

TEACHING FILE

8 years old with fever, ascitis and hepatomegaly

Ira Shah

Case Report: - An 8 years old boy born of non-consanguineous marriage presented with fever since 15 days, vomiting 15 days back lasting for 3 days, abdominal pain and blood in stools since 3 days. There was no history of jaundice, high coloured urine, oliguria or rash. On examination, he had bradycardia (pulse = 68/min) with fever (101°F), pallor and ecchymosis. There was a café au lait spot 12 x 13 cm over right buttock. His blood pressure was 104/66 mm of Hg. On systemic examination, he had tender hepatomegaly and other systems were normal. On 3rd day of presentation, he developed ascitis.

What is the diagnosis?

Expert's opinion: - This child predominantly has fever and hepatitis with bleeding manifestations and ascitis. This leads one to think of infective hepatitis. Also, a look for leukemia should also be done. Since the child's fever has still persisted even after 15 days and there is no jaundice, Hepatitis A or E seems unlikely. Liver disease may lead to deranged prothrombin time and partial thromboplastin time which may lead to deep and internal bleeding. Mucosal and skin bleeding would be rare. This child had predominantly ecchymosis and thus one would think of an associated platelet defect such as thrombocytopenia.

Malignancy can lead to fever, thrombocytopenia and pallor but ascitis without significant weight loss, lymphadenopathy or splenomegaly or bone pains seems unlikely.

Thus, with hepatitis, thrombocytopenia, ascitis and fever one would consider a differential diagnosis of leptospira or dengue fever. Malaria would be unlikely as there would be other signs such as splenomegaly and ascitis would be rare. Similarly in enteric fever, ascitis would be rare and if the child has thrombocytopenia, then signs of sepsis should be present. To differentiate between leptospira and dengue, one clinical finding that seems to be significant is bradycardia. Usually with fever, blood loss one would expect tachycardia. Since this child has bradycardia, an additional cardiac involvement may be there. Of the two, dengue and leptospira, dengue is known to cause cardiac problems. Hence one would first consider a diagnosis of Dengue Hemorrhagic fever in this child. The child's investigations did confirm the diagnosis of Dengue Hemorrhagic Fever (He had a positive Dengue IgM, thrombocytopenia, hemoconcentration, elevated liver enzymes, normal renal function tests and prolonged PT & PTT). His leptospira, malaria tests were negative. Also his echocardiography showed borderline systolic dysfunctions.

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