

Images in Infectious Diseases

Comorbidity of Crimean-Congo Hemorrhagic Fever and COVID-19

Ayşe Albayrak^[1], Handan Alay^[1] and Sibel İba Yılmaz^[2]

[1]. Ataturk University, Faculty of Medicine, Department of Infectious Diseases and Clinical Microbiology, Erzurum, Turkey.

[2]. Republic of Turkey Ministry of Health, Erzurum City Hospital, Department of Infectious Diseases and Clinical Microbiology, Erzurum, Turkey.



FIGURE 1: (A) Subcutaneous hematoma, diffuse ecchymosis, and bullous lesions on the patient's left arm; (B) regression of the lesions after treatment.

A 61-year-old woman presented to the emergency department with fever, weakness, headache, and cough that had persisted for one week. Her pulmonary saturation was 87%, and her hemogram, biochemistry, and bleeding parameters were normal. The pulmonary tomography report described 'several areas of linear atelectasis in the basal parts of both lungs'. The patient's SARS-CoV-2 polymerase chain reaction (PCR) test was positive, and she was started on low molecular weight heparin (LMWH) 0.6 mL/day and dexamethasone 6 mg/day therapy. On the fifth day of follow-up, her WBC was $2.97 \times 10^3/\mu\text{L}$ (lymphocyte count, 510); platelets, $45 \times 10^3/\mu\text{L}$; aspartate-aminotransferase, 537 U/L; alanine aminotransferase, 341 U/L; lactate dehydrogenase, 590 U/L; ferritin, 1650 ng/mL; and

D-dimer, 35,200 ng/mL. No shortness of breath or other respiratory symptoms were observed. However, she described having removed a tick from her body approximately a week before. Hematoma, diffuse ecchymosis, and bullous lesions developed on the left arm to which the LMWH had been administered (Figure 1A). The patient's Crimean-Congo hemorrhagic fever (CCHF) PCR test results were positive. LMWH therapy was stopped, and supportive therapy was initiated for CCHF. The hematoma on the arm resolved during follow-up (Figure 1B).

CCHF is a zoonotic viral disease endemic in Turkey. While diagnosis is relatively easy in patients with a tick bite history, it can be difficult in patients without one¹. While CCHF progresses with hemorrhage, COVID-19 causes thrombosis². Similar symptoms and laboratory findings can be seen in both diseases. CCHF must be considered in regions where it is endemic during the COVID-19 pandemic.

Corresponding Author: Dr. Handan Alay.

e-mail: alayhandan@gmail.com

ORCID: <https://orcid.org/0000-0002-4406-014X>

Received 13 July 2021

Accepted 19 August 2021

AUTHORS' CONTRIBUTION

AA: Conception and design of the study, Acquisition of data, Analysis and interpretation of data, Final approval of the version to be submitted, writing; HA: Conception and design of the study, Acquisition of data, Analysis and interpretation of data, Final approval of the version to be submitted, writing; SIY: Conception and design of the study, Acquisition of data, Analysis and interpretation of data, writing.

CONFLICT OF INTEREST

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

FINANCIAL SUPPORT

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID

Ayşe Albayrak: 0000-0002-6177-4566

Handan Alay: 0000-0002-4406-014X

Sibel İba Yılmaz: 0000-0002-4123-0828

REFERENCES

1. Fillâtre P, Revest M, Tattevin P. Crimean-Congo hemorrhagic fever: an update. *Med Mal Infect.* 2019;49(8):574-85.
2. Marietta M, Ageno W, Artoni A, De Candia E, Gresele P, Marchetti M, et al. COVID-19 and haemostasis: a position paper from Italian Society on Thrombosis and Haemostasis (SISET). *Blood Transfus.* 2020; 18(3):167-9.