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Letter to the Editor

Re: Early administration of tocilizumab in hospitalized COVID-19 patients with elevated inflammatory markers; COVIDSTORM

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To the Editor,

We have read with great interest the study conducted by Broman et al. [1] entitled 'Early administration of tocilizumab in hospitalized COVID-19 patients with elevated inflammatory markers; COVIDSTORM-a prospective, randomized, single-centre, open-label study.'

In this randomised clinical trial (RCT), tocilizumab (TCZ) reduces the length of hospital stay in patients with COVID-19 and hypoxemia [1]. Clinical inclusion criteria in the COVIDSTORM were was peripheral oxygen saturation \leq 93% on ambient air or respiratory rate >30/min; concerning oxygen support at randomisation, we only have the details about the number of patients at low-flow (\leq 15 L/min) or high-flow oxygen (>15 L/min) [1]. Most of the patients had low-flow oxygen support (\leq 15 L/min). Finding the optimal group of patients who are susceptible to have the greatest benefit of TCZ use with an oxygen support \leq 15 L/min still remains a challenge, and subgroup analyses are needed [2].

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Tleyjeh et al., in the first update of their living systematic review and meta-analysis, emphasise also the need that all RCT teams urgently contribute their trials data for a meta-analysis that would incorporate subgroup analyses, and that they explore any heterogeneous treatment effects of TCZ [3].

However, in COVIDSTORM there is no information about oxygen requirement at baseline of the main population (67% of patients in TCZ arm needed an oxygen flow \leq 15 L/min). On the one hand, we sincerely congratulate COVIDSTORM's team for the value of this study, but on the other hand, we would ask for an additional effort to give more details about this study (for example, mean of oxygen support at baseline, number of patients \geq 6 L/min and <6 L/min with subgroup analyses).

We rejoin Tleyjeh et al. that all RCT teams may contribute their clinical data for a meta-analysis that would incorporate subgroup analyses [3], this to not worsen the "tocilizumab story" [4].

Transparency declaration

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Author contributions

TK drafted the manuscript. VG and SZ revised the manuscript.

References

- [1] Broman N, Feuth T, Vuorinen T, Valtonen M, Hohenthal U, Löyttyniemi E, et al. Early administration of tocilizumab in hospitalized COVID-19 patients with elevated inflammatory markers; COVIDSTORM-a prospective, randomized, single-centre, open-label study. Clin Microbiol Infect 2022;28: 844–51.
- [2] Klopfenstein T, Gendrin V, Gerazime A, Conrozier T, Balblanc JC, Royer PY, et al. Systematic review and subgroup meta-analysis of randomized trials to determine tocilizumab's place in COVID-19 pneumonia. Infect Dis Ther 2021;10: 1195–213.
- [3] Tleyjeh IM, Kashour Z, Riaz M, Hassett L, Veiga VC, Kashour T. Efficacy and safety of tocilizumab in COVID-19 patients: a living systematic review and meta-analysis, first update. Clin Microbiol Infect 2021;27:1076–82.
- [4] Cozzi-Lepri A, Smith C, Mussini C. Signals were broadly positive for months, but never definitive: the tocilizumab story. Clin Microbiol Infect 2022;28: 371–4.

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