

## LETTER TO EDITOR (VIEWERS CHOICE)

### CLINICAL PROFILE OF SCRUB TYPHUS IN PEDIATRIC POPULATION –A CASE SERIES

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Scrub typhus, transmitted by the bite of larval trombiculid mite is a common and an underdiagnosed cause of febrile illness in south Asia, caused by infection with *Orientia tsutsugamushi*. Outbreaks are reported during cooler months of year. (1) While visiting forests infection is transmitted from rodents to human by the bite of larval stage *Leptotrombidium* mites (chiggers). Inoculation of the organism at a cutaneous mite bite site causes localized pathological skin reaction termed an eschar. The characteristic rash and eschar may not be always present. The common symptoms described include fever, severe headache, myalgia, dry cough and gastrointestinal disturbances. (2) However, combination of systems involved can vary. Common signs described from children include eschar at the site of bite, maculopapular rash, lymphadenopathy and hepatosplenomegaly. In cases of fever of unknown origin, once the common causes like malaria, typhoid, dengue, leptospirosis, septicemia are ruled out and after one course of anti-malarials, scrub typhus has to be suspected, even though there is no history of visiting forests. Routine laboratory tests may reveal anemia

and thrombocytopenia; elevated transaminases and hypoalbuminemia can be used as pointer to investigate for rickettsial diseases. An early diagnosis and treatment can prevent complications. In resource poor countries, initial Weil Felix test followed by ELISA (4) based test for *O. tsutsugamushi* can make proper diagnosis. Although indirect immunofluorescence assay (IFA) or Indirect Immuno-peroxidase test (IIP) and polymerase chain reaction (PCR) based tests are considered gold standard in confirmation of rickettsial diseases (5), they can only be performed in sophisticated laboratories

In our series, detailed results of 5 cases are shown in table 1. All had anemia and eschar, 2 children had mild hepatosplenomegaly and 2 had thrombocytopenia. All were positive for IgM for scrub typhus. The 8 year old child was given doxycycline and younger ones were given azithromycin. In all, fever subsided in 2 days and all recovered. Out of five cases, 3 children had history of travel to hilly area which predisposes them to chigger bite.

**Table 1: Clinical Profile of Pediatric Scrub Typhus**

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>	<b>Case 4</b>	<b>Case 5</b>
Age/Sex	2years/Male	1 ½ yrs/ Male	2 ¼ years /Male	7 months/ Male	8years/Male
Chief complaints	Fever -5 days, Vomiting	Fever-1 week	Fever-3days, Vomiting	Fever-4days	Fever-6 days, vomiting
History of insect bite	No	No	No	No	No
Pallor	yes	yes	No	yes	yes
Edema	No	No	No	No	No
Eschar	Over right nape of neck	Over right shoulder	Right axilla	Back of right thigh	Left axilla
Hepatomegaly	yes	yes	yes	yes	yes
Splenomegaly	yes	yes	No	yes	No
Respiratory symptoms	Conducted sounds	Wheeze	NVBS	NVBS	NVBS
CNS symptoms	No	yes	No	No	No
Hemoglobin (gm/dl)	9.6	8.9	10.7	8.1	8.2
Platelet (cells/cumm)	1,81,000	2,03,000	1,57,000	1,36,000	1,01,000
IgM for scrub typhus	Reactive	Reactive	Reactive	Reactive	Reactive
Treatment/ Outcome	azithromycin	azithromycin	azithromycin	azithromycin	doxycycline

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