

Scrub Typhus: A Mini Review on the Rickettsial Infection

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Abstract: *Scrub typhus is caused by Orientia tsutsugamushi, a Gram-negative α -proteobacterium belonging to the family Rickettsiaceae. It was first isolated and identified in 1930 in Japan.*

Keywords: *Rickettsia, Scrub typhus,*

INTRODUCTION

Some species of trombiculid mites ("chiggers", particularly *Leptotrombidium deliense*) are responsible for the causation of the disease. These mites are found in areas of heavy scrub vegetation. The bite of this mite produces a characteristic black eschar which is helpful in diagnosis.^[1]

DISTRIBUTION

The disease is prevalent in parts of northern Japan, eastern Russia, northern Australia and in Pakistan and Afghanistan in the west.^[2,3]

TRANSMISSION AND EPIDEMIOLOGY

The precise incidence of the disease is unknown, as diagnostic facilities are not available in much of its large native range which spans vast regions of equatorial jungle to the subtropics. In rural Thailand and Laos, murine and scrub typhus account for around a quarter of all adults presenting to hospital with fever and negative blood cultures. The incidence in Japan has fallen over the past few decades, probably due to land development driving decreasing exposure, and many prefectures report fewer than 50 cases per year.^[4-6]

Mostly the females are more commonly affected in Korea. This is attributed to the more exposure of the women to vegetation, cultivation and gardening. In West Bengal, in northern areas around Darjeeling the incidences occur frequently.^[7-9]

LABORATORY DIAGNOSIS

The diagnosis of scrub typhus employs various serological techniques viz., Weil-Felix test, indirect immunofluorescence (gold standard test) and indirect immunoperoxidase test.

Other proven methods of diagnosis include PCR and culturing in which the results are not often in concurrence to serological testing.^[10,11]

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