et al. for providing us with a valuable meta-analysis. Nevertheless, the authors should adopt a more comprehensive search strategy and appropriate methodology to avoid inaccurate results.

ACKNOWLEDGEMENT

Declaration of personal interest: None.

Declaration of funding interest: None.

CONFLICT OF INTEREST

The authors have declared no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

LINKED CONTENT

This article is linked to Kokkotis et al papers. To view these articles, visit <https://doi.org/10.1111/apt.16717> and <https://doi.org/10.1111/apt.16904>

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