

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.

Dear Committee,

I am writing to provide my review of the research article titled "SARS-CoV-2 Infection and Blood Group Associations in the United Arab Emirates," authored by Adnane Guella et al. This study investigates the potential association between ABO blood groups and susceptibility to COVID-19, as well as the severity of the disease, within a specific population in the UAE.

Summary of Findings

The authors conducted a retrospective analysis involving **308 COVID-19-positive patients** from two medical facilities. The study aimed to determine if certain blood groups were more susceptible to infection and whether these groups correlated with disease severity. The key findings include:

- Blood Group Susceptibility:** The study found that individuals with blood group B had a higher susceptibility to COVID-19, with an odds ratio of **2.19** compared to other blood types.
- Disease Severity:** No significant association was found between blood groups and the severity or mortality rates of COVID-19.
- Demographics and Other Factors:** The cohort had a mean age of **52.5 years**, with a notable prevalence of type 2 diabetes mellitus among participants.

Strengths

- Relevance:** This research addresses an important question regarding the relationship between blood types and COVID-19, contributing valuable data from a region where such studies are limited.
- Methodology:** The use of a retrospective design with a clear comparison to blood donor data strengthens the findings. Statistical analyses were appropriately applied to assess associations.

Areas for Improvement

- **Sample Size and Diversity:** While 308 patients provide a substantial dataset, expanding the sample size or including additional demographics could enhance the generalizability of the findings.
- **Discussion of Mechanisms:** The authors could benefit from elaborating on potential biological mechanisms that might explain why blood group B is associated with increased susceptibility.
- **Literature Comparison:** A more comprehensive comparison with existing literature, particularly studies that report conflicting results, would strengthen the discussion section.

Conclusion

Overall, this article presents significant findings regarding the association between ABO blood groups and COVID-19 susceptibility in the UAE population. The conclusions drawn are supported by the data presented, although further research is warranted to explore underlying mechanisms and broader implications for public health. Thank you for considering my review. I look forward to seeing this important work published.

Sincerely,