Purpura Fulminans in Acute Meningococcemia

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CLINICAL DESCRIPTION

A 22-year-old woman presented with a 3-day history of fever, vomiting and headache. She denied sore throat, cough, dyspnea or burning urination. On examination, her temperature was 100.5°F, her blood pressure was 95/50 mmHg and her pulse was 112 beats/min. She was acutely ill appearing and lethargic. Examination of her hands and feet are shown in Figures 1 and 2, respectively. Coagulation profiles were consistent with disseminated intravascular coagulopathy. She was treated for septic shock with normal saline, broad-spectrum antibiotics and protein C concentrate. She was intubated and required hemodynamic support with vasopressors. Over the next several days she gradually improved. Blood and cerebrospinal fluid (CSF) cultures grew *Neisseria meningitidis*.

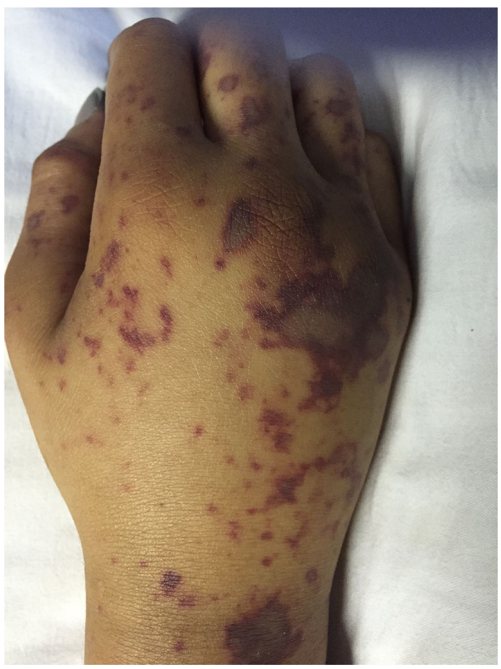

Figure 1 Photograph demonstrating irregular purpuric patches with central necrosis on patient's hand.

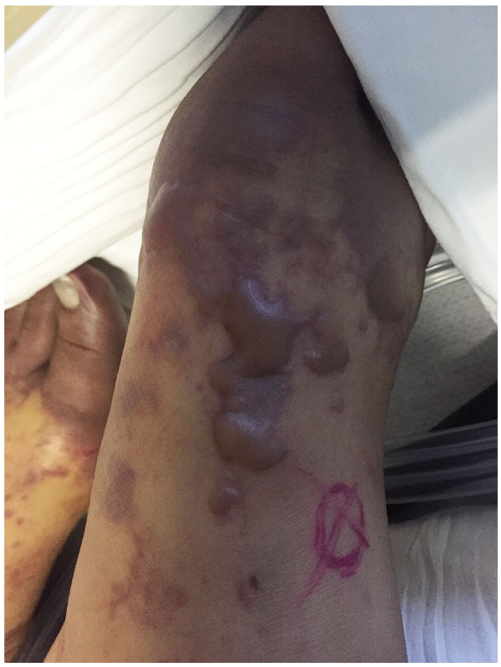

Figure 2 Photograph demonstrating purpuric patches and hemorrhagic bullae on her foot.

Purpura fulminans (PF) is a severe cutaneous complication of acute meningococcemia. It is characterized by cutaneous hemorrhage and necrosis due to vascular thrombosis of dermis and disseminated intravascular coagulopathy.[1] PF is considered an important predictor of poor outcomes following meningococcal infection.[1] Acquired severe protein C deficiency in meningococcemia is thought to play an important role in the pathogenesis of PF.[2] There are no definitive treatments for PF; however, protein C concentrate, heparin and hemodiafiltration may improve clinical outcome and mortality in patients with acute meningococcemia.[2]

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