Dengue fever is a mosquito borne, arboviral debilitating disease caused by dengue virus of Flaviviridae family. It may present as a wide spectrum of manifestations ranging from mild dengue fever to severe forms like dengue haemorrhagic fever (DHF) and dengue shock syndrome. Development of severe form of dengue may be predicted early on the basis of high risk factors like older age, presence of other associated infections, history of dengue fever in the past, haematocrit fluctuation >20%, activated partial thromboplastin time (aPTT) >30 s etc. Though, DHF may result in bleeding from any part of the body, spontaneous large muscle haematoma is seldom reported. In present investigation a rare case of large spontaneous iliopsoas haematoma developed in an elderly DHF patient is reported.

Case report

A 79-yr-old male resident of Delhi, and a known case of COPD and hypertension (both controlled on medication) presented with complaints of moderate grade fever associated with chills and rigor for one day and generalised malaise for three days. He had no other localized complaints. There was no history of bleeding from any body part. On physical examination, he was found to be haemodynamically stable with mild wheeze on chest auscultation. The systemic examinations were normal.

Baseline haematological investigations revealed thrombocytopenia (platelet count 50,000/µl) and haematocrit of 40%. Biochemical parameters were normal. Dengue IgM antibody test was positive by ELISA method. Malarial antigens were not detected in serum. Ultrasound of abdomen revealed presence of gallbladder wall oedema coherent with features seen in dengue fever.

Provisional diagnosis of dengue fever with warning signs was made and he was kept under close monitoring with conservative management. On Day 3 of admission, he complained of severe pain in left hip on left lower limb movements. Local examination of hip joint and gluteal region was unremarkable except for flexion deformity of left hip joint with painful limb movements. An immediate ultrasound of left hip (in view of risk of bleeding in joint due to thrombocytopenia) was performed which did not reveal any focal abnormality. On next day, abdomen examination revealed a firm mass in left iliac fossa region. Haematological investigation revealed a drop in haemoglobin from 12.5 to 10 g/dl and thrombocytopenia (14000/µl). These findings raised the suspicion of intra-abdominal haemorrhage. USG abdomen revealed echogenic collection within left iliopsoas muscle. Magnetic resonance imaging (MRI) of abdomen revealed a large haematoma in left iliopsoas muscle (Figs. 1a and b). He was managed with multiple single donor platelet transfusions, skeletal muscle relaxants (tab Thiocolchicoside 4 mg twice a day and analgesics (initially on oral paracetamol 500 mg sos (initial 2 days) to thrice a day (from Day 3 to 5 ) which was replaced with intravenous 500 mg four times a day (from Day 5 to Day 10) for five days. He was closely monitored by serial ultrasound for haematoma. His platelet count gradually became normal by 12 days. He was put on intermittent left leg skin traction with some weight to prevent flexion deformity. He had full range of movements at left hip joint by Day 19 of hospital stay. He was discharged in haemodynamically stable condition after discharge he was followed-up thrice. At the end of two months of
follow-up there was minimal residual focal lesion in left psoas muscle and his limb movements were free (Figs. 2a and b).

DISCUSSION

Though, spontaneous bleeding in body cavities (like thoracic, abdominal cavity) and joints in dengue haemorrhagic fever has been reported, spontaneous muscle haematoma is a rare complication. Only a countable number of case reports have been documented in medical literature. Pathogenesis of haematoma formation is not clear. It is suggested that the secondary immune response in the host to a secondary dengue virus infection causes vasculopathy, thrombopathy and disseminated intravascular coagulation. The vasculopathy includes endothelial dysfunction and increased vascular permeability. Thrombopathy consists of thrombocytopenia and platelet dysfunction which ultimately leads to bleeding. Other risk factors like old age may be contributory. Common sites of muscle haematoma that have been reported are psoas, iliacus muscle and rectus sheath. Ammer et al, Ganeshwaran et al and Ganu et al reported cases of DHF with muscle haematomas in the psoas, rectus muscle and iliopsoas, respectively. Bhat et al, reported two different cases of spontaneous psoas muscle haematoma and bilateral rectus sheath haematoma further complicating dengue haemorrhagic fever. Waseem et al and Sharma et al reported
unusual cases of DHF with the presentation of as rectus sheath haematoma.

Because of anatomic relationship between iliacus muscle and femoral nerve and presence of tough fascia covering iliacus muscle, a haematoma under the fascia may cause compressive neuropathy of femoral nerve resulting in weakness in the distribution of femoral nerve and pain in the hip area. Recovery of femoral nerve in such case may need surgical evacuation of haematoma. High clinical suspicion and close monitoring of patient are important for early diagnosis and management of such cases. Management is usually conservative and surgical intervention is rarely needed.

Conflict of interest: None.

REFERENCES


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