

Scrub typhus strikes: Menacing maternal and fetal health

Dear Editor,

In the February 2024 issue, the original article titled “Scrub typhus in pregnancy - A threat to maternal and fetal outcome” (13(2):p 764-767, February 2024) indeed provides a good insight regarding scrub typhus, a potentially fatal bacterial infection transmitted by chiggers, which has emerged as a formidable threat to maternal and fetal health. While this zoonotic disease is endemic in the Asia-Pacific region,^[1] its implications during pregnancy warrant urgent attention due to the heightened risks it poses to both the mother and the unborn child.

Pregnancy, a period characterized by physiological changes and immunomodulation, renders women more susceptible to infectious diseases. Scrub typhus, caused by the bacterium *Orientia tsutsugamushi*, can lead to severe complications if contracted during gestation. The manifestations of this disease in pregnant women are multifaceted, ranging from mild flu-like symptoms to life-threatening complications such as acute respiratory distress syndrome and multiorgan failure.^[2]

Of particular concern are the adverse effects of scrub typhus on fetal health. Vertical transmission of the bacterium from the mother to the fetus has been documented, leading to intrauterine growth restriction, preterm birth, stillbirth, and neonatal death.^[3] Moreover, the maternal immune response to the infection can trigger a cascade of inflammatory mediators, potentially jeopardizing placental function and fetal development.

The diagnostic challenges inherent in scrub typhus further exacerbate the management of the disease in pregnant women. Scrub typhus remains underdiagnosed in developing countries due to nonspecific clinical presentation, low knowledge, low suspicion among practitioners, and a lack of diagnostic capabilities. Clinical symptoms often overlap with other febrile illnesses, making accurate diagnosis a daunting task. In the study conducted by Bahadur *et al.*,^[4] none of the cases had the characteristic eschar. Serological tests, such as enzyme-linked immunosorbent assay and indirect immunofluorescence assay,^[5] are the mainstay of diagnosis but may yield false-negative results in the early stages of infection.

Treatment options for scrub typhus during pregnancy are limited and underscore the delicate balance between maternal health and

fetal safety. Antibiotics, such as doxycycline and azithromycin, are commonly used to combat infection,^[6] albeit with caution due to potential adverse effects on fetal bone and teeth development. The decision to initiate antibiotic therapy must be individualized, weighing the benefits of treatment against the risks to the fetus.

Preventive strategies play a pivotal role in mitigating the impact of scrub typhus on maternal and fetal outcomes. Public health interventions aimed at integrated vector control in endemic areas, such as the use of personal protective measures such as impregnation of clothes and blankets with benzyl-benzoate, insect repellants containing diethyltoluamide, environmental sanitation, and vegetation control measures are paramount in reducing the transmission of the disease. Moreover, raising awareness among healthcare providers about the clinical manifestations of scrub typhus in pregnancy is imperative for timely diagnosis and management.

Scrub typhus poses a significant threat to maternal and fetal well-being, necessitating a comprehensive approach to its prevention and management during pregnancy. Scientifically sound Information Education Communication and Behavior Change Communication activities as a part of health promotion against scrub typhus among people living in endemic areas, enhanced surveillance, early detection, prompt treatment, and appropriate preventive measures are essential to mitigate the adverse effects of this potentially devastating disease. By prioritizing maternal and fetal health, we can endeavor to safeguard the most vulnerable members of our society from the perils of scrub typhus.

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Conflicts of interest

There are no conflicts of interest.

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