Levofloxacin versus tetracycline antibiotics for the treatment of scrub typhus.

Tsai CC, Lay CJ, Wang CL, Ho YH, Wang LS, Chen LK.

BACKGROUND: Scrub typhus is an important febrile disease in Southeast Asia and is caused by Orientia tsutsugamushi. Fluoroquinolones have proved to be effective for scrub typhus in an animal model. However, it is unclear whether they are also effective clinically.

METHODS: We retrospectively reviewed the hospital-based medical records of patients diagnosed to have scrub typhus by an indirect immunofluorescence antibody assay or PCR at a large referral hospital in Taiwan for a 6-year period (2001-2007). To determine the efficacy of levofloxacin for the treatment of scrub typhus, we divided the patients into a levofloxacin-treated group and a tetracycline antibiotics-treated group.

RESULTS: Out of 132 patients with scrub typhus, 71 initially received levofloxacin and 61 initially received tetracycline antibiotics. There was no statistically significant difference in the effective rate between the two groups (91.5% and 95.1% cured, respectively; p=0.648). The time to defervescence in the levofloxacin-treated group was longer than in the other group (49+/−41.1 and 24+/−19.6 hours, respectively; p=0.001). In the patients with higher APACHE II scores, higher mortality was found in the levofloxacin-treated group (44.4% and 0%; p=0.033).

CONCLUSIONS: Levofloxacin is effective in patients with scrub typhus, but has a longer time to defervescence compared with tetracycline antibiotics. When levofloxacin is used for severe scrub typhus, higher mortality may be attributed to the longer time to defervescence.

PMID: 19501007 [PubMed - as supplied by publisher]