Review of: "SARS-CoV-2 Infection and Blood Group Associations in the United Arab Emirates"

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Potential competing interests: No potential competing interests to declare.

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- The present study is based on a comparatively small number of patients, that too of blood groups not equitable in a locality and without giving any concern to the people of different blood groups who have not contracted the disease. Probably, the authors considered an equal distribution of blood groups in the target population, which is highly improbable. They are claiming a higher susceptibility to COVID-19 among individuals with blood group B, and no significant association between blood group B and disease severity or mortality. Additionally, the rhesus type was not found to be involved in susceptibility to the disease or its severity. The observations are in contrast to earlier population-based studies. It seems that the authors have purposefully ignored the studies not supporting their views and included only those supporting their observations. The study is undoubtedly biased because of an erroneous sampling plan, leading to misleading analysis and conclusions. If the authors had considered the ABO blood group distribution in the United Arab Emirates (Abdelmonem et al., 2023), they must not have analysed it in this way. **Please see the following studies:**
- A study by Abdelmonem and coworkers () revealed that type O is the most prevalent blood group in the United Arab Emirates (43.83%), followed by A at 26.68% and B at 23.90%, with AB having the lowest prevalence at 5.58%;

Abdelmonem M, Altayyari K, Wasim H, Saleh Abdelfattah M. Prevalence and Distribution of ABO and Rh (D) Factor among Blood Donors in the United Arab Emirates. Am J Clin Pathol 2023;160: S1-S143 S107 DOI: 10.1093/ajcp/aqad150

- Singh (2022) reported that among ABO blood groups, people with blood group A seem to be the most susceptible to COVID-19, followed by AB, O, and B blood group. The Rh factor appears to be an important risk factor, irrespective of ABO blood groups; nations having a higher Rh -ve population had increased susceptibility to SARS-CoV-2 infection and mortality associated with COVID-19.

Singh BR. Different Social Factors and Modulators of Covid-19 Morbidity and Mortality",InternationalJournalof Social Sciences & Economic Environment, Vol. 7, Issue 1, 2022, pp 09–18. DOI: 10.53882/IJSSEE.2022.0701002

- Ray and coworkers (2020) reported that blood group O may be associated with a lower risk of SARS-CoV-2 infection and that blood group A may be associated with a higher risk of SARS-CoV-2 infection, along with the severe disease outcome.

Ray JG, Schull MJ, Vermuelen MJ, Park A. (2020), “Association between ABO and Rh blood groups and SARS-CoV-2 infection or severe COVID-19 illness”, Annals of Internal Medicine. (2020). DOI: https://doi.org/10.7326/M20-4511