

Peripheral symmetrical gangrene in meningitis

Sir,

Symmetrical peripheral gangrene is a rare clinical syndrome characterized by sudden onset of symmetrical distal ischemic changes, leading to gangrene of two or more sites in the absence of large vessel obstruction or vasculitis.^[1]

Here, we present a case of meningitis, which developed symmetrical peripheral gangrene.

A 67-year-old man presented with history of fever, holocranial headache, for 3 days, followed by nausea, vomiting, and altered sensorium since 1 day.

Examination revealed that he was stuporous, with tachycardia, tachypnea, normal blood pressure, and febrile. There was no focal neurological deficit; however, there were signs of meningeal irritation.

Examination of cardiovascular, respiratory system did not reveal any clinical abnormality, and there was no organomegaly or ascites.

Initial laboratory investigations revealed: Hemoglobin: 14.5 g%, total white blood cell: 17,200/cumm, neutrophils: 88%, lymphocytes: 10%, monocytes: 2%, erythrocyte sedimentation rate: 09 mm 1st h. Renal and liver function tests and coagulation parameters, chest X-ray were normal.

Magnetic resonance imaging of brain revealed mild atrophy of brain parenchyma.

Cerebrospinal fluid (CSF) analysis revealed protein: 150 mg/dL, sugar: 10 mg/dL, cells: 1,200/cumm, polymorphs 80%, and lymphocytes 20%. CSF gram stain showed numerous gram-positive cocci. This was followed by CSF culture report, showing growth of *Streptococcus pneumoniae*.

He was empirically started on intravenous antibiotic with ceftriaxone and vancomycin. On arrival of CSF culture and sensitivity report, he was continued with intravenous ceftriaxone.

During the 1st day of hospital stay, he developed peripheral gangrene involving digits of lower limb with ecchymotic skin rash over feet. On examination, peripheral pulses were normally palpable.

Doppler study of lower limbs showed normal arterial flow.

Echocardiography showed no cardiac abnormality.

Serology for hepatitis viruses and human immunodeficiency virus was negative. Peripheral blood smear for malarial parasite was negative.



Figure 1: Peripheral symmetrical gangrene of lower limb digits

The repeat coagulation parameters showed no abnormality.

He showed signs of recovery of sensorium on 4th day of antibiotics. His vital parameters were maintained. The ecchymotic skin lesions subsided; however, the digital gangrene became more well-demarcated [Figure 1].

With continued antibiotic therapy and supportive measures, he recovered clinically. Surgical consultation was sought for management of gangrene, and they advised for surgical amputation of digits.

Symmetrical peripheral gangrene is most commonly associated with sepsis.

Symmetrical peripheral gangrene associated with pneumococcal infection is considered to be associated with high rates of morbidity and mortality.^[2] In a prospective study of symmetrical peripheral gangrene from India,^[3] *Pneumococcus* was the commonest infective organism.

The case in the present report survived with prompt and appropriate antibiotic use with supportive care. Care was also taken to avoid use of drugs which are associated with symmetrical peripheral gangrene. However, requirement for surgical amputation of digits could not be avoided.

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