

Case Report

An elusive case of acute abdomen in dengue fever

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Received: 18 January 2017

Accepted: 03 March 2017

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ABSTRACT

Currently dengue is endemic in all continents except Europe and epidemic dengue hemorrhagic fever occurs in Asia. Hemorrhagic manifestations observed at every stage of illness, they are probably the summation of ill understood virus as well as host factors that result in the incompetence of vesicular endothelium.

Keywords: *Aedes aegypti*, Dengue, Hemorrhagic fever

INTRODUCTION

Dengue fever is endemic Hemorrhagic fever. About two-thirds of the world's population lives in area infested with dengue vectors, mainly *Aedes aegypti*.¹ Dengue fever is caused by four distinct dengue virus types 1, 2, 3 and 4 belonging to genus *flavi* virus of family *togavirididae* and all 4 types are prevalent in India. The disease is endemic urban and semi urban area with periodic epidemics, virus is transmitted to man by bite of infective vector *Aedes aegypti*. Incubation period is 3 to 15 days. Dengue fever is characterised by sudden onset of fever, intense head ache, retro-orbital pain, joint and muscle pain, maculopapular rash, generalised erythema, epistaxis. Bleeding gums, petechial rashes and subconjunctival hemorrhage are present occasionally.²

The hemorrhagic signs are petechiae, nose bleeding, haematemesis, bleeding per rectum and vagina. Initial replication in lymph nodes, later in vascular endothelium. The elimination of virus parasitized cells late in course of the illness may be responsible for second fever spike, the late maculopapular rash and other post illness phenomena. Hemorrhagic manifestations observed at every stage of illness, are probably the summation of ill-understood virus as well as host factors that result in the incompetence of vascular endothelium.

There are very few case reports with hemoperitoneum secondary to spontaneous rupture of spleen in dengue fever.^{3,4} We report a case, positive for dengue IgM with hemoperitoneum, normal spleen and liver, and without any bleeding manifestations.

CASE REPORT

A 48-Year-old male from Bangalore, Karnataka, India known diabetic on oral hypoglycemic agents presented to emergency department in July 2010, with high grade fever, headache, abdominal pain and distension of abdomen, generalized myalgia, he was febrile of 3 days, no rash and no lymph adenopathy, smear was negative for malaria, dengue serology positive for IgM and IgG, thrombocytopenia.

Blood and urine cultures were negative and ultrasound scan showed borderline hepato splenomegaly, gallbladder wall thickening and mild ascites. Investigations showed Hemoglobin 9.4gm%, White cell count 5500cu/mm, Neutrophils 50%, platelets 84000, prothrombin time and INR were in normal range. sodium 134meq/l potassium 4.3meq/l, amylase 26U/L. SGOT and SGPT were 54 and 48 respectively. Dengue was diagnosed with dropping platelet count and positive serology of dengue IgM, IgG by immunochromatography method.

It was supposed that ascites was part of the viral illness which is usually self-limiting. The patient continued to have abdominal discomfort which was a concern. Patient complained of persistent abdominal pain, evaluation revealed haemoglobin reducing from 9.4gm% to 4.6gm%, and hematocrit levels dropped from 34% to 23% was seen, abdominal ultrasonography revealed increased ascitic fluid levels.

Hence paracentesis was done, after several attempts of tapping a fluid was tapped which was haemorrhagic and considered to be traumatic, considering clinical condition and blood parameters ultrasound guided paracentesis is done, 500ml of hemorrhagic fluid drained, following which Haemoglobin and hematocrit were reduced, so 3 pints of packed red blood cells were transfused. The abdominal discomfort persisted, surgeon opinion was taken and planned for laparoscopic drainage of hemoperitoneum, on laparoscopy 1.5 liters of serum hemoperitoneum with blood clots seen over the anterior surface of liver.

Liver and spleen are found to be normal, peritoneum is found to be hyperemic. Biopsy drain was taken which was normal in histopathology. Peritoneal drain was kept for 2 days, abdominal discomfort decreased, thrombocytopenia recovered, no further accumulation of fluid seen in peritonium, patient was discharged in stable condition and was advised for follow-up. During follow-up, ultrasonography did not reveal any further ascites. However, the aspirate looked like a jelly and did not form coagulation.

DISCUSSION

This case was an unusual presentation of dengue fever in this geographical area, as our institute is well recognized in whole of Karnataka, India, for its input (about 250-300

positive cases/month with regard to dengue fevers/dengue hemorrhagic fevers.^{1,2} The reason for publications very unusual thing was though the ascitic fluid was frankly hemorrhagic it did not form any coagulum and had very high viscosity. Other things to tease out brains is to what other test could have been required for finding out what could be the possible reasons for the ascitic fluids nature without any obvious source for bleeding on laparoscopy and no other reasons like hemorrhagic pancreatitis, tuberculosis of abdomen, malignancy etc. The entire case record does not fit either to dengue hemorrhagic fever or dengue shock syndrome as the haematocrit value decreased and not associated symptoms suggestive of shock.^{3,4} There are numerous cases of hemoperitoneum in dengue secondary to splenic rupture. We would like to report Hemoperitoneum in dengue fever with normal abdominal viscera and normal coagulation parameters which is the unusual presentation of this case.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Ramesh KN, Gowda A. An elusive case of acute abdomen in dengue fever. Int J Res Med Sci 2017;5:1695-6.