

Dengue Fever Presenting with Acute Appendicular Perforation

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Abstract

Dengue fever has a wide spectrum of gastrointestinal manifestations, ranging from mild discomfort to severe complications. Rarely, it may present with or mask acute surgical emergencies such as appendicitis or appendicular perforation. We present a rare case of a 14-year-old male with dengue infection who developed acute appendicular perforation, successfully managed with emergency appendectomy. This highlights the importance of considering surgical causes of abdominal pain in dengue patients.

Case Report

A 14-year-old boy presented with high-grade fever, vomiting, and progressive abdominal pain. He had no significant co-morbidities. Dengue NS1 antigen and IgM antibodies were positive. Laboratory evaluation revealed thrombocytopenia and elevated liver enzymes. Despite supportive management, the abdominal pain worsened and peritoneal signs appeared. Radiological evaluation showed free intraperitoneal air and free fluid. A diagnosis of acute perforative peritonitis was made, and emergency appendectomy was performed. The postoperative course was uneventful. The patient was treated with intravenous antibiotics, improved clinically, and was discharged in stable condition on the fifth post-operative day.

Laboratory and Histopathology Findings

Histopathology (Excised Appendix) - Gross: Appendectomy specimen measuring 8 cm x 2.5 cm, lumen filled with fecolith.

Microscopy: Appendix lined by intact mucosa. Submucosa showed proliferating blood vessels and dense chronic inflammatory infiltrate comprising lymphocytes and plasma cells. Serosal surface demonstrated necrosis with acute inflammatory exudate.

Impression: Acute appendicitis with periappendiceal abscess.

Discussion

Dengue infection is endemic in tropical regions and frequently affects the gastrointestinal system. Most manifestations are mild; however, rarely, true surgical



Fig. 1:

emergencies like appendicitis or perforation may occur, posing diagnostic challenges due to overlapping symptoms with viral illness. The likely mechanisms include viral-induced immune dysfunction, vascular leak, ischaemia, and bowel wall edema leading to obstruction and infection. In this case, the progression of abdominal pain, to perforation peritonitis and then to appendectomy was seen. Few paediatric cases of dengue-associated appendicitis or perforation are reported in the literature. Awareness and timely surgical referral are crucial, as delaying intervention may result in sepsis and poor outcomes.

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