

## Distal microvascular disease as a manifestation of COVID-19 in a young patient

Emre Özker<sup>1</sup> , Aysu Özge Yönetçi<sup>2</sup> , Sesin Kocagöz<sup>3</sup> 

<sup>1</sup>Department of Wound Care, Altunizade Acıbadem Hospital, Istanbul, Turkey

<sup>2</sup>Department of Pediatrics, Acıbadem Mehmet Ali Aydınlar University, Istanbul, Turkey

<sup>3</sup>Department of Infectious Diseases and Clinical Microbiology, Acıbadem Mehmet Ali Aydınlar University, Istanbul, Turkey

A 22-year-old male patient was admitted to the emergency unit with high fever. His medical history revealed autism. The patient was suspected to be infected with the novel coronavirus 2019 (COVID-19). Thoracic computed tomography revealed bilateral viral pneumonia. The patient was hospitalized and put on COVID-19 treatment. Polymerase chain reaction and blood tests were positive for COVID-19. Due to deteriorating respiratory functions, he was intubated the following day. Broad-spectrum antibiotics, hydroxychloroquine, favipiravir, and enoxaparin 4,000 IU b.i.d. (with a body weight of 50 kg) was initiated at the time of intensive care unit (ICU) admission and continued until the patient was transferred to the infectious diseases ward.

On Day 4 in the ICU, tocilizumab was added to the treatment and repeated three days later. The patient was extubated on Day 18 of hospital admission. On Day 25, necrotic bullae were observed on the tip of the toes (Figure 1). The pedal pulses were palpable, and triphasic waveform was present in hand Doppler. However, CT angiography of the lower extremity was performed at the time of control thoracic CT examination. The angiography findings were normal for the peripheral arterial system (Figure 2). We were unable to detect any predisposing factor for the distal toe necrosis, hence, related this clinical presentation to the COVID-19-related microangiopathy in young adults and children which was first reported in China<sup>[1]</sup> and later in Italy.<sup>[2]</sup>



**Figure 1.** An image showing toe tip with new-onset and healed hemorrhagic bullae.

Received: March 30, 2020 Accepted: May 06, 2020 Published online: July 16, 2020

**Correspondence:** Emre Özker, MD. Altunizade Acıbadem Hastanesi, Yara Bakım Bölümü, 34662 Üsküdar, İstanbul, Türkiye.  
e-mail: dremreozker@yahoo.com

### Citation:

Özker E, Özge Yönetçi A, Kocagöz S. Distal microvascular disease as a manifestation of COVID-19 in a young patient. Turk J Vasc Surg 2020;29(x):222-223



**Figure 2.** A computed tomography angiography image of lower extremity.

### **Declaration of conflicting interests**

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

### **Funding**

The authors received no financial support for the research and/or authorship of this article.

### **REFERENCES**

1. Zhang Y, Cao W, Xiao M, Li YJ, Yang Y, Zhao J, et al. Clinical and Coagulation Characteristics of 7 Patients With Critical COVID-2019 Pneumonia and Acro-Ischemia. *Zhonghua Xue Ye Xue Za Zhi* 2020 [Online ahead of print]
2. Recalcati S. Cutaneous Manifestations in COVID-19: A First Perspective. *J Eur Acad Dermatol Venereol* 2020;34:e212-3.