

“ESCHAR” – A Diagnostic Clue to Scrub Typhus

Girija Subramanian¹, Gopal Rangasamy², Saleem Mohamed^{3,*}

¹Professor, Department of Medicine, ²Professor, ³Associate Professor, Department of Microbiology, Sri Manakula Vinayagar Medical College & Hospital, Puducherry, India

***Corresponding Author:**

Email: pondysaleem@gmail.com

Scrub typhus is mite borne acute febrile illness caused by *Orientia tsutsugamushi*.

Scrub typhus is a reemerging rickettsial disease reported from several parts of India and neighboring countries during the past one decade. The clinical signs and symptoms are largely nonspecific and if not promptly diagnosed and treated carry a high mortality¹. The infection is transmitted through the bite of the trombiculid mite which may be seen as ‘Eschar’ which may be 5 to 20 mm in diameter and is considered as an important clue to the diagnosis of scrub typhus in a patient presenting with fever, head ache and regional lymphadenopathy. A typical eschar starts as a papule at the site of the bite followed by a blistered ulcer and this is then covered with a black crust. The border of the crust is surrounded by reddish erythema. A typical eschar is formed at the time when symptoms are manifest².

Eschar can be used for detection and genetic characterization of *O.tsutsugamushi* during the convalescent phase³. Immunohistochemical staining of skin biopsy specimens from the eschars, is sensitive and specific for diagnosis of scrub typhus⁴.



Eschar - over the left breast

Eschar over the right lower eye lid



Eschar over the left groin

Eschar over the elbow

REFERENCES

1. Mathai E, Lloyd G, Cherian T, Abraham OC, Cherian AM. Serological evidence for the continued presence of human rickettsioses in southern India. *Ann Trop. Med Parasitol*, 2001;35:395-8.
2. Berman SJ, Kundin WD. Scrub typhus in South Vietnam; a study of 87 cases. *Ann. Inter. Med.* 1973;79:26-30.
3. Lics YX, Cao we, Gooy, Zhang JL, Yang ZQ, Z Hato Zt ard Foley JE, *Orientia tsutsugamushi* in eschar from scrub typhus patients. *Emerging infectious diseases* 2006;12:1109.
4. Kim DM, Park CJ, Lim Sc, Park KH, Jangwj, and Lee SH. Diagnosis of scrub typhus by immunohistochemical staining of *orientia tsutsugamushi* in cutaneous lesions, *Ann J Clin. Pathol* 2008; 130:543-51.