Turk J Gastroenterol *2014; 25: 120-1*

Crimean-Congo hemorrhagic fever presenting with gastrointestinal manifestations: Two cases

To the Editor,

Crimean-Congo hemorrhagic fever virus (CCHFV) is a viral hemorrhagic fever of the *Nairovirus* group that belongs to the *Bunyaviridae* family. Crimean-Congo hemorrhagic fever (CCHF) is a severe infectious disease with a mortality rate as high as 5%, and it is characterized by fever and bleeding. CCHF first emerged in Turkey in 2002, and the prevalence of the disease has been found to be increased (1). In fact, it is transmitted by tick bites, but people could be infected by direct contact with infected patient or animal blood and tissue. There have been reported fatal case reports about health workers who were infected from patients (2). These cases are usually different diagnosed patients rather than CCHF in other departments or in the emergency room. In this paper, we present two different case reports who applied to the emergency room with hematemesis and jaundice. After follow-up, they were diagnosed with CCHF.

CASE 1

A 22-year-old female patient applied to our emergency department with fatigue, abdominal pain, and hematemesis. She was hospitalized in the internal medicine department for follow-up and further treatment. Laboratory findings on admission were as follows: white blood cell (WBC): 3200/mm^3, hemoglobin (Hb): 10 g/dL, and platelet count (PLT): 75,000/mm^3. Infectious disease consultation was held after she had a fever attack as high as 39oC. On her second day, the PLT count was measured as 37,000/mm^3. She was in an endemic region of CCHF, and laboratory and clinical findings also supported a CCHF diagnosis. Definitive diagnosis was verified in a tertiary stage hospital to where she was referred.

CASE 2

A 79-year-old male patient applied to our emergency room with complaints of fatigue, abdominal pain, jaundice, darkening of urine color, and muscle and joint pain. Laboratory findings on admission were as follows: AST: 825 IU/mL, ALT: 450 IU/mL, total bilirubin: 7.7 mg/dL, WBC: 5400/mm^3, and PLT: 56.0000/mm^3. He was hospitalized in the internal medicine department in order to investigate the etiology of jaundice. After 3 days from his hospitalization, his general condition deteriorated; then, he was transferred to the intensive care unit. Infectious disease consultation was held after he had a fever attack, and his PLT count was found to be decreased to 19,000 mm^3. According to his anamnesis, it was determined that he had removed a tick on his neck by himself 1 week ago. Definitive diagnosis was verified in a tertiary stage hospital on further examinations to where he was referred.

The initial symptoms of CCHF are usually nonspecific, such as fever, fatigue, muscle-joint pain, headache, nausea, vomiting, and diarrhea. Skin and mucosal bleeding, epistaxis, hematemesis, melana, and urogenital tract bleeding could be seen later in the hemorrhagic period (3). Hematemesis is seen in 10%-26% of CCHF cases in Turkey, and bleeding signs are usually seen on the 5th and 7th day of the disease after patients are hospitalized (4,5). However, such as the first case in this letter, a patient's first complaint could also be hematemesis on admission to the hospital. Therefore, CCHF patients could be followed up by different clinics rather than the infectious disease department, and this causes delay in the diagnosis and treatment of the disease. Beside these problems, medical interventions that have been made by health workers without any precautions increase the risk of transmission of the disease to them. For this reason, if fever and thrombocytopenia exist in patients presenting with symptoms, such as hematemesis and melena, which are seen in gastrointestinal bleeding, a CCHF diagnosis should be kept in mind.

Adress for Correspondence: İbak Gönen, Department of Infectious Diseases, Süleyman Demirel University Faculty of Medicine, Isparta, Turkey E-mail: dribak77@hotmail.com
Received: 2.7.2012 **Accepted:** 18.8.2012
© Copyright 2014 by The Turkish Society of Gastroenterology • Available online at www.turkjgastroenterol.org • DOI: 10.5152/tjg.2014.3851

Transaminase levels are usually found to be increased in CCHF patients. Jaundice also has been observed approximately 10% of these patients (4-6). If fever and other signs of the CCHF are not prominent, such as in the second case, these patients with jaundice could apply to internal medicine and gastroenterology clinics. A CCHF diagnosis should be considered in patients presenting with increased transaminase levels and jaundice, especially in summer. Detailed questioning of the medical history and related investigations must be performed.

As a conclusion, CCHF patients could first apply to a hospital with prominent gastrointestinal system signs. A CCHF diagnosis should be kept in mind, especially as thrombocytopenia and fever accompany it in endemic regions during summer. In this way, early diagnosis of the disease and reduction of the risk of nosocomial spread could be accomplished.

Ethics Committee Approval: N/A.

Informed Consent: Written informed consent was obtained from patients who participated in this study.

Peer-review: Externally peer-reviewed.

Author contributions: Concept - İ.G., F.E.; Design -İ.G., F.E.; Supervision - İ.G.; Resource - F.E.; Materials -İ.G.; Literature Search - İ.G.; Writing - İ.G.,F.E.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

İbak Gönen[1], Fatih Ermiş[2]

[1]Department of Infectious Diseases, Süleyman Demirel University Faculty of Medicine, Isparta, Turkey

[2]Department of Gastroenterolgy, Düzce University Faculty of Medicine, Düzce, Turkey

REFERENCES

1. Gonen I. Clinical and laboratory findings of patients with crimean-congo hemorrhagic fever in the emergency department at hospital admission. J Microbiol Infect Dis 2011; 1: 1-4. [CrossRef]
2. Naderi HR, Sarvghad MR, Bojdy A, Hadizadeh MR, Sadeghi R, Sheybani F. Nosocomial outbreak of crimean-congo haemorrhagic fever. Epidemiol Infect 2011; 139: 862-6. [CrossRef]
3. Ergonul O. Crimean-Congo haemorrhagic fever. Lancet Infect Dis 2006; 6: 203-14. [CrossRef]
4. Gunaydın Sucu N, Aydın K, Yılmaz G, Çaylan R, Koksal I. Crimean-Congo hemorrhagic fever cases in the eastern Black Sea Region of Turkey: demographic, geographic, climatic, and clinical characteristics. Turk J MedSci 2010; 40: 829-34.
5. Ergonul O. Türkiyede ve Dünyada Kırım Kongo kanamalı ateşi. KLİMİK 2009; 127-37.
6. Ozkurt Z, Kiki I, Erol S, et al. Crimean-congohemorrhagic fever in eastern Turkey: clinical features, risk factors and efficacy of ribavirin therapy. J Infect2005; 52: 207-15. [CrossRef]