

Hepatic Abscess Caused By Salmonella-A Case Report.

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ABSTRACT

Salmonella typhi is a rare cause of liver abscess. Numerous extra-intestinal complications can occur with S.typhi infection, including the involvement of the cardiovascular system, pulmonary system, bone and joints, hepatobiliary system, genitourinary system etc. We describe a 65-year-old diabetic male with liver abscesses due to S. typhi. Ultrasonography revealed the rounded 8x4 cm lesion in the right lobe of liver with low echogenicity. Gram stain, abscess culture (with sensitivity testing) and blood culture provide valuable information to guide successful therapy. The patient did not respond appropriately to amebicidal therapy and culture of the liver aspirate yielded S. typhi. Percutaneous aspiration combined with appropriate antibiotic therapy resulted in a complete recovery. In the present case, we did not have definite evidence such as positive stool culture; however, we thought that gastrointestinal focus would be most likely.

Keywords: Liver abscess, Salmonella typhi

INTRODUCTION

Liver abscess is an extremely rare complication of Salmonella infection in today's era of antibiotics and is associated with high mortality. Salmonellosis is a public health problem in developing countries including India. It is easily treatable condition. We report the clinical, radiological and microbiological features of elderly male patient and review the literature also. Among the known risk factors are amoebic abscess, cholecystitis/cholelithiasis, hepatocellular carcinoma, intrahepatic hematoma, echinococcal cysts etc. Early treatment with aspiration with percutaneous catheter drainage combined with intravenous antibiotics resulted in significant, rapid and complete recovery.

mm per hour, SGOT -61 IU/L, SGPT -90IU/L, SAP-904IU/L, Serum bilirubin - 1.3 mg%, RBS -366 mg% and normal renal function tests. HIV, HBS Ag and Anti HCV Antibody were negative. Chest X-ray did not reveal any abnormality. No organism was grown from blood culture. We could not obtain stool specimen for culture. He was put on amebicidal drug. Over the next 6 days, patient pain did not relieve and hepatic tenderness continued. Ultrasonography-guided percutaneous aspiration confirmed an abscess cavity. The abscess was drained and 250 ml purulent material came. Cultures of aspirated material from the cavity grew Salmonella typhi. Appropriate antibiotic therapy was commenced for 14 days along with insulin therapy. The pigtail catheter was removed after four days of drainage and the patient was discharged in a satisfactory condition.

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CASE REPORT

A 65-year-old diabetic male admitted to our emergency unit with the complaints of right upper quadrant pain and fever for 15 days. Systemic examination revealed presence of fullness and a lump in the epigastrium over the liver, accompanied by pain, tenderness and guarding. The liver was enlarged to 3.5 cm below the right costal margin. The rest of the systemic examination was normal. Vital signs were normal except for body temperature of 39.8°C. Ultrasonography detected the presence of abscess in liver. It appeared as hypochoic lesion of low echogenicity 8x4 cms in right lobe [Figure 1]. Laboratory analysis revealed an Haemoglobin- 10 gm%, leukocyte count of 14,500/cumm erythrocyte sedimentation rate 69



Figure 1: 8x4 cm liver abscess in right lobe of liver.

DISCUSSION

Non-typhoidal salmonellosis, which is increasing nowadays, is manifested as enteritis in most cases, but it also encompasses bacteremia, intra abdominal infections, and bone, joint and soft tissue infections. Hepatic abscess, a rare complication of Salmonella infection is associated with high mortality.^[1] In this case report, we

present a liver abscess due to Salmonella. Salmonella infection is mediated mainly through fecal-oral route, and as hygiene improves, typhoidal Salmonella infection emerges less frequently in developing and developed countries, whereas infection by non-typhoidal Salmonella is increasing nowadays throughout the world. Non-typhoidal infections are mainly intra abdominal infections such as enteritis, liver abscess, splenic abscess and cholecystitis.^[2] Unusual presentation of salmonellosis as a liver abscess is a rare entity, and there have been few reports in the literature.^[3] Conditions associated with higher risk of infection are gastrectomy, achlorhydria, antacid use, impaired bowel motility, which allows the bacterial entry and survival more easily, haemolytic anaemia, and immune compromised states, such as patients with diabetes mellitus, connective tissue disorders or use of immuno-suppressive agents for many different diseases.^[4] The most likely mechanism of colonization of the liver is the ascent of the organism to the intra-hepatic biliary tract during the episode of gastroenteritis. Percutaneous drainage or laparotomy is the cornerstone in the treatment of Salmonella liver abscesses. Early recognition, followed in most cases by adequate percutaneous catheter drainage, has provided a safe and effective means of treatment and has lowered morbidity and mortality significantly.^[5]

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CONCLUSION

Following bacteremia, salmonella has the propensity to seed and cause focal suppurative infections of many organs. Control of infections to humans require control of infection in the animal reservoir, judicious use of antibiotics, prevention of contamination of foodstuffs and the use of appropriate standards in food processing in commercial and private kitchens.

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