

Correspondence on 'Historically controlled comparison of glucocorticoids with or without tocilizumab versus supportive care only in patients with COVID-19-associated cytokine storm syndrome: results of the CHIC study'

I was surprised when I read your web page promoting the study 'Historically controlled comparison of glucocorticoids with or without tocilizumab versus supportive care only in patients with COVID-19-associated cytokine storm syndrome: results of the CHIC study'.¹ The methodology of this study (comparison of a treatment with a historical control) is known to lead to major biases. The results were positive, consistent with another study using the same methodology.² Although the authors acknowledged the risk of bias related to this design, such studies lead to many press releases, mass communication and (false) hope for both doctors and patients despite their low level of evidence. Finally, when randomised controlled trials evaluating the interest of using tocilizumab in COVID-19 failed to demonstrate a benefit,³⁻⁵ this resulted in huge deception and loss of confidence in the academic research among the population. As a clinician and researcher, I expect researchers but also editors of leading medical journals to promote studies able to provide a high level of evidence.⁶ This hard time of the SARS-CoV-2 pandemic should remind us to make clinical research with the strongest possible methodology and a rigorous analysis to prevent misleading results and false hope.

Pierre Charles 

Correspondence to Dr Pierre Charles, Internal Medicine, Institut Mutualiste Montsouris, Paris, France; pierre.charles@imm.fr

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

This article is made freely available for use in accordance with BMJ's website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may use, download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

© Author(s) (or their employer(s)) 2021. No commercial re-use. See rights and permissions. Published by BMJ.



To cite Charles P. *Ann Rheum Dis* Epub ahead of print: [please include Day Month Year]. doi:10.1136/annrheumdis-2021-219986

Received 25 January 2021
Accepted 26 January 2021



► <http://dx.doi.org/10.1136/annrheumdis-2021-220001>

Ann Rheum Dis 2021;0:1. doi:10.1136/annrheumdis-2021-219986

ORCID iD

Pierre Charles <http://orcid.org/0000-0001-7134-8977>

REFERENCES

- Ramiro S, Mostard RLM, Magro-Checa C, *et al*. Historically controlled comparison of glucocorticoids with or without tocilizumab versus supportive care only in patients with COVID-19-associated cytokine storm syndrome: results of the chiC study. *Ann Rheum Dis* 2020;79:1143–51.
- Roumier M, Paule R, Vallée A, *et al*. Tocilizumab for severe worsening COVID-19 pneumonia: a propensity score analysis. *J Clin Immunol* 2020. doi:10.1007/s10875-020-00911-6. [Epub ahead of print: 14 Nov 2020].
- Stone JH, Frigault MJ, Serling-Boyd NJ, *et al*. Efficacy of tocilizumab in patients hospitalized with Covid-19. *N Engl J Med* 2020;383:2333–44.
- Veiga VC, Prats JAGG, Farias DLC, *et al*. Effect of tocilizumab on clinical outcomes at 15 days in patients with severe or critical coronavirus disease 2019: randomised controlled trial. *BMJ* 2021;372:n84.
- Salvarani C, Dolci G, Massari M, *et al*. Effect of tocilizumab vs standard care on clinical worsening in patients hospitalized with COVID-19 pneumonia: a randomized clinical trial. *JAMA Intern Med* 2021;181:24–31.
- Altman DG. The scandal of poor medical research. *BMJ* 1994;308:283–4.