#### Picture in Tropical Medicine and Health

# Multiple Eschars in Scrub Typhus

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**Abstract:** An eschar is highly suggestive of scrub typhus in a case of fever. Multiple eschars are rare in scrub typhus. We present a picture of multiple eschars in scrub typhus.

Key words: multiple eschars, scrub typhus, India

#### MULTIPLE ESCHARS IN SCRUB TYPHUS

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Scrub typhus is an acute infectious disease in which eschar is observed as a pathognomonic sign. Eschars have been reported in 7 to 97% of scrub typhus cases [1, 2] and are usually solitary. Multiple eschars have been reported in 0.6 to 2.2% of patients with confirmed scrub typhus [3–5].

A 47-year-old housewife from a rural area presented with high grade fever associated with chills, headache and myalgia for seven days, breathlessness for two days and altered sensorium for one day. There was a history of exposure to bushy vegetation. Upon examination, the patient was stuporous and showed tachycardia, hypotension and hypoxemia. Multiple (five) eschars were seen over the antero-lateral aspect of the upper third of the right thigh and lower abdomen (Figs. 1 & 2, both taken on the same day). There were coarse crackles bilaterally, hepatomegaly, and nuchal rigidity. Investigations revealed leuco-

Fig. 1. Multiple eschars in a case of scrub typhus

cytosis, thrombocytopenia and abnormal liver and renal function test results. ELISA for IgM antibodies to Orientia tsutsugamushi (InBios, USA) was positive. Chest x-ray showed bilateral lower zone consolidation. The PaO2:FiO2 ratio indicated acute respiratory distress syndrome (ARDS). Cerebrospinal fluid (CSF) examination revealed mononuclear pleocytosis, raised protein, normal CSF glucose, and negative Gram and acid fast stain. Blood, urine and CSF cultures were sterile.

In view of the compatible clinical features, multiple eschars and positive serology for scrub typhus, the patient was given oral doxycycline, parenteral chloramphenicol, meropenem and other supportive treatment for scrub typhus meningoencephalitis featuring multi-organ dysfunction syndrome with ARDS, but she succumbed to the

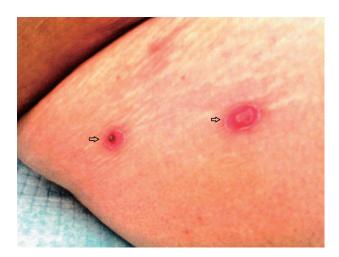


Fig. 2. Magnified view of eschars in different phases of development

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disease on the 4th day of hospitalization.

## REFERENCES

- Ogawa M, Hagiwara T, Kishimoto T, Shiga S, Yoshida Y, Furuya Y, Kaiho I, Ito T, Nemoto H, Yamamoto N, Masukawa K. Scrub typhus in Japan: epidemiology and clinical features of cases reported in 1998. Am J Trop Med Hyg 2002; 67: 162–165.
- Silpapojakul K, Varachit B, Silpapojakul K. Paediatric scrub typhus in Thailand: a study of 73 confirmed cases. Trans R Soc Trop Med Hyg 2004; 98: 354–359.
- 3. Kim DM, Won KJ, Park CY, Yu KD, Kim HS, Yang TY, Lee JH, Kim HK, Song HJ, Lee SH, Shin H. Distribution of eschars on the body of scrub typhus patients: a prospective study. Am J Trop Med Hyg 2007; 76: 806–809.
- 4. Kundavaram AP, Jonathan AJ, Nathaniel SD, Varghese GM. Eschar in scrub typhus: a valuable clue to the diagnosis. J Postgrad Med 2013; 59: 177–178.
- Ogawa M, Hagiwara T, Kishimoto T, Shiga S, Yoshida Y, Furuya Y, Kaiho I, Ito T, Nemoto H, Yamamoto N, Masukawa K. Tsutsugamushi disease (scrub typhus) in Japan: Clinical features. Kansenshogaku Zasshi 2001; 75: 359–364.