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Case Report

Epididymo: Orchitis in an Adult with Scrub Typhus

T. Vishwa Teja[1], Girija Subramanian[2], Karthikeyan Balu[3], Harish. Rajaram[4]

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Abstract

Introduction: Scrub typhus is a re-emerging Rickettsial infection presenting with protean manifestations and increasingly reported from all over the country. It is an important cause of acute febrile illness. *Case Report:* A middle aged adult male presented with complaints of fever, abdominal pain and pain in the testes of about two weeks duration. On examination patient was toxic, icteric, had inguinal and cervical lymphadenopathy, hepatosplenomegaly and unilateral tender testes and epididymis. All common causes of FUO (viz) Malaria, Typhoid fever; Dengue and Brucellosis were ruled out by laboratory tests. Serology for Scrub typhus was positive. The patient responded in 24 hours to Doxycycline thus clinching the diagnosis. *Conclusion:* This case is reported because of the unusual complication of epididymo orchitis in an adult due to Scrub typhus.

Keywords: Scrub Typhus; Epididymo Orchitis; Doxycycline.

Author's Affiliation: [1]Postgraduate [2]Professor, [3]Assistant Professor [4]Senior Resident, Department of General Medicine, Sri Manakula Vinayagar Medical College and Hospital, Puducherry.

Reprint Request: Dr. T. Vishwa Teja, Final year postgraduate, Department of General Medicine, Sri Manakula Vinayagar Medical College and Hospital, Kalitheerthalkuppam, Madagadipet, Puducherry - 605107.

E-mail: vishwa.487@gmail.com

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Introduction

Scrub typhus is a important cause of an acute febrile illness with thrombocytopenia caused by a Rickettsiae Orientia tsutsugamushi, being increasingly reported in India [1]. Clinical manifestations are varied and it may range from classical presentation of fever, rash, headache, malaise, eschar, and lymphadenopathy to some uncommon complications such as pneumonitis, ARDS, acute renal failure, myocarditis, gastrointestinal bleeding, septic shock and pancreatic abscess [2,3]. We report a case of Scrub typhus where a young man presented with epididymo- orchitis, an unusual presentation which has been reported only in children, before.

Case History

A thirty four year old male, milk vendor by occupation, presented with history of fever with chills, headache, malaise and vague upper abdominal pain of two weeks duration, on the third day of fever patient noticed pain over the left scrotal region. There was no history of night sweats, cough, dysuria, discharge per urethra and loose stools. No past history of diabetes mellitus, systemic hypertension and jaundice. He was a non smoker and non alcoholic.

On examination, patient was conscious, dehydrated, and icteric. There was no rash and no eschar was noticed. Left inguinal lymph node, mobile 2x2cms was palpable. Few right posterior cervical lymph nodes were palpable. Pulse rate was 94bpm and blood pressure was 120/80 mm of Hg. Examination of cardiovascular and respiratory systems were unremarkable. Examination of abdomen revealed tender palpable liver 3cm below

right costal margin. Central nervous system examination revealed no focal neurological deficit.

This patient who presented during the end of second week of febrile illness was evaluated for the cause of fever. The laboratory parameters were as follows: Hemoglobin 11.6 g/dl, TLC 6500 cells/cumm. RBC: 4.1 million/mm^3, MCV: 83 fl, platelet count: 1,15,000/mm^3 (on day of admission) and 2,14,000 (on sixth day of admission), random blood glucose: 98 mg/dl, blood urea: 42 mg/dl, serum creatinine: 0.6 mg/dl. Absolute eosinophil count: 300cells/cumm. Montoux test – non reactive, Brucella antibody (IgM, IgG): negative, Malarial antigen test: negative, Smear for Micro filaria: negative, HIV I & II: non-reactive, Hepatitis profile (A, B, C): negative, Leptospira antibody: Negative. Scrub typhus antibodies (Elisa): Reactive for IgM antibodies- OD of 2.385 (cut off 0.433) Blood and urine culture (including Brucella) after two weeks were sterile. Chest X ray: normal. Ultra sonogram of abdomen: mild hepatosplenomegaly, Ultra sonogram of scrotum: left epididymo orchitis. (Figure 1&2). The serial liver function tests are shown in Table 1 .

This thirty four year old male, a milk vendor by occupation, presented with febrile illness of two weeks duration. On the third day of fever patient developed scrotal pain and developed vomiting in the second week of illness. On examination patient had mild hepatosplenomegaly and left epididymo orchitis. On evaluation he had thrombocytopenia. The causes of fever with thrombocytopenia like malaria, dengue, enteric fever and leptospirosis were all negative. In view of associated epididymo orchitis, filarial infection was suspected and a course of diethyl carbamazine was started to which the patient did not respond. Brucellosis was considered in view of his occupation and evidence of hepatosplenomegaly, lymphadenopathy and epididymo orchitis, but was ruled out by serology and culture. He tested positive for Scrub typhus antibodies (Elisa). He was diagnosed to have fever, thrombocytopenia with epididymo orchitis secondary to Scrub typhus infection. He was started on Doxycycline in the dose of 100mg bd for seven days. He responded in 24hours with defervescence and remained afebrile thereafter. His liver function

Table 1: Showing liver function tests

Liver function test	Day 1	Day 3	Day 10
Total bilirubin(mg/dl)	5.8	3.4	0.9
Direct bilirubin(mg/dl)	2.9	2.1	0.3
SGOT (IU/L)	290	240	29
SGPT (IU/L)	420	190	39

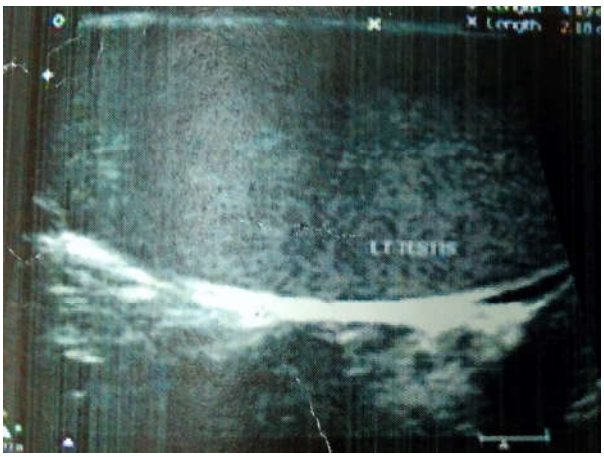

Fig. 1: Left testes with altered echo texture

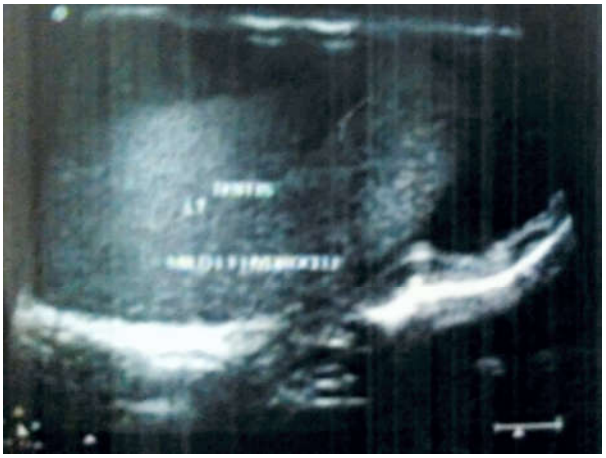

Fig. 2: Mild enlargement of left epididymis with hydrocele

and platelet counts improved gradually and liver function tests reached normal values by day 10 of admission. Repeat scrotal scan was normal. He remained asymptomatic till 2 months of follow up after discharge.

Discussion

Scrub typhus an acute febrile illness is acquired by the bite of the larval form of the Trombiculid mite (chiggers) which transmits the etiological agent Orientia tsutsugamushi, an obligate gram negative intracellular bacterium. Scrub typhus is widely prevalent in rural India [4]. The disease presents in the first week of illness with headache, malaise, nausea, vomiting, mimicking Typhoid fever, Malaria,

Viral hepatitis and Dengue fever, the common causes of febrile illness in tropical countries.

The presence of eschar and lymphadenopathy guides the diagnosis but eschar is present only in 7-97% of patients [5]. Absence of eschar has been attributed to the genotype of the organism and low levels of tsutsugamushi [6,7].

This patient hails from a nearby village and presented with undiagnosed fever of two weeks duration. After ruling out common causes of tropical fever, he received a course of diethyl carbamazine citrate as he presented with epididymo orchitis. Most common causes of epididymo orchitis are Filariasis, Chlamydia trachomatis, Nesseria gonorrhea, Tuberculosis, and Brucellosis [8,9]. In this patient, due to his occupational exposure, Brucellosis was a high possibility which was ruled out by appropriate tests. Scrub typhus was considered in view of its high prevalence in this region [10,11] and diagnosis was based on a history of fever of more than five days, with epididymo orchitis, regional inguinal adenopathy, abnormal liver function tests with elevated SGOT, SGPT, positive serology for Scrub typhus and dramatic response to doxycycline in twenty four hours. Scrub typhus infection manifesting as epididymo orchitis, has been reported earlier only in children from India [12,13].Uncommon presentation of scrub typhus include pneumonitis, ARDS, myocarditis, encephalitis, pancreatitis, gastrointestinal bleeding, acute reversible hearing impairment [14] and as epididymo orchitis as a very rare complication.

Conclusion

The case highlights the variable presentation of Scrub typhus including a very rare complication of epididymo -orchitis in an adult and the need for a high index of clinical suspicion in all cases of acute febrile illness in endemic areas.

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