In Response to *Smell and Taste Loss in COVID-19 After Complete Vaccination: Correspondence*

Dear Editor:

We really appreciate the interest shown in our communication[1] by Mungmunpuntipantip and Wiwanitkit.[2] We agree with colleagues that the antibody response to vaccination may be an important factor in determining the predisposition to develop a symptomatic form of coronavirus disease 2019 (COVID-19) following severe acute respiratory syndrome 2 (SARS-CoV-2) infection. Unfortunately, in our series, data on serum immunoglobulin levels could not be obtained and future studies investigating these aspects will be needed. With regard to the relationship between serum immunoglobulins and the severity of chemosensitive disorders (CD), it must be emphasized that no significant correlations have been found so far.[3,4] Conversely, there appears to be a correlation with nasal and salivary immunoglobulin levels to testify to the role of local immunity in determining the presence and severity of CD in COVID-19 patients.[3,5] Interestingly, systemic and local anti-SARS-CoV-2 immunoglobulin levels appear to be inversely proportional[6] and this could be why CD is common also in vaccinated subjects. This is not so surprising, as CD has been a frequent finding in SARS-CoV-2 reinfections.[7,8]

Regarding the possibility that vaccination can induce CD, there are actually some reports in the literature,[9] as well as some cases of improvement in olfactory scores in subjects with persistent CD after COVID-19, who received vaccination have been reported.[10] However, we do not think this could have influenced the results of our survey as the presence of previous CD, even if related to vaccination, represented an exclusion criterion. Similarly, we believe it is unlikely that the clinical pictures of the subjects in our series, who all had a confirmed diagnosis of SARS-CoV-2 infection, were affected by any concurrent and undiagnosed infection with other pathogens.

Finally, we agree with colleagues that it will be necessary to evaluate the diagnostic power of CD in children who have received the vaccine. At the time of the survey, the pediatric population had not yet received the vaccine in Europe and it was not possible to include these subjects.

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