



“Clinical Profile of Scrub Typhus in Paediatric Age Group in Tertiary Care Hospital, Odisha”

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BACKGROUND:Scrub Typhus is a rickettsial disease caused by bite of an infected trombiculid mite. The agent responsible for Scrub Typhus in India is *Orientia tsutsugamushi*. The clinical symptoms vary from mild febrile episode to multiorgan failure.

OBJECTIVE:To study the clinical profile and laboratory parameter of diagnosed scrub typhus cases and to evaluate its outcome.

METHOD:This study was conducted in paediatric population,1 month to 15 years age group admitted in paediatric ward at Hitech Medical College and Hospital,Bhubaneswar.

Study Design: Prospective cohort study was conducted during the study period from 1st Sept-2020 to 30th Sept-2022.

Statistical Analysis: Data regarding investigations & clinical features were analysed in SPSS software.

RESULT: Out of 420 cases (admitted with fever >5 days), 84 cases were IgM positive. 46 male and 58 female were included with mean age 5.25 years .Fever was present in all cases(100%) with eschar in 78%(65) followed by abdominal symptoms in 61.9%, respiratory symptoms in 55.9%(47), hepatosplenomegaly in 47.6%(40),lymphadenopathy 6%(5),altered sensorium 3%(3),edema and puffiness 30%(25) and shock 10%(8).The laboratory parameters revealed leucocytosis 97%(82),raised CRP(Q) 82%(69), raised ESR in 95%(80), transaminitis 66%(55) & thrombocytopenia 43%(36).Response to Doxycycline was seen in 3+2 days.

CONCLUSION:Scrub typhus manifest in many ways like prolonged fever(>5 days), with predominantly eschar, abdominal symptoms&hepatosplenomegaly. Laboratory findings like leucocytosis, raised CRP(Q) and ESR, thrombocytopenia & transaminitis were observed. Early diagnosis and timely management with Doxycycline can assist in reducing mortality & morbidity.

KEYWORDS:Rickettsia, Eschar, Doxycycline & Transaminitis

I. INTRODUCTION: -

Scrub typhus is a mite borne infectious disease caused by *Orientia tsutsugamushi*, a gram negative coccobacillus that is antigenically distinct from the typhus group rickettsiae. Scrub typhus is endemic in India, Korea, China, Japan, Pakistan, Malaysia and Australia.Scrub typhus may begin insidiously with headache,anorexia and malaise, or start abruptly with chills and fever.As the illness evolves, most patients develop high grade fever,worsening of headache and myalgia. An eschar or rash develop in a subset of patients.The severity of disease can range from mild symptoms to multi-organ failure.Diagnostic methods for confirmation of *O. tsutsugamushi* infection include serology,pcr,biopsy and culture.The Indirect fluorescent antibody test remains the mainstay of serologic diagnosis

II. METHODOLOGY:-

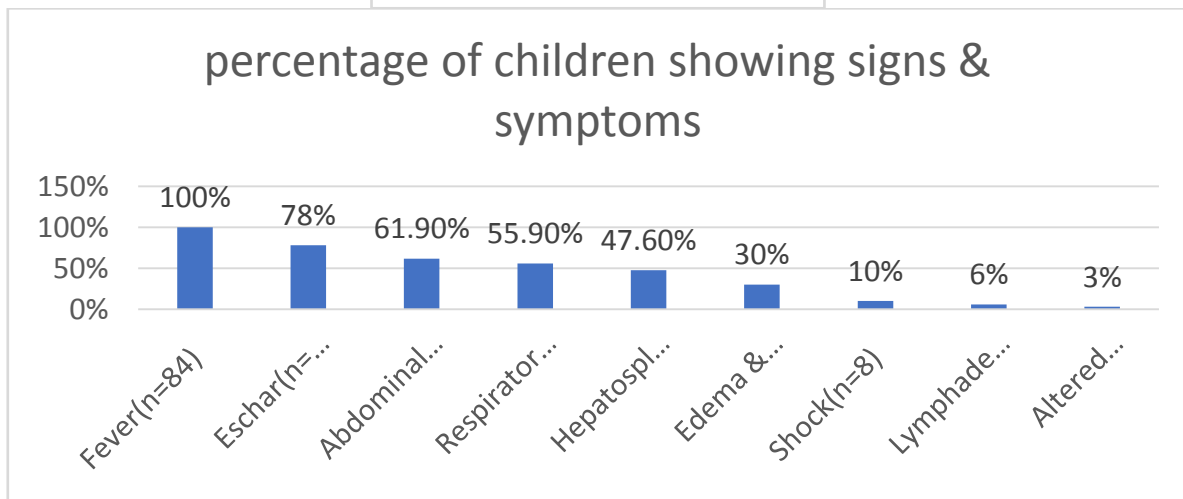
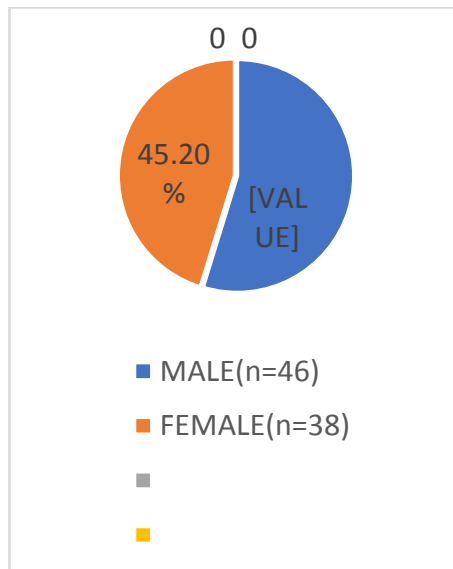
This study will be done at Hi-Tech Medical College and Hospital, Bhubaneswar. This study will cover children aged from 3 months to 15 years. Patient particulars like age, sex, address will be noted. A detailed history including age of onset fever,presence of maculopapular rash(eschar),pain abdomen . The course of the illness and history of any associated disorders will also be recorded. A thorough clinical examination including general condition of the child, presence of any eschar or hepatosplenomegaly along with respiratory and cardiovascular system examination will be done. CBC, LFT, ELISA(IgM) and card test FOR SCRUB TYPHUS TEST will be done in cases presenting with features of fever for more than 3 days,painabdomen,and eschar

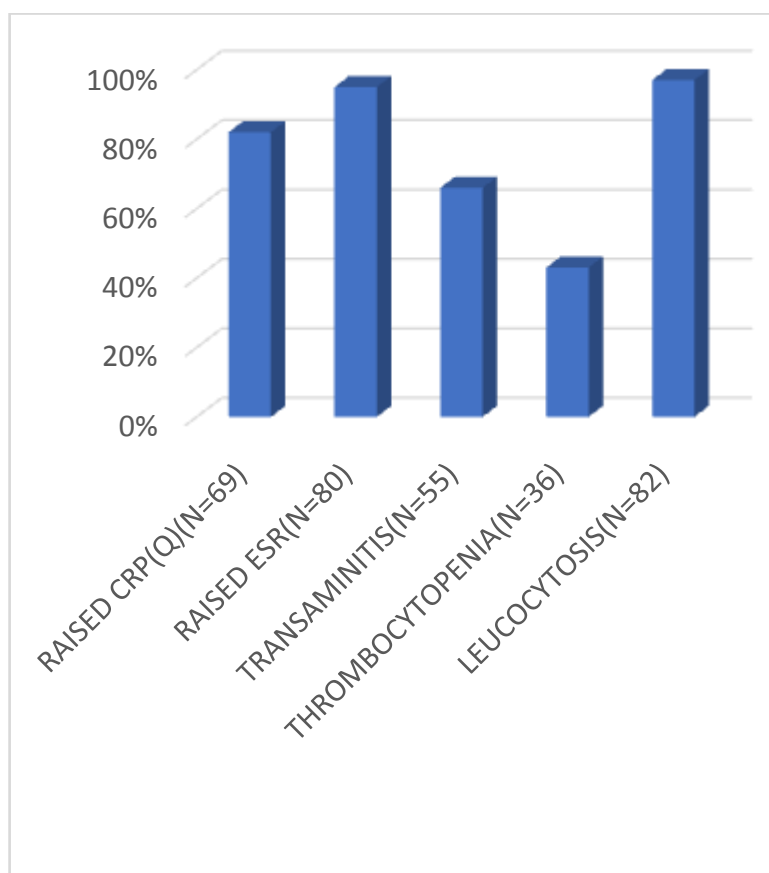
III. RESULT:

- Total number of cases included in our study was 84 .
- Our study showed male children outnumbering female children with ratio 1.2:1.



- Fever(100%) was the presenting complaint in all cases.
- Eschar which is the most pathognomonic sign was found in 78% cases out of which in one case we found double eschar in our study.
- Other presenting symptoms were abdominal pain(61.9%) , respiratory symptoms(55.9%), lymphadenopathy(6%), altered sensorium(3%) & shock(10%).
- Common examination finding were hepatosplenomegaly in 47.6%.
- On investigation ,predominantlyleukocytosis was seen in 97% followed by thrombocytopenia in 43%, raised CRP in 82% & transaminitis in 66%.
- Most common complication was shock.
- In 85.4%(71) cases fever subsided within 48 hours after giving doxycycline and 14.6% (12)after giving azithromycin.





IV. CONCLUSION:-

Scrub Typhus is a common re emerging disease in children. The months from September to December witnessed the maximum number of cases. High grade, intermittent fever lasting for more than 3 days was the most common presenting complaints in all cases along with maculopapular rash and clinical findings suggestive of multisystem involvement such as hepatitis, myocarditis or meningitis. Early diagnosis and empirical medical management based on high clinical suspicion while waiting for definitive serological report with oral Doxycycline may prevent complication and thereby reducing mortality. Scrub typhus is one of the causes of high morbidity in children in rainy season.

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