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Case Report

Tropical Fever with Rash

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Abstract

Scrub typhus is a not a common cause of tropical fever in India. If not detected or suspected early, it may lead to death. Scrub typhus causes many complications including multi-organ failure. A rash is often seen during the initial phase of the illness, which should guide the clinician to look for Scrub typhus. This case highlights the importance of the rash in Scrub typhus, which could guide the clinician to get the correct diagnosis.

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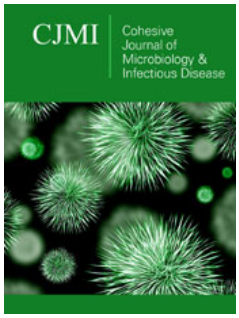

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Case Report

A 36-year-old gentleman presented to the emergency department of the hospital with high fever, lethargy and generally unwell. He had no significant past medical history and was a farmer by profession. On admission he was alert, conscious. Physical examination revealed he was tachycardiac with a temperature of 103-degree Fahrenheit. His blood pressure was low and recorded as 100/70. He was slightly icteric, with a palpable liver of 3cm and a few palpable non tender lymph nodes. Blood tests result showed white cell count of 6000 per cubic millimeter or 6*109 cells/litre. Liver function tests were slightly abnormal with Bilirubin of 52 micromoles/litre and Alanine transaminase (ALT) OF 75iu/L. Blood for Malarial parasites and Dengue NS1 antigen was negative. Urine dipstick showed no blood or white cells, and Urine culture was not done as a result of negative urine dipstick report. Chest x ray was normal study. An Ultrasound scan of abdomen was performed to look for any localized abscess and it showed enlarged liver with normal parenchymal echotexture. There was a continuous fever with the baseline remaining above 1000 Fahrenheit and clinically a diagnosis of Enteric fever was made. Patient was started treatment with intravenous Ceftriaxone 1gram twice daily. On the 3rd day of treatment, a rash was noted in the abdomen, which was slightly erythematous and thought to be drug rash secondary to Ceftriaxone. However, the rash was non spreading and there were no signs of anaphylaxis. Temperature spikes were getting worse and the color of the rash started fading. Since the temperature was ranging around 1020 Fahrenheit, further blood test such as Scrub typhus Ig M antibody and Leptospiral antigen were sent to the lab. The Scrub typhus IgM antibody was positive with a high titer and was four-fold raised. The Leptospiral antigen was negative. And a diagnosis of Scrub typhus was made. Patient was started on Doxycycline 100 mg twice daily for 10 days. The patient recovered within the next few days and was discharged home (Figure 1).

Figure 1:

Discussion

In India one of the leading causes of ICU admission is tropical fever with complications such as single or multi organ failure [1]. Some of the common tropical fevers with complications in India are Malaria, Dengue and Enteric fever [2]. Leptospiral disease, Lyme disease and Scrub typhus are less commonly encountered therefore often missed and not thought about. Scrub typhus is commonly caused by intracellular parasite Orienta Tsutsugamushi, belonging to Rickettsia group. Arthropod Trombiculid mite is a vector for this disease. It is a common seen in Asia- pacific region and much less common in India. Scrub typhus presents with a fever, myalgia, headache and flu like symptoms approximately 5 to 14 days after being bitten by infected Trombiculid mite. An eschar is formed at the site of the bite and is a classical feature of the disease as shown in the figure. It is often missed or ignored by the patient. It begins as a papule, which ulcerates later forming a dark scar and is usually seen in the anterior part of the body [3]. It is complicated by organ failure such as acute liver failure, acute kidney injury and acute lung injury and related complications. Patient may also have signs of CNS infection such as meningitis and encephalitis. The mortality rate reaches 60% to 70% if early diagnosis and appropriate treatment is not initiated [4]. Diagnostic tests for Scrub typhus include indirect immunofluorescence tests, indirect immune- peroxidase assay, ELISA tests, Immunochromatographic test. Immunofluorescence tests and ELISA tests are quick with high specificity (84%-100%) and sensitivity (70%-100%). Cell culture and antigen detection has a high specificity of 100% with a low sensitivity of 50%. The treatment of Scrub typhus is Doxycycline for 10 days as an alternate Azithromycin can be used.

Conclusion

Scrub typhus is one of the common causes of multiorgan failure and ICU admission in India. If not detected early, it can lead to complications with increased mortality and morbidity.

References

1. Singh S, Rungta N (2017) Tropical fever in Indian Intensive care units: A prospective multi-centre study. Indian J Crit Care 21(12): 811-818.
2. Divatia JV (2016) The Indian intensive care case mix and practice patterns study. Indian J Crit Care Med 20(4): 216-225.
3. Kim DM, Won KJ, Park CY (2007) Distribution of eschars on the body of Scrub typhus patients: a prospective study. American J Trop Med Hyg 76(5): 806-809.
4. Taylor A, Paris D (2015) A systematic review of mortality from untreated Scrub typhus. J Pub Libr Sci 9(8): e0003971.