



Enteric pancreatitis: Rare association in young elderly

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General Note



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ABSTRACT

In tropical nations Enteric fever is a common infectious disease. Acute pancreatitis is one of the rare complications of enteric fever. In this case report is a 65 years old male patient who presented with fever and abdominal pain and diagnosed as acute pancreatitis

with enteric fever. Acute pancreatitis is an unusual presentation of enteric fever and should be kept in mind when patients in endemic countries like India present with fever and abdominal pain. This will prevent delay in starting appropriate treatment.

Keywords: Enteric fever, typhoid fever, acute pancreatitis, abdominal pain

1. INTRODUCTION

Enteric fever is caused by *Salmonella typhi* and *Salmonella paratyphi*. In India the incidence is 1000 cases per 1,00,000 cases per year (Agarwal et al., 2004). Enteric fever causes involvement of various organ systems like gastrointestinal, muscular, nervous system and skin manifestations (Meena et al., 2013). Enteric fever can be associated with gastrointestinal complications like intestinal hemorrhage, intestinal perforation, hepatic abscess, acute cholecystitis, splenic rupture and hepatitis (Kayar et al., 2016). Enteric fever presenting with initial manifestation of pancreatitis is a rare presentation. In a patient of fever with abdominal pain in developing countries, this should be kept in mind if other features are suggestive of enteric fever (Chakrabarti et al., 2014). Enteric fever is common in children and young adults. In elderly patients, enteric fever and pancreatitis is a rare entity and has increased morbidity.

2. CASE PRESENTATION

A 65 years old non diabetic, non hypertensive male patient was admitted with chief complaints of fever and mid upper abdominal pain for 15 days. Fever was high grade and intermittent in nature. Abdominal pain was radiating to the back and aggravated with food intake. He also had complaints of vomiting since 15 days. No history of cold, cough, loose stools, haematemesis, melaena, chest pain, breathlessness, palpitations, sweating, giddiness, decreased urine output, swelling of legs, bleeding manifestations, trauma and loss of consciousness. He was non smoker and non alcoholic. He had history of taking some ayurvedic medications for the same 1 week back. Patient was conscious and oriented on general examination. Signs of dehydration were present. Patient was febrile with axillary temperature 101degree Fahrenheit. Mild pallor and icterus was also present. Heart rate was 98/min, blood pressure was 100/70mmHg, oxygen saturation was 94% at room air. There was no postural hypotension. On systemic examination there was epigastric tenderness with normal bowel sounds. Other system was normal on examination.



Figure 1 Contrast enhanced Computed tomography (CECT) abdomen showed bulky body and tail of Pancreas.

Laboratory investigations revealed his Hemoglobin as 10.4gm/dL, total leukocyte counts 3,300/cumm and platelet counts 98,000/cumm. Peripheral smear showed normocytic, normochromic RBC's, Absolute platelet count was 98,000 cells/cumm. His Serum sodium was 133meq/L, potassium 4.8 meq/L and calcium was 8.1 mg/dL. Lipid profile including triglycerides was normal. Serum amylase and serum lipase were 316 and 2000 respectively. Liver enzymes were normal (Aspartate aminotransferase of 47,

Alanine aminotransferase of 36) and normal bilirubin, albumin and globulin levels (total bilirubin of 1.2mg/dL, conjugated bilirubin of 0.5mg/dL and unconjugated bilirubin of 0.7 mg/dL, albumin of 3.3, globulin of 3.1). Serum creatinine was 1.1 mg/dL, Urea was 34mg/dL Urine analysis revealed trace proteinuria. Ultrasonography of the abdomen revealed mild hepatosplenomegaly along with heterogenous and bulky appearing body and tail of pancreas suggestive of acute pancreatitis. There was no evidence of gallstones or biliary tract obstruction. Contrast enhanced Computed tomography (CECT) of the abdomen showed presence of Hepatosplenomegaly with mesenteric adenitis, bulky head and tail of pancreas, (figure 1). His chest film revealed minimal left side pleural effusion. No growth was seen in blood and urine cultures. Widal card test was significant with a titre of H- 1:480, O- 1:380. Serological tests for malaria, scrub typhus, leptospirosis, dengue, Hepatitis B virus, Hepatitis C virus and human immunodeficiency virus was negative. Patient was treated with injectable antibiotics as ceftriaxone 1gm twice a day along with intravenous hydration, analgesics and antiemetics. The fever settled after 6 days of starting antibiotics. On follow-up after 15 days patient was comfortable and fever had subsided. Serum amylase and lipase levels returned to normal levels.

3. DISCUSSION

Enteric fever presenting with initial manifestation of acute pancreatitis is rare. Typhoid fever can be associated with abnormalities of pancreas such as biochemical abnormalities like elevation of serum amylase, abscess of pancreas, chronic pancreatitis or pseudocyst of pancreas which may further require surgery. Acute pancreatitis in enteric fever is thought to be due to direct pancreatic colonisation of the main pancreatic duct. This may occur especially in conditions with predisposing factors where biliary stasis can occur like in cholelithiasis, choledocholithiasis and biliary duct abnormalities (Kumar et al., 2013). However in our patient there was no evidence of gall bladder and bile duct disease. Localised salmonella infection of the pancreas is usually the result of salmonella bacteremia caused by *salmonella choleraesuis* but may also occur after gastroenteritis by *salmonella typhimurium* and enteric fever by *salmonella typhi*. Pancreatic abscess develops as a sequaele to pancreatitis. Pancreatic pseudo cyst occasionally may be infected by *salmonella typhi* (Kadappu et al., 2002). In this patient there were no predisposing factors. Other mechanisms may include toxin induced or immune mediated mechanisms. In some patients there may be isolated hyperamylassemia and hyperlipasemia without pancreatic involvement due to a reduced excretion which can be due to impaired renal or liver function. In enteric fever the salmonella infection can lead to hyperamylassemia by abnormally increasing the absorption of macromolecules like amylase (Kumar et al., 2013).

4. CONCLUSION

This case report shows that acute pancreatitis can occur in enteric fever and be the presenting manifestation. Diagnosing this as early as possible helps in starting early treatment and resolution of a potentially deadly condition especially in elderly individuals.

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Conflict of Interest

The authors declare that they have no conflict of interest.

Informed consent

Written and oral informed consent was obtained by the patient before writing case report.

Data and materials availability:

All data associated with this study are present in the paper.

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