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A Study to Assess the observe for the seasonal variation in the scrub typhus cases in Selected areas of Indore

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Introduction

With its ambiguous clinical symptoms and absence of a definitive diagnostic technique, scrub typhus is commonly misdiagnosed. Fever, rash, and eschar are common symptoms that require test confirmation. Pneumonitis and/or ARDS should be considered differential diagnoses in patients with acute febrile sickness. A thorough search for eschar, especially in hidden areas, is helpful in diagnosis.

Eschar can be found in a small number of patients. The doctor should be informed of the limits of all currently available scrub typhus serological testing. Depending on the endemicster, a cutoff antibody titer of 1:10 to 1:400 is necessary for serological diagnosis. Scrub typhus is difficult to identify and monitor without modern diagnostic tools. Many serological approaches are unavailable or very expensive in India.

Between January 2016 and December 2018, our hospital received 1212 suspected scrub typhus cases. ELISA detected scrub typhus in 217 serum samples. These favourable cases led to the following observations:

Fever was the most common symptom, half of which was accompanied by chills and rigours, lasting an average of 8 days. Severe symptoms of smyalgia and dyspnea were also reported. Eschar was seen in 12 instances.

Scrub typhus can cause a generalised fever. From January 2016 to December 2018, we looked at 1212 possible Scrub typhus patients and discovered 217 with Weil Felix or ELISA positive results, around 18% of the overall. Scrub typhus caused 17.8% of acute undifferentiated fevers in Thailand. A similar finding was obtained in Delhi.

Fever was the most common clinical sign, lasting an average of eight days. Nausea, vomiting, myalgia, dyspnea, diarrhoea, reduced urine production, and nausea were also reported. During our investigation, we also found joint pain and constipation. Research from Chennai and Bangalore backed up these findings. The eschar-to-body ratio of scrub typhus patients varies widely. Researchers can impact the rate of eschar formation. An Iranian study discovered eschar in up to 81.05 percent of people.In Chennai, it was found in 12.9% of people, but in Bangalore it was found in 56%.

Previous research found eschars more frequently in fair-skinned Japanese youngsters than in dark-skinned Thai children.

Early eschar lesions in patients with dark skin were few and readily missed. The study found that just 8% of dark-skinned Thai kids had eschar. The eschar is easily missed during a typical medical examination, and the vector bite is painless.

Scrub typhus was found in about equal numbers of males and females in our study. Of the 1212 people evaluated, more were males than females. Other research revealed a mixed picture, with men outnumbering women. In Kerala, males made up 52% of the population and females 48%. A poll in Bangalore found that 61% of patients were female and 39% were male.

Our findings on scrub typhus age distribution matched another AIMS study.

Unlike the AIMS study, we found a high incidence in the 35–45 age group, with a decreasing incidence on either side.

Agricultural workers accounted for around 60% of cases, indicating a higher risk for them. Scrub typhus is most commonly found in people who work or play in scrubs, the study found. Researchers found a rise in instances from August to March, which coincided with the cooler months of the year. Scrub typhus epidemics are said to be more prevalent in the winter. The growth of secondary scrub vegetation (mite islands), which is the habitat of trombiculid mites, is generally apparent from August to early January. Scrub typhus is more common during the rainy season.

Having a second, possibly unrelated infection complicates the diagnosis of scrub typhus. Atypical clinical appearance or non-responsiveness to treatment should prompt a search for additional illnesses. In this study, 18 out of 1212 people had scrub typhus, while the others had various diseases. No studies on the prevalence of scrub typhus or its symptoms have been discovered in the literature.

Thrombocytopenia was found in 86 percent of scrub typhus and dengue fever patients, with platelet counts below 140,000/mm3 in 48.7 percent. This is in line with research that indicated dengue patients had lower platelet counts (1,40,000/mm3) than scrub typhus patients. Suputt et al. found thrombocytopenia in 30.8 percent of Thai scrub typhus patients. In our study, ELISA and Weil Felix results were compared to IFA results. At the 1:140 breakpoint, Weil Felix OX K had 50% sensitivity, 96% specificity, 81.2 percent positive predictive value, and 59.1 percent negative predictive value.Other studies conducted in Sri Lanka and Tamil Nadu found Weil Felix OX K to be 40–60% sensitive and 84.1 percent specific.ELISa with R56 Recombinant Antigen has a positive predictive value of 81.3 percent and a negative predictive value of 80.2 percent for R56 Recombinant Antigen.Using

the same assay and titer, another study found 92.5% sensitivity and 79% specificity. Scrub typhus was treated with doxycycline in 68.4% of patients, azithromycin in 8.5%, and no data was available for the other cases. An allergic patient was administered zithromax and rifampicin. Despite the increased response to the combined treatment, the patient eventually succumbed to new health issues.

Scrub typhus is a common disease in this area, so it should be investigated even if no eschar is present. Scrub typhus was shown to be common in acute undifferentiated fevers, accounting for 17% of all cases. Because this sickness is treatable, a precise and quick diagnosis is critical.

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