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CASE REPORT

SCRUB TYPHUS PRESENTING AS ACUTE PANCREATITIS: A RARE CASE

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ABSTRACT

Scrub typhus is an insect-borne disease caused by Orientia sutsugamushi which may cause disseminated vasculitis and perivascular inflammatory lesions resulting in significant vascular leakage and cause end organ damage. Scrub typhus can lead to severe complications such as acute respiratory distress syndrome (ARDS), myocarditis, hepatitis and meningoencephalitis. Some unusual presentations of scrub typhus are peritonitis, gastric ulceration, duodenal ulcer perforation and acalculous cholecystitis. But acute pancreatitis is a relatively rare complication of scrub typhus. Here we report a rare case of scrub typhus in the form of acute pancreatitis.

KEYWORDS: Scrub Typhus; Orientia tsutsugamushi; Thrombocytopenia; Acute Pancreatitis; Acute Respiratory Distress Syndrome; Myocarditis; Hepatitis; Meningoencephalitis; Fever; India.

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INTRODUCTION

Scrub typhus is endemic in most parts of India and causes multiple organ failure in some patients. Scrub typhus is an insect-borne disease caused by Orientia sutsugamushi, which is transmitted to humans by the bite of thrombocytopenic mite larvae.[1,2] Scrub typhus is classified as a febrile disease with thrombocytopenia, although it rarely causes lifelong damage.

CASE REPORT

32-year-old male from rural area came to the outdoor with complaints of fever since past three days which was high grade and continuous in nature. He also had complaints of acute abdominal pain since past one day, which was localized to hypochondrial and epigastric region, severe in intensity, aching type, which was partially revealed on bending forward. He also complained of vomiting two episodes since past one day, non-projectile, vomitus contained food particles, non-bilious and non-blood stained. On general examination, patient was conscious, oriented, febrile, pulse rate 110/mints and blood pressure 100/60 mmHg. There was no pallor or icterus. Patient had an eschar over the chest wall. (Figure 1)

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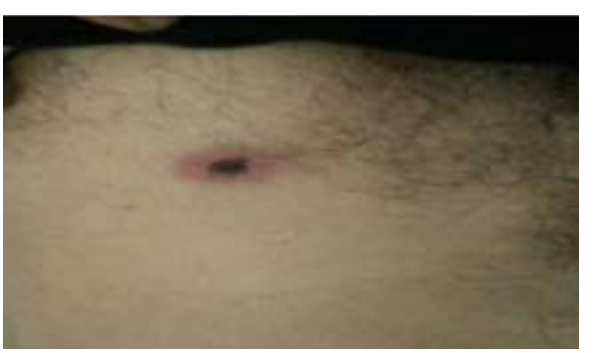

Figure 1: Eschar over the chest wall of a 32 years old male; a case of scrub typhus presenting as acute pancreatitis

Abdominal examination revealed tenderness over epigastric region, abdominal guarding and rigidity. Cardiovascular, respiratory and neurological examinations were normal.

All necessary investigations were done and showed leucocytosis with total count of 15,400 with predominant neutrophils and thrombocytopenia with platelet count of 70,000. Renal and liver function tests were normal. Serum amylase 720 md/dL and lipase 540 mg/dL; levels were elevated. USG abdominal showed fluid in the lower sac along the body of the pancreas indicating a pancreatic pseudocyst. Patient was positive for scrub typhus immunoglobulin M by ELISA. Patient was NPO and started on Inj. Ceftriaxone 2gm/day and Doxycycline 200 mg/day and other supportive medications. Patient improved clinically and became afebrile and his serum amylase, lipase levels came back to normal level and patient was discharged.

DISCUSSION

Scrub typhus is a zoonotic disease that is more common in Asian countries such as India, Indonesia, Japan and other countries known as "tsutsugamushi triangle.[4] Scrub typhus infection has been reported more frequently in India from Jammu and Kashmir, Uttaranchal, Rajasthan, Assam, Himachal Pradesh, Maharashtra, West Bengal, Kerala and Tamil Nadu.[5-8] In spite of scrub typhus being endemic in South-East Asian countries, there is lack of diagnostic tools for its diagnosis, thereby resulting is under-reporting of scrub typhus. In a study conducted by the National Centre for Disease Control, the prevalence of scrub typhus was much higher at 42.6% in FUO.[9] Previous studies have reported higher rates of scrub typhus during the rainy season.[10] Because worms are most active in India during the monsoon season or late August to September.[11,12]

The prohibitive cost of conducting high-end investigations such as immunofluorescence, western blot, or PCR-based tests further hampers accurate diagnosis and management of rickets in developing countries such as India, where the epidemiology and burden of rickets are largely unknown. Simple, cost-effective tests, namely Weil–Felix test and rapid agglutination assays, can aid doctors choose the correct course of treatment.[9]

Scrub appears to be a highly febrile illness with a broad spectrum from typhus fever, headache, myalgia, generalized lymphadenopathy, exanthematous rash to life threatening situations, such as diffuse intravascular coagulation, acute renal failure, myocarditis, acute respiratory illness, and meningoencephalitis.[1] But presenting as acute pancreatitis is uncommon and may be due to the involvement of internal inflammatory process by vasculitis, but the exact mechanism is still unknown.[2] Treatment with Doxycycline and Ceftriaxone is effective in these cases.

CONCLUSION

Although it is rare; scrub typus can cause acute pancreatitis and present as acute abdomen. A doubt of scrub typhus must be suspected in patient with fever and acute abdomen, especially if there is added thrombocytopenia.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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AUTHORS' CONTRIBUTION

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Conception or Design:	APGK
Acquisition, Analysis or Interpretation of Data:	APGK, SSK, DB
Manuscript Writing & Approval:	APGK, SSK, DB

All the authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.