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The Relationship Between Blood Groups and COVID-19 patients

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Dear Editor,

We have read with great interest the publication entitled “The Relationship between Blood Groups and patients with COVID-19 (1).” In the study, the author points out that the frequencies of blood groups in patients with COVID-19 and recommends that “people with blood type A behave more sensitively in terms of following the protection measures.” In this study, there is not a control group that represents the population. The blood group variable is compared within the patient group. The author cited Cekdemir’s study (2) for reference, but no statistical comparison was made between the two studies. Moreover, we see that the distribution of blood groups are varied within the regions in Turkey (2). Without a proper control group, evaluating the blood groups cannot give us a view or risk ratio for the entire population. We know there are some studies from different countries regarding the ABO blood groups and COVID-19. A recent meta-analysis suggests that blood type A may be more susceptible to infect COVID-19, while blood type O may be less susceptible to infect COVID-19 (3). A recent study from Turkey (4) that has an own reference group which is compared statistically also shows similar results. On the other hand, Dzik et al. (5) pointed that selecting a proper control group is crucial for these studies. Simple blood bank donors may not be a suitable reference group because blood donors are known to be selected in favor of blood group O persons who preferred as donors. ABO blood group also varies by ethnicity, and this may influence the observed ABO distribution when comparing patients versus uninfected group. Without a proper reference population comparison within this framework, this study cannot directly show a risk towards a specific blood group in COVID-19. Additionally, the author concluded that “a statistically significant difference was found concerning the symptom of cough according to the blood groups of the patients.” However, in the last paragraph, the author concluded that “there was no difference between the symptom states according to blood groups.” If there were a difference, it would be better to show in which groups.

Peer-review: Externally peer-reviewed.**Author Contributions:** Concept – BŞÇ, DA; Design – BŞÇ; Supervision – DA; Resource – BŞÇ; Materials – BŞÇ; Data Collection and/or Processing – BŞÇ; Analysis and/or Interpretation – BŞÇ; Literature Search – BŞÇ, DA; Writing – BŞÇ, DA; Critical Reviews – DA.**Conflict of Interest:** The authors have no conflict of interest to declare.**Financial Disclosure:** The authors declared that this study has received no financial support.

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