

LETTER TO EDITOR (VIEWERS CHOICE)

PANCYTOPENIA IN SCRUB TYPHUS

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Two siblings, 13 years female and 11 year male child presented with high grade fever, headache, limb and abdominal pain for a week. Examination revealed generalized lymphadenopathy, splenomegaly and hepatomegaly. However there was no rash or eschar present. Investigations are shown in following table 1. Peripheral smear for malaria, Widal test were negative in both patients and blood culture was sterile. Renal and liver function tests were normal. Scrub typhus IgM Elisa was positive in the girl but negative in the boy. Since the other sibling also had similar clinical features and even though IgM ELISA was negative, both were treated with doxycycline and improvement to hematological parameters was seen in 7 days. Defervescence of fever occurred on third day in both the patients.

Scrub typhus is a zoonosis caused by obligate intracellular bacterium of family rickettsiaceae, the *Orientia tsutsugamushi* transmitted through the bite of larval mites (chiggers). One-fourth to one-half cases of scrub typhus occurs in children. Symptoms begin insidiously with a low grade fever, maculopapular generalized rash involving palm and soles, eschar, headache, chills and anorexia, progressing to an unremitting fever accompanied by a severe headache, generalised lymphadenopathy, hepatosplenomegaly and rarely leading to multiorgan dysfunction. Among various serological tests available Weil Felix and IgM ELISA are commonly used tests in developing countries. (1) Scrub typhus is often associated with various hematological abnormalities such as leucocytosis, anemia and thrombocytopenia. Pancytopenia is a rare occurrence in scrub typhus and is often related to hemophagocytosis. (2-5) Early chemotherapy for scrub typhus associated with pancytopenia usually leads to uneventful recovery, but prognosis is very poor if not treated. (4,5)

To conclude scrub typhus can presents as acute febrile illness of mild to moderate illness with pancytopenia in endemic areas and empirical therapy for scrub typhus can be considered in patients with

clinically features suggesstive of scrub typhus where specific diagnostic for scrub typhus are not available.

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Table 1: Investigations of both the patients

Investigations	Patient 1			Patient 2		
	Admission	Day 3	Day 7	Admission	Day 3	Day 7
White cell count (cells/cumm)	1490	1230	2270	1180	1260	2860
Polymorphs (%)	68.7	63.8	60.7	36	63.8	39.9
Lymphocytes (%)	21.6	29.5	34.3	62.4	34.1	58.5
Hemoglobin (gm/dl)	8.3	6.9	7.7	7.5	7.9	8.3
Hematocrit (%)	25.5	22.2	24.8	23.3	25.7	27.4
Platelet Counts (cells/cumm)	76,000	52,000	2,11,000	85,000	80,000	3,14,000
ESR (mm at end of 1 hour)	45	43		35		
Sodium (meq/l)	125	130		128		135
IgM ELISA Scrub Typhus	POSITIVE			NEGATIVE		