



## Letter to the Editor

**Infection and thrombosis associated with COVID-19: Possible role of the ABO blood group**

**Infección y trombosis asociada a la COVID-19: posible papel del grupo sanguíneo ABO**

Dear Editor:

We read with great interest the article by Dr. Saioa Zalba Marcos and colleagues (Volume 155, Issue 8).<sup>1</sup> We would like to thank and congratulate the authors of this study on the important emerging evidence they provide. In the current situation of the health crisis, any step forward is a great step forward. And this is exactly what the study by Saioa Zalba Marcos and colleagues add. However, the result needs to be interpreted with caution.

In their article, the authors have stated that there is lower susceptibility to SARS-CoV-2 infection in group O (although the difference between Group O patients and the global population was not statistically significant). Several very similar articles related to the relationship between the ABO blood group and the COVID-19 susceptibility have been published in the early days of the pandemic.<sup>2</sup> With the results indicating a higher rate of infection among type A and lower among type O subjects. These hypotheses are reinforced by a study employing genome-wide association, which identified a region on chromosome 9 corresponding to the ABO locus, with frequency misbalance between severe COVID-19 patients and healthy blood donors from Italy and Spain.<sup>3</sup>

However, a recent study suggested that the ABO blood group types do not seem to significantly impact the risk of SARS-CoV-2 infection.<sup>4</sup> To our knowledge, this is by far the biggest and most complete study about the association between risk of SARS-CoV-2 infection and ABO blood groups that's been done. Furthermore, another US study also failed to reveal a relationship between ABO blood type and susceptibility to SARS-CoV-2 infection.<sup>5</sup> Both studies point out that ethnicity may have biased previous analysis.

Thus, considering the study led by Dr. Saioa Zalba Marcos and colleagues are small so inferential caution is warranted. Time lag

bias may partly have affected the findings of previous studies, and more concerns are warranted. And we fully agree with the authors that further large and sufficiently powered studies including different ethnicities, preferably from several countries are needed.

**Conflict of interest**

We declare no competing interests.

**Funding**

None.

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Jianghui Cai<sup>a,\*</sup>, Hongxi Zhang<sup>a</sup>, Mi Tang<sup>b</sup>

<sup>a</sup> Chengdu Women's and Children's Central Hospital, School of Medicine, University of Electronic Science and Technology of China, Chengdu City 610041, China

<sup>b</sup> Office of Good Clinical Practice, Chengdu Women's and Children's Central Hospital, School of Medicine, University of Electronic Science and Technology of China, Chengdu 610041, China

\* Corresponding author.

E-mail address: 776773221@qq.com (J. Cai).