



# Ongoing Allergic Manifestations Due to Long COVID in Siblings

İki Kardeşte Uzun Süren COVID'e Bağlı Görülen Uzun Süreli Alerjik Belirtiler

Yasemin Ardıçoğlu Akışın<sup>1</sup>(iD), Elif Güney<sup>2</sup>(iD), Zafer Arslan<sup>2</sup>(iD), Nejat Akar<sup>2</sup>(iD)

<sup>1</sup> Department of Medical Biochemistry, TOBB Economy and Technology University Faculty of Medicine, Ankara, Turkey

<sup>2</sup> Department of Pediatrics, TOBB Economy and Technology University Faculty of Medicine, Ankara, Turkey

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To the Editor,

A four-year-old boy was brought to the TOBB ETÜ Faculty of Medicine Department of Pediatrics with the complaints of persistent urticaria for the last two months. He has a history of fever three months ago, followed by a cough and runny nose that lasted for 1-2 months. When examined in terms of chronic urticaria, no pathological findings and results were found except the Anti-SARS-CoV-2 antibody (Anti-SARS-CoV-2 Spike Antibody, Roche Diagnostic, Mannheim, Germany) which was tested to confirm the retrospective suspicion of COVID and the result was found >250 IU/mL. SARS-CoV-2 polimerase chain reaction (PCR) (KrosQuant SARS-COV-2 real time PCR Tanı Kiti KrosGen Biyoteknoloji, İstanbul, Turkey) was also found positive.

At the same time, it was observed that since nine months of age, his 13-month-old sister had a dry cough, nasal discharge and congestion, which increased especially at night and with effort. Also, wheezing was present for the last two months. Chest X-ray, total blood count, C-reactive protein and total Immunglobulin E levels were found normal. No evidence of atopy in siblings or history of atopic disease in the first degree relatives were detected. When the Anti-SARS-CoV-2 antibody was tested like his brother, the result was found >250 IU/mL. These results were thought to be due to passed symptoms of COVID. Both of the PCR results from given the parents at the same time were found negative.

A recent study on prolonged symptoms (Long COVID) including runny nose, nasal congestion, cough and skin rash in 129 children pointed that at least one symptom could persist even after 60 days in children who had COVID (1). This is the first case where chronic urticaria lasting longer than three months has been reported.

It is known that viral infections like respiratory syncytial virus and rhinovirus are major triggers of wheezing attacks (2). It may also be speculated that acute COVID-19 infection without persistence may trigger bronchial or mast cell hyper-reactivity in children with genetic predisposition.

As stated by Zang et al. the continuing PCR positivity in both siblings may be the result of the persistence of ineffective RNA particles of the virus (3). Besides increased immune activity due to this ongoing antigenic stimulus of SARS-CoV-2 rather than disease itself may lead to continuation of the symptoms. The family was quarantined by the Turkish Ministry of Health after positive results were received. However, our analysis showed no active risk of acute COVID infection. Therefore, we think that the follow-up period for patients that still get tested PCR positive even after an elongated acute COVID infection should be reevaluated as recommended by some other researchers (4).

## Correspondence Address/Yazışma Adresi

Yasemin Ardıçoğlu Akışın

TOBB Ekonomi ve Teknoloji Üniversitesi Tıp Fakültesi,  
Tıbbi Biyokimya Anabilim Dalı,  
Ankara-Türkiye

E-mail: yardicoglu@gmail.com

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