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Case Report - A Non Healing Ulcer Presenting as Manifestation of Rickettsial Fever with Big Eschar

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Abstract

Rickettsia are a rather diverse collection of organisms with several differences; this prohibits their description as a single homogenous group. The rickettsial diseases were believed to have disappeared from India are reemerging and they are reported from Maharashtra, Tamil nadu, Karnataka, Kerala, Jammu and Kashmir, Uttaranchal, Himachal Pradesh, Rajasthan, Assam and West Bengal. In view of low index of suspicion, nonspecific signs and symptoms, and absence of widely available sensitive and specific diagnosic test, these infections are notoriously difficult to diagnose. Knowledge of geographical distribution, evidence of exposure to vector, clinical features like fever, rash, eschar, headache and myalgia alongwith high index of suspicion are crucial factors for early diagnosis. We hereby report a patient who came to the PICU of our hospital.

Keywords: Rickettsia; Eschar; Weil-Felix Test; Antimicrobials.

Introduction

Rickettsia are a rather diverse collection of organisms with several differences; this prohibits their description as a single homogenous group [1]. Treatment of rickettsial infections is easy, inexpensive and mostly successful. However, these diseases often remain undiagnosed and the lack of treatment leads to fatality rates as high as 35% [3]. Signs and symptoms of these infections are generally nonspecific such as fever, headache, myalgia, and rash, and laboratory tests do not reveal anything until about two weeks after the onset of the disease.

Knowledge of geographical distribution, evidence of exposure to vector, clinical features including eschar(s), and a high index of suspicion are important for early diagnoses [4].

Case Report

A 12 years old female child 1st product of 2nd degree consanguineous marriage came to our PICU with complaints of fever since 14 days, generalized weakness since 3 days and nausea vomiting since 2 days and cough since 2 days. She had history of fever since 3 months on and off and also developed rash all over the lower limb, which was evanescent, that use to increase with fever and decrease in absence of fever. She had also developed a non-healing ulcer over dorsum of left foot since 2 months gradually increasing in size. She also has history of contact with animals. On arrival to our hospital the patient was conscious, alert and vitally stable with blood pressure of 122/80mm of Hg. On Per abdominal examination she had mild tenderness in the right hypochondrium with hepatomegaly. On local examination she had abundant petichae all over her lower limb and a huge eschar over dorsum of Left foot and a small eschar over dorsum of right foot. No lymphadenopathy and no neurological signs were present.

Laboratory investigations showed leukocytosis with eosinophilic count and thrombocytopenia

with Hb:11.2, WBC:25200, N-35, L-25,E-35, M-5, Plt:23000. CRP-24 (positive), ESR-32, SGPT-67, SGOT-49, Alk P-243. Urine routine was WNL. Widal, Dengue done was negative. RFT was WNL. Weil- Felix was done in view of persistent thrombocytopenia which showed OX19- 1:80, OX2- 1:160, OXK- 1:320 positive.

Immunofluorescence test was done which was positive.

Patient was treated with IV antimicrobials, IV Chloramphenicol, Oral Doxycycline and other symptomatic management was given. Skin opinion was taken for eschar, patient was advised regular scrubbing of the wound and local application of ointment. Patient was regularly followed up. On follow up the small eschar had disappeared and the big eschar showed improvement. Patient gradually improved.

Fig. 1: On admission - Big Eschar With bilateral abundant petechiae

Fig. 2: Big Eschar

Fig. 3: Healing Big Eschar

Fig. 4: On Follow Up

Discussion

Rickettsial diseases are considered some of the most covert emerging and re-emerging diseases and are being increasingly recognized in India. Rickettsial diseases are classically divided into the typhus group and spotted fever group (SFG) [6].

Scrub typhus is the commonest occurring rickettsial infection in India

Clinical presentation is non specific. Patients present with history of fever, malaise, headache, nausea and vomiting after 2-5 days of insect bite. Rash and eschar are most common characteristic features of the infection; however, they may not be found always [7].

An eschar at the site of chigger bite can be seen in early disease and is a useful diagnostic clue in scrub typhus with a varying frequency of 7-97 percent [9]. Eschar is a pathognomonic sign of scrub typhus. Usually a single eschar is found on the neck, axillae, chest, abdomen and groin, but multiple eschars have also been documented [10].

Our patient presented with fever, malaise and multiple eschars biggest being on the dorsum of the left foot.

Although rickettsiae can be isolated from or detected in clinical specimens, serological tests still remain the main tool for the diagnosis. Microimmunofluorescence, latex agglutination, indirect hemagglutination, immunoperoxidase assay, and enzyme-linked immunosorbent assay are various serological tests available. Immunofluorescence assay (IFA) is the "gold standard" technique and is used as a reference technique in most laboratories [5].

The Weil-Felix test is used for rapid diagnosis of acute cases of infection in prevalence areas.

Doxycycline (200mg once a day for 7 days) or Tetracycline (25-30 mg/kg body weight/day in divided doses every 6 hours) is the drug of choice. Chloramphenicol (50 mg/kg/day in divided doses every 6 hours.) is an effective alternative. In case of resistance of Doxycycline, Azithromycin (500 OD) or Clarithromycin (500 mg BD) may be used and may also become the drug of choice in children, pregnant women [8].

Conclusion

Although Rickettsial fever is sporadically reported but it is now frequently diagnosed in western and southern India. Rickettsia infections should be kept as a differential diagnosis of fever of unknown origin. Rickettsial Fever clinically mimics other infections like dengue, chikungunya, malaria and typhoid fever. We are presenting this case because the patient presented with a non healing ulcer with fever and rash and came from a rural area and turned out to be Rickettsial Fever with Eschar. Early diagnosis and Management can provide better prognosis and prevent mortality.

References

1. Brooks GF, Carroll KC, Butel JS, Morse SA, Mietzner TA. Jawetz, Melnick, and Adelberg's Medical Microbiology. China: McGraw-Hill Medical; 2007. p.349-58.
2. Kelly DJ, Richards AL, Temenak J, Strickman D, Dasch GA. The past and present threat of rickettsial diseases to military medicine and international public health. Clin Infect Dis 2002;34(Supp4):S145-69.
3. Batra H. Spotted fevers and typhus fever in Tamil Nadu. Indian J Med Res 2007;126:101-3.
4. Rathi N, Rathi A. Rickettsial infections: Indian perspective. Indian pediatr 2010;47:157-64.
5. Kovacova E, Kazar J. Rickttsial diseases and their serological diagnosis. Clin Lab. 2000;46:239-45.
6. Available from: http://wwwnc.cdc.gov/travel/yellowbook/2014/ chapter-3-infectious-diseases-related-to-travel/rickettsial-spotted - and-typhus-fevers-and-related-infections-anaplasmosis-andehrlichiosis, accessed on August 21, 2014.
7. Mathai E, Rolain JM, Verghese GM, Abraham OC, Mathai D, Mathai M. Outbreak of scrub typhus in southern India during the cooler months. Ann NY Acad Sci. 2003;990:359-64.
8. Poomalar GK, Rekha R. Scrub typhus in pregnancy. J Clin Diagnostic Res. 2014;8:1-3.
9. Paris DH, Shelite TR, Day NP, Walker DH. Unresolved problems related to scrub typhus: A seriously neglected life-threatening disease. Am J Trop Med Hyg. 2013;89:301–7.
10. Kaushik RM, Kaushik R, Bhargava A. Multiple eschars in scrub typhus. Trop Med Health. 2014;42:65–6.