Scrub typhus in Sri Lanka

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Rickettsial infections are prevalent worldwide but are seen mainly in the Asia Pacific region. These infections include epidemic typhus, endemic (murine) typhus, scrub typhus, and spotted fever group (SFG) rickettsial infections. The incidence of different rickettsial infections depends on the presence of specific vectors and their hosts. Scrub typhus is caused by *Orientia tsutsugamushi.* Transmission of scrub typhus requires the presence of trombiculid mites and rodents. Although scrub typhus is considered to be rural in their distribution, urbanization per se has not contributed to the decline of these infections.

Recent reports from South East Asia suggest the re-emergence of rickettsial infections including scrub typhus. In Sri Lanka, we have experienced several outbreaks of suspected scrub typhus infections over the past few years. These outbreaks were in addition to year-round sporadic cases (personal experience). Many of the sporadic cases were from urban or semi-urban areas. In both clinical practice and epidemiological surveys, the main difficulty in the diagnosis and management of rickettsial infections including scrub typhus is the lack of facilities for definitive diagnosis. The available test, the Weil Felix test, is now considered obsolete, but better diagnostic techniques, such as indirect fluorescent antibody assays (IFA), are only available at reference centres. The clinical diagnosis, and therefore notification, of scrub typhus is based mainly on clinical features, such as the presence of an eschar, lymphadenopathy and hepato-splenomegaly in a patient with high intermittent fever. This is further supported by rapid defeverance with anti-rickettsial medication such as tetracycline. Although clinical manifestations of rickettsial infections are well documented, recent studies from Asian countries have reported new complications, such as gastrointestinal manifestations and hepatitis syndromes. Awareness of the different clinical presentations of these infections may assist early diagnosis, especially in areas where no diagnostic facilities are available.

In the Western province, which represents the low country wet zone of Sri Lanka, the main rickettsial species causing infection seems to be *O. tsutsugamushi.* Delay in diagnosis seems to result in complications, such as pneumonitis, myocarditis, deafness or tinnitus, and encephalitis. All species seems to respond well to treatment with doxycycline.