



PREPYLORIC PERFORATION IN DENGUE INFECTION A RARE CASE

General Surgery

Dr Jaiswal Ram Junior Resident, Department of Gen. Surgery, BHRC and BVDUMC, Pune

Dr Sangle Ameya R* Senior Resident, Department of Gen. Surgery, BHRC and BVDUMC, Pune
*Corresponding Author

Dr. Mrs. Chandorkar Shubha S. Professor and Head of Unit, Department of Gen. Surgery, BHRC and BVDUMC, Pune

ABSTRACT

Dengue fever is a major public health problem with high morbidity and mortality in tropical and subtropical countries. Dengue infection may result in a spectrum of illness ranging from undifferentiated mild febrile illness to severe disease, with or without plasma leakage and organ impairment. Gastrointestinal manifestations are increasingly being identified in severe dengue infection. Gastric perforation is very rare manifestation in dengue infection. Here we report on a case of a 25 year old man who was diagnosed with dengue fever with perforative peritonitis due to a prepyloric perforation with no prior symptoms of a gastric ulcer.

KEYWORDS

INTRODUCTION-

Dengue fever is a major public health problem with high morbidity and mortality in tropical and subtropical countries.[1] Dengue infection may result in a spectrum of illness ranging from undifferentiated mild febrile illness to severe disease, with or without plasma leakage and organ impairment.[1] Atypical manifestations of dengue are also on the rise as the incidence of dengue is increasing globally.[2] However, the proof of intestinal mucosal injury in dengue infection has not been investigated. Since acute liver failure and encephalopathy are complications in severe dengue infection (Thisyakorn et al, 1999), together with the fact that organ failure can be induced by intestinal mucosal injury (Lieberman et al, 1998), it is probable that intestinal ischemia or injury plays a pathophysiological role in dengue infection.[7]

CASE REPORT-

A 25 years old male came in casualty with complaint of fever with chills, arthralgia and generalized weakness since 3 days. He had also complaint of generalized severe abdominal pain with multiple episode of vomiting since 1 days. Patient had no history of taking NSAIDs and steroid and acid-peptic disease in past. He has no history of addiction to anything. No history of any co-morbidities or previous surgery.

On examination patient was febrile (101 F), pulse rate was 102/min and blood pressure 110/70 mmHg.

On systemic examination, his abdomen was distended, generalized tenderness, guarding and rigidity and bowel sound was sluggish.

The initial full blood count showed hemoglobin 14.1 gm%, total leucocyte count 6900 and platelet count was 87000. The dengue non structural protein 1 antigen was positive. His urea was 17 and creatinine was 0.77. His coagulation profile and LFT was normal. X-ray chest showed bilateral free gas under diaphragm which was suggestive of pneumoperitonium.



Figure 1: X-ray chest showing bilateral free gas under diaphragm.

Patient taken up for emergency exploratory laparotomy. A midline

exploratory laparotomy was performed and prepyloric perforation was diagnosed intra operatively. The perforated site was repaired with Graham's omentoplasty. Three units of platelets were transfused post operatively.



Figure 2: Intra Op image showing prepyloric perforation

Discussion-

-Gastrointestinal manifestations of dengue are increasingly being identified and reported, such as hepatitis, fulminant hepatic failure, acalculous cholecystitis, acute pancreatitis, acute parotitis and febrile diarrhoea.[1]. The gastrointestinal manifestations of dengue are not rare and should not be overlooked[3].

The presence of free intraperitoneal gas on a routine radiograph usually indicates bowel perforation. Experimental studies have shown that as little as 1 ml of gas can be detected below the right hemidiaphragm on properly exposed erect chest radiographs.[4]

-In this case, the initial assessment of abdomen revealed generalized tenderness and guarding and rigidity present which suspicious of pancreatitis, acalculous cholecystitis and gastrointestinal perforation which is rarely reported in dengue infection. The exact mechanism of gastrointestinal perforation in dengue fever remains unclear as mentioned in a few previous case reports.[5]

-In a series of hollow viscous perforation by Alam et al.,[7] it was found that there were 2 cases of intestinal perforation due to dengue hemorrhagic shock syndrome. But they did not mention the site and number of perforation.[6] However, the proof of intestinal mucosal injury in dengue infection has not been investigated.[7]

Conclusion-

Gastrointestinal manifestations are increasingly being identified in severe dengue infection. Gastric perforation is very rare manifestation in dengue infection.

References-

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