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Researchers in India identify better drug treatment for Severe Scrub Typhus

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Scrub typhus is a major public health threat in India and other South Asian countries



An Indian multi-institute team of researchers has identified a better drug treatment for 'Severe Scrub Typhus,' a life-threatening infection caused by the bacteria, *Orientia tsutsugamushi.* This infection, which primarily affects rodents, is

transmitted to humans (zoonoses) by the larvae of trombiculid mites.

The researchers found that a ‘Combination antibiotic treatment’ (using a combination of drugs) is more effective for treating severe scrub typhus than single-drug therapies.

According to the study, when both azithromycin and doxycycline were administered together to patients with severe scrub typhus, the bacteria were cleared away quicker and patients improved faster.

This could be because doxycycline and azithromycin stop the bacteria from producing proteins through different, but complimentary, mechanisms. The combination of the two drugs may have result in a more complete blockade of protein synthesis and consequently reduced bacterial growth and multiplication. As combination therapy quickly controlled bacterial growth within the first week of infection, severe disease may have been prevented and resolution of symptoms might have quickened.

Prof. George M Varghese, an infectious diseases physician and Researcher from Christian Medical College in Vellore, Tamil Nadu, and the INTREST trial investigators conducted a multi-centric, randomised controlled trial funded by the DBT/Wellcome India Alliance to identify the best treatment option for patients with severe scrub typhus.

The collaborating institutions included the Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, Indira Gandhi Medical College & Hospital (IGMC) Shimla, Pandit Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences, Rohtak, Jawaharlal Institute of Postgraduate Medical Education & Research (JIPMER), Puducherry, Christian Medical College, Vellore, SVIMS Tirupati and KMC Manipal.