Prolonged Fever Caused by Parvovirus B19–Induced Meningitis: Case Report and Review

Parvovirus B19 is a DNA virus that causes erythema infectiosum, transient aplastic crisis in patients with hemolytic anemia, arthropathy, chronic anemia in immunosuppressed patients, and fetal hydrops [1]. Meningitis due to parvovirus B19 is a rare entity, and to our knowledge, only five cases have been reported in the literature since 1990 [2–6]. Although arthritis due to parvovirus B19 has been reported, meningitis has not been reported as a cause of fever of unknown origin [7]. We describe a case of aseptic meningitis caused by parvovirus B19 in an immunocompetent patient with prolonged fever.

A previously healthy 17-year-old female was admitted to the hospital with fever (temperature, 39.6°C), myalgia, headache, nausea, and vomiting. Physical examination revealed normal mentation, neck stiffness, and several pink macules on the trunk. Laboratory studies disclosed the following: erythrocyte sedimentation rate, 25 mm/h; C-reactive protein level, <3.4 mg/dL; and negative PPD reaction. The WBC count was 5,800/mm³ with a normal differential cell count. Biochemical and hematologic parameters were normal. MRI of the head revealed no focal abnormalities.

Analysis of CSF obtained by lumbar puncture showed a high opening pressure (440 mm of H₂O), elevated WBC count (253/mm³) with predominance of lymphocytes (95%), increased total protein level (210 mg/dL), and decreased glucose level (43 mg/dL; blood glucose level, 105 mg/dL). Acid-fast, gram, and India ink staining and culture of CSF revealed negative results. Three additional blood cultures remained negative. Serological tests for Lyme disease, brucellosis, syphilis, and infections with Epstein-Barr virus, cytomegalovirus, herpes simplex virus, mumps virus, and HIV were negative. ELISAs for IgM and IgG antibodies to parvovirus B19 in serum were positive. PCR analysis detected parvovirus B19 DNA in CSF but not in blood on the 17th day of hospitalization.

Her fever persisted for 20 days with a continuous pattern. The fever and other constitutional symptoms abated completely at the end of 1 month.

A MEDLINE search of the literature for meningitis due to parvovirus B19 showed only five cases [2–6]; the clinical and laboratory characteristics of the patients are shown in table 1. Two of six cases occurred during early adulthood, and one of these patients had sickle cell anemia; this patient died on the sixth day as a result of aplastic crisis. The present case differs from the other cases by the long duration of fever (30 days) with a continuous pattern. In addition, our case fulfills the criteria of fever of unknown origin that were defined by Petersdorf and Beeson [8]. The duration of fever is usually short (a few days to 7 days). The absence of the typical rash in adult as well as pediatric cases should be emphasized. CSF glucose levels were normal in all cases except the present case.

According to available reports, the prognosis of meningitis due...
Cardiac Cirrhosis with Cellulitis Caused by *Burkholderia cepacia* Bacteremia

*Burkholderia cepacia* is a phytopathogen that causes onion bulb rot in plants and foot rot in humans. It has emerged as an opportunistic pathogen in immunocompromised patients, particularly individuals with chronic granulomatous disease [1] and cystic fibrosis [2]. *B. cepacia* has been implicated in nosocomial outbreaks via contaminated fluid [3, 4]. Community-acquired bacteremia due to *B. cepacia* has been reported, but none of the cases were associated with cellulitis. We report a case of cardiac cirrhosis with cellulitis due to *B. cepacia* bacteremia.

A 49-year-old man presented with a 2-day history of left thigh erythematous swelling. He had no history of chronic hepatitis or cigarette smoking. He had a 13-year history of chronic lower extremity edema caused by valvular heart disease. Echocardiography showed severe tricuspid valve regurgitation and mild mitral valve regurgitation. Abdominal sonography demonstrated an uneven liver surface and hepatosplenomegaly with prominent dilatation of both the inferior vena cava and intrahepatic veins. Cardiac cirrhosis was diagnosed with a waxing and waning course of lower leg edema.

Physical examination revealed an afibrile man with a blood pressure of 140/80 mm Hg, pulse rate of 86, and respiratory rate of 20. Chest examination was unremarkable. Jugular vein pulsation was about 4 cm above the sternal angle (~9 cm H$_2$O). A pansystolic murmur with an irregular heart beat was heard. There was hepatosplenomegaly with a positive sign of shifting dullness. Hypopigmentation of both lower legs that was caused by chronic venous stasis as well as pitting edema was found. Mild left thigh erythematous swelling with no lymph node enlargement was noted.

No bullous formation was seen. There was no skin defect or tinea pedis. Laboratory studies showed a WBC count of 22,000/mm$^3$, with 92% neutrophils. Results of liver function tests showed a normal liver profile despite clinical evidence of cirrhosis. Abdominal sonography demonstrated an unenhanced liver with a prominent liver surface and hepatosplenomegaly with prominent dilatation of both the inferior vena cava and intrahepatic veins. Cardiac cirrhosis was diagnosed with a waxing and waning course of lower leg edema.

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