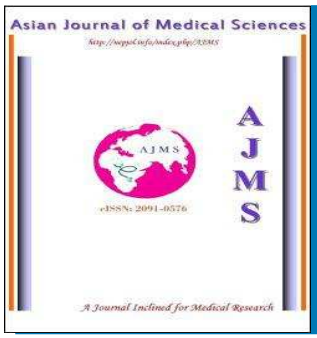

ATYPICAL PRESENTATION OF THYPHOID FEVER

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ABSTRACT

The classical presentation of typhoid has changed over the years. Atypical presentation of typhoid is now seen in clinical practice. Entericfever can present with atypical manifestations like abdominal lymphadenopathy, acute acalculous cholecystitis, osteomyelitis, splenic abscess and Pneumonia.

Jaundice splenic abscess and thrombocytopenia in a febrile patient in the tropics is commonly due to Malaria, Leptospirosis and Dengue. We report a case of typhoid fever presenting with jaundice and thrombocytopenia. A 17 year old male presented to us with history of fever and jaundice. Investigations revealed thrombocytopenia and conjugated hyperbilirubinemia. Blood culture grew Salmonella Typhi. He was treated with ceftriaxone and he improved. A diagnosis of typhoid fever must be considered in a febrile patient with jaundice and thrombocytopenia in the tropics.

Key words: Typhoid fever, Typhoid hepatitis, Thrombocytopenia, Jaundice.

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"Atypical presentation of typhoid is now seen in clinical practice."

INTRODUCTION

Typhoid fever is an important public health problem in developing countries. Classical symptoms and signs of typhoid are gradual onset of sustained fever, abdominal pain and hepatosplenomegaly.[1] The classical presentation of typhoid has changed over the years. Atypical presentation of typhoid is now seen in the tropics.[2] Entericfever can present with atypical manifestations like abdominal lymphadenopathy[3] acute acalculous cholecystitis[4], osteomyelitis[5], splenic abscess[6] and pneumonia.

Liver involvement in typhoid fever was reported by William Osler way back in 1899. Typhoid fever presenting with jaundice and thrombocytopenia is very rare. We report a case of typhoid fever presenting with jaundice and thrombocytopenia.

CASE REPORT

A 17 year old male came to our hospital with complaints off ever of eight days duration. History of jaundice for last five days was present. On examination he was febrile. Icterus was present. Abdominal examination revealed hepatomegaly and splenomegaly.

Lab investigations showed Hemoglobin -14.2g/dl, Total White Blood Cell count- 4000 cells/cu.mm, Differential count– N90, L7, M3, platelet count-42,000 cells/cu.mm, ESR- 8mm/1st hour. Peripheral smear-leukopenia with thrombocytopenia. Total bilirubin – 8.1 mg%, Direct Bilirubin -7.2 mg%,Total protein- 5.6g/dl , Albumin-2.8g/dl, Aspartate transaminase (AST)-231 U/L, Alanine transaminase (ALT)- 131 U/L, Alkaline phosphatase (ALP)- 298 U/L. Serum electrolytes, prothrombin time and renal function was normal. Leptospira Ig M- negative. Dengue Ig M- negative. Ultrasound abdomen showed hepatomegaly and splenomegaly. Widal test was positive (Salmonella Typhi H - 1 in 320). Blood culture grew Salmonella Typhi after 21 hours of incubation.

Platelet counts dropped to 29,000 cells/cu.mm two days after admission. Platlet transfusion was given. He was treated with injection ceftriaxone and he became afebrile within seventy two hours.

Histotal bilirubin and direct bilirubin decreased to2.6mg%and 1.83mg%seven days after admission. He was discharged after ten days of hospital treatment on oral Cefixime. His jaundice disappeared completely within four weeks.

DISCUSSION

Our patient had two unusual manifestations of typhoid fever (frank jaundice and thrombocytopenia) during initial presentation. We considered a possibility of malaria and leptospirosis initially as these diseases present with frank jaundice and thrombocytopenia. Typhoid fever is often associated with abnormal biochemical liver function tests, but severe hepatic involvement presenting with frank jaundice is rare. Rasoolinejad et al[7] have reported that out of 107 cases of typhoid fever, only 2 (1.86%) patients had clinical jaundice. In a study of 32 patients of typhoid fever (from India), none had jaundice.[2]

The initial site of salmonella infection is the lymphoid tissue of the gut. Hematogenous dissemination of the organism or its toxin results in systemic involvement that can affect all major organs. Salmonella produce liver dysfunction by direct invasion or by endotoxemia. The bacteria may also proliferate in the hepatocytes and produce hepatic damage by stimulating the synthesis of cytokines.[8] Typhoid hepatitis (Hepatitis Typhosa) is seen in about 4.8% of typhoid fever.[9] Khosla considered a diagnosis of typhoid hepatitis when a patient fulfilled three or more of the following criteria: hepatomegaly, jaundice, biochemical abnormalities or abnormal liver histopathology. Our patient fulfilled the criteria for typhoid hepatitis.

Typhoid fever may also present as cholestatic hepatitis.[10] The exact pathophysiology of cholestatic pattern of liver involvement in preference to hepatitis in not clearly defined. Patients who have typhoid hepatitis have a higher relapse rate.[9] The incidence of gastrointestinal hemorrhage, ileal perforation and mortality is high in jaundiced typhoid patients.[11]Our patient also had thrombocytopenia. In a retrospective study[12]involving 119 patients with typhoid fever 2.6% of the subjects had platelet counts in between 10,000-50,000/mm^3.

The incidence of such atypical manifestations is high in MDRTF (Multidrug-resistant typhoid fever) .MDRTF can sometimes mimic endemic diseases such as malaria, viral hepatitis, bronchopneumonia or meningitis.[13] Our patient did not have MDRTF.

The treatment of typhoid is governed by local antibiotic sensitivity patterns.[14] There is an emergence of Multidrug-resistant Salmonella typhi strains in our country. So we had started empirical treatment with ceftriaxone in our patient.

CONCLUSION

Uncommon presentations of common diseases are sometimes seen in medicine. Jaundice and thrombocytopenia in a febrile patient in the tropics is commonly due to Malaria, Leptospirosis and dengue. A diagnosis of typhoid fever must be considered in a febrile patient with jaundice in the tropics. Such a case report will sensitize the clinicians about the fact that typhoid can also present with frank jaundice in the tropics.

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BA, ML& SM: Helped in the final preparation of the manuscript.

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