ACUTE ACALCULOUS CHOLECYSTITIS IN DENGUE HEMORRHAGIC FEVER

Sir,

We report on two cases of dengue hemorrhagic fever (DHF) complicated by acute acalculous cholecystitis (AAC) and localized peritonitis that resolved on conservative management.

The first patient, a 15-year-old boy, presented with a 3 days' history of fever, headache, lethargy and a generalized petechial rash. Investigation showed thrombocytopenia (13 × 10^9/L), hypoalbuminemia (31 g/L) with high transaminases (six times the upper limit of normal). Dengue IgM serology was positive. The next day, he had right hypochondrial and epigastric pain. He was in shock (80/60 mmHg), had tenderness with guarding and rebound tenderness in the upper abdomen. Ultrasonography showed a thickened gallbladder wall [Figure 1]. He was diagnosed as having DHF with AAC and was treated conservatively with fresh frozen plasma and platelet transfusions. The rebound tenderness persisted for 72 h and he made full recovery. Repeat imaging 2 weeks later was normal.

The second patient, a 23-year-old woman, presented with a four days' history of fever and shoulder pain. Examination showed a generalized petechial rash. Investigations revealed thrombocytopenia (13 × 10^9/L), raised serum transaminases (10 times the upper limit of normal) and low albumin (24 g/L). Dengue IgM serology was positive. ESR and CRP were normal. On the eighth day of illness, she developed shock accompanied by rebound tenderness in the right hypochondrium. Ultrasonography showed thickened gallbladder wall. A final diagnosis of DHF with AAC was made, and she was also managed conservatively. Within 3 days, the platelet count and albumin level improved, with disappearance of rebound tenderness.

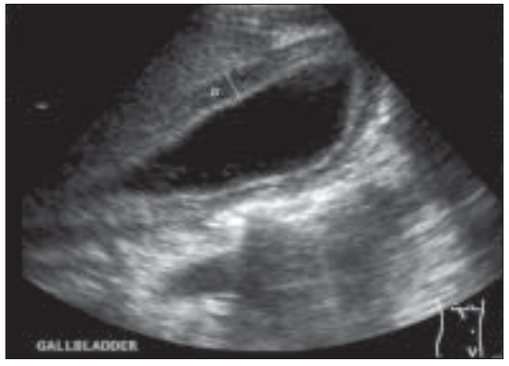

Figure 1: Ultrasonogram of the gallbladder showing the thickened wall (7.9 mm)

Acute acalculous cholecystitis is a rare complication of dengue fever.[1-4] The pathogenesis is not entirely clear, though a likely mechanism may be the abnormal permeability of serous membranes causing capillary leak, as a result of direct viral invasion and hypoalbuminemia. Both patients had upper abdominal pain, gallbladder wall thickening and transient rebound tenderness, confirming the diagnosis of AAC. In a previous report of AAC, the histopathology of two gallbladders removed surgically showed chronic inflammatory cell infiltrate in the wall with erythrocytes in the lumen.[5] However, a recent contrasting report revealed a normal gallbladder wall in a patient with AAC with DF complicating pyrexia of unknown origin.[6] If a patient with dengue fever develops abdominal pain with localized tenderness in the right upper quadrant, AAC should be suspected and investigated. The course of AAC in DF is usually benign and management is conservative.

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