LETTER TO THE EDITOR

A Hantavirus Case with Confusion and Diffuse Conjunctival Haemorrhage

The Editor,

Sir,

A 19-year-old male carpenter living in a village affiliated to the district of Görele in the province of Giresun, Turkey, presented to the hospital with symptoms of fever and confusion. Cranial computed tomography and cerebrospinal fluid findings were normal. Acid-fast bacillus and herpes polymerase chain reaction cerebrospinal fluid (CSF) tests were negative, and there was no growth in CSF. No characteristic was identified at complete blood count apart from thrombocytopenia ($82 \times 10^3/\mu L$). A preliminary diagnosis of acute meningitis was made, and the patient was started on acyclovir and ceftriaxone therapy. His confusion resolved in 24 hours. Elevation was determined in urea and creatinine, but there was no growth in blood cultures. Thrombocyte values decreased to $32 \times 10^3/\mu L$ on the 3rd day. Bilateral conjunctival haemorrhage and kidney function impairment developed.

At laboratory analysis, complete blood count was white blood cells: $8300 \times 10^3/\mu L$, haemoglobin: 11.9 g/dL, thrombocyte: $142 \times 10^3/\mu L$, and sedimentation rate: 34 mm/s (0–20). Serum C-reactive protein was 4.4 mg/dL (< 0.5), procalcitonin: 0.31 µg/L (< 0.5), prothrombin time (PT): 13.2 seconds (11–15.5), activated partial thromboplastin time (aPTT): 32.8 seconds (23.6–34.8), international normalized ratio: 1.07 (0.8–1.25), blood urea nitrogen: 21 mg/dL (0–21), creatinine: 1.74 mg/dL (0.67–1.17), aspartate aminotransferase: 60 U/L (0–35), alanine aminotransferase: 24 U/L (0–45), total bilirubin: 0.6 mg/dL (0.3–1.2), lactate dehydrogenase: 561 U/L (< 248), creatine kinase: 311 U/L (20–200), myoglobin: 67.75 ng/mL (28–72), total protein: 5.8 g/dL (6.6–8.3), and albumin: 2.8 g/dL (3.5–5.2). Complete urine examination was normal. The Brucella agglutination test was negative. The microscopic agglutination test performed for leptospirosis was also negative.

Further investigation of the serum samples was done at the Virology Reference and Research Laboratory, Public Health Institute of Turkey, by IFA (Anti-hantavirus IIFT, LIFT, Germany), and the results were confirmed by immunoblot (Hantavirus Profile 1 Euroline IgM, IgG Euroimmun, Germany). The patient was diagnosed with haemorrhagic fever with renal syndrome (HFRS).

Since the Dobrava serotype carried by the yellow-necked wood mouse (Apodemus flavicollis) is able to grow in moist soil at low temperatures and levels of ultraviolet light, cases from Turkey have largely been reported from the Black Sea region. The first cases diagnosed with HFRS from the area of Giresun were reported by us in 2010, and similar case reports have followed in subsequent years (1, 2). Complications involving the eyes and central nervous system have previously been reported in some cases of HFRS (3, 4). Since confusion had entirely resolved after time of admission to our department, CSF examination was not required in this case. Computed tomography of the brain was normal. Since fever, conjunctival haemorrhage and polyuria resolved entirely at follow-up and laboratory values were normal, the patient was discharged in a healthy condition on the 10th day.

In conclusion, it should be kept in mind that hantaviruses may also lead to clouding of consciousness without intracranial haemorrhage, and those infections which develop with Dobrava virus may have more serious clinical findings compared to other subtypes.

AUTHORS' NOTE

Authors declare that there is no actual or potential conflict of interest in relation to this article.

Keywords: Confusion, Dobrava-Belgrade virus, haemorrhage.

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 DOI: 10.7727/wimj.2015.235

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