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Title: Incidence of SARS-CoV-2 Infection in Asthma Patients on Omalizumab Therapy

Running Title: SARS-CoV-2 Infection in Asthma Cases on Omalizumab

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Dear Editor,

We read the article titled ‘COVID-19: Infection Control and Treatment Strategy in Pediatric Age Group in Turkey’ by Tezer et al. with great interest (1). We also want to share/discuss our clinical observations on infection control and incidence of Covid-19 in asthma cases receiving omalizumab as treatment strategy.

In our clinic, omalizumab treatment is given to a total of 10 patients with the diagnosis of asthma. The mean age of our patients who received omalizumab for asthma was 16.5 years. Of our asthma patients, 6 (60%) were male and 4 (40%) were female. A 20-year-old female patient who received omalizumab with the diagnosis of moderate-severe asthma was found to have PCR test positivity for SARS-CoV-2, and this patient had the Covid-19 infection at home with mild symptoms without using medication.

1/10 (10%) of our patients who received omalizumab treatment had Covid-19 infection at home with mild symptoms. We think that omalizumab use is not a treatment that will cause solely comorbidity in the course of the Covid-19 pandemic. We continue to apply omalizumab treatment to our patients without causing any concerns. We totally agree with the literature that our results indicate that cases receiving omalizumab for asthma are at no greater risk of contracting SARS-CoV-2 infection than the common population and give further support for the safety of omalizumab utilization during the COVID-19 pandemic (2).

Even if they contracted the disease, the course of COVID-19 disease in our case seemed not to be different than the general population. In terms of COVID-19 course in these diseases while on omalizumab, data continue to increase every day (3). However; we should know to pay more attention to the severe cases of COVID-19, when they are on omalizumab, as advised (4).

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One more thing is that there are not enough data exists on how this biologic/omalizumab impacts transmission of viral infections such as SARS-CoV-2. Gill et al demonstrated that omalizumab repaired type I interferon reactions by decreasing IgE receptors in dendritic cells to airway viruses such as rhinovirus and influenza. Even they think that this causes a strong antiviral immune reaction to prevent SARS-CoV-2 replication and limit the spread of SARS-CoV-2 infection (5).

In conclusion, incidence of SARS-CoV-2 infection in asthma patients on omalizumab therapy is not higher than general population as well as the effect of omalizumab as treatment strategy on the course of COVID-19 seems to be favorable.

References

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