

Author's reply. "Immunogenicity, effectiveness and safety of COVID-19 vaccine in older adults living in nursing homes: Comment"



Respuesta de los autores: «Inmunogenicidad, efectividad y seguridad de la vacuna COVID-19 en adultos mayores que viven en hogares geriátricos: comentario»

Dear Editor,

We have carefully read the reply by Kleebayoon A. et al. and their comments about our work on immunization against Covid 19 in elderly population. The temporality of this and the amount of scientific information in recent years means that any study in real life is qualified in a very short period of time by new evidence. Having said this, and according to the recent literature today nobody doubts about the safety or efficacy of the available vaccines against Covid 19, since it has been validated in numerous settings, including the elderly population.¹

Kleebayoon A. et al. focus on paucisymptomatic or silent patients with Covid 19. At the time of the covid-19 infection boom, some people might have no symptoms at all, but could still infect others (asymptomatic transmission). In addition, there was a consensus regarding the involvement of these people, in terms of epidemiological risk, in the silent transmission of the new coronaviruses to other people and the subclinical spread of the disease in the apparently healthy population. Asymptomatic patients never knew they had the infection. Therefore, their ability to infect others always depended on their behavior to comply with preventive actions.

On the other hand, it is worthy highlight that immunization does not have the objective of reducing contagion (neither paucisymptomatic covid-19 or silent covid-19) it rather seeks, and data confirm, that vaccines contributed to reduce the risk of severe illness from Covid 19, hospitalization and death.² Thanks to vaccines, we have witnessed a drastic change of scenery in the last year, both in nursing homes and in hospitals, with a great impact on reduction of morbidity and mortality from Covid 19. This allowed, not only to preserve lives, but also generating savings in health systems, allowing people and countries to return to normal life.

In our study, as in others conducted in nursing home residents, a history of SARS-CoV-2 infection before vaccination was the strongest predictor of the antibody titer response.³ Furthermore, prior SARS-CoV-2 infection may enhance the vaccine response rate and this response may differ from the results observed in clinical trials conducted before the infection became prevalent in the population.

Lastly, although more severe courses of disease from Covid 19 associated with age, male gender and the presence of certain

comorbidities are well documented, we agree with Kleebayoon A. et al. that more studies are needed that provide evidence about the intrinsic characteristics of the virus, as well as host genetic factors.⁴ This research would help to better explain the heterogeneity of the virus.

Bibliografía

1. Moreira ED Jr, Kitchin N, Xu X, Dychter SS, Lockhart S, Gurtman A, et al. Safety and efficacy of a third dose of BNT162b2 Covid-19 vaccine. *N Engl J Med*. 2022;386:1910–21. <http://dx.doi.org/10.1056/NEJMoa2200674>. Epub 2022 Mar 23. PMID: 35320659; PMCID: PMC9006787.
2. Lopez Bernal J, Andrews N, Gower C, Robertson C, Stowe J, Tessier E, et al. Effectiveness of the Pfizer-BioNTech and Oxford-AstraZeneca vaccines on covid-19 related symptoms, hospital admissions, and mortality in older adults in England: test negative case–control study. *BMJ*. 2021;373:n1088.
3. Dyer AH, Noonan C, McElheron M, Batten I, Reddy C, Connolly E, et al. Previous SARS-CoV-2 infection, age, and frailty are associated with 6-month vaccine induced anti-spike antibody titer in nursing home residents. *J Am Med Direct Assoc*. 2022;23:434–9.
4. Anastassopoulou C, Gkizarioti Z, Patrinos GP, Tsakris A. Human genetic factors associated with susceptibility to SARS-CoV-2 infection and COVID-19 disease severity. *Hum Genomics*. 2020;14:40. <http://dx.doi.org/10.1186/s40246-020-00290-4>. PMID: 33092637; PMCID: PMC7578581.

Héctor Meijide Míguez^a, Iñaki Montes García^b,
Miguel Ochando Gómez^c, Isabel M. García Merino^d,
Emilio L. Cano^{e,f}, Alejandro De La Torre^{g,*}

^a Department of Internal Medicine, Hospital Quironsalud A Coruña, A Coruña, Spain

^b Executive Director, Residencia Dulcinea, Grupo Quirónsalud, Alcázar de San Juan, Ciudad. Real, Spain

^c Technical Director of Clinical Laboratory, Health Diagnostic, Grupo Quironsalud, Madrid, Spain

^d Department of Research and Innovation, Grupo Quirónsalud, Madrid, Spain

^e Research Centre for Intelligent Information Technologies (CETINIA-DSLAB), Rey Juan Carlos University, Móstoles, Spain

^f Quantitative Methods and Socio-economic Development Group, Institute for Regional Development (IDR), University of Castilla-La Mancha (UCLM), Albacete, Spain

^g Scientific Director, Clínica Imbanaco, Grupo Quironsalud, Cali, Valle del Cauca, Colombia

* Corresponding author.

E-mail address: alejandro.delatorre@imbanaco.com.co (A. De La Torre).

<https://doi.org/10.1016/j.regg.2023.04.003>

0211-139X/ © 2023 SEGG. Published by Elsevier España, S.L.U. All rights reserved.