

Publication

A prospective, open-label, randomized trial of doxycycline versus azithromycin for the treatment of uncomplicated murine typhus

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 4499537

Author(s) Newton, Paul N.; Keolouanghot, Valy; Lee, Sue J.; Choumlivong, Khamla; Sisouphone, Siho; Choumlivong, Khamloune; Vongsouvath, Manivanh; Mayxay, Mayfong; Chansamouth, Vilada; Davong, Viengmon; Phommasone, Koukeo; Sirisouk, Joy; Blacksell, Stuart D.; Nawtaisong, Prukha; Moore, Catrin E.; Castonguay-Vanier, Josée; Dittrich, Sabine; Rattanaovong, Sayaphet; Chang, Ko; Darasavath, Chirapha; Rattanaovong, Oudayvone; Paris, Daniel H.; Phetsouvanh, Rattanaphone

Author(s) at UniBasel [Paris, Daniel Henry](#) ;

Year 2019

Title A prospective, open-label, randomized trial of doxycycline versus azithromycin for the treatment of uncomplicated murine typhus

Journal Clinical Infectious Diseases

Volume 68

Number 5

Pages / Article-Number 738-747

Murine typhus, or infection with *Rickettsia typhi*, is a global but neglected disease without randomized clinical trials to guide antibiotic therapy.; A prospective, open, randomized trial was conducted in non-pregnant, consenting inpatient adults with rapid diagnostic test evidence of uncomplicated murine typhus at 2 hospitals in Vientiane, Laos. Patients were randomized to 7 days (D7) or 3 days (D3) of oral doxycycline or 3 days of oral azithromycin (A3). Primary outcome measures were fever clearance time and frequencies of treatment failure and relapse.; Between 2004 and 2009, the study enrolled 216 patients (72 per arm); 158 (73.2%) had serology/polymerase chain reaction (PCR)-confirmed murine typhus, and 52 (24.1%) were *R. typhi* PCR positive. The risk of treatment failure was greater for regimen A3 (22.5%; 16 of 71 patients) than for D3 (4.2%; 3 of 71) or D7 (1.4%; 1 of 71) ($P < .001$). Among *R. typhi* PCR-positive patients, the area under the time-temperature curve and the fever clearance time were significantly higher for A3 than for D3 (1.8- and 1.9-fold higher, respectively; $P = .005$) and D7 (1.5- and 1.6-fold higher; $P = .02$). No patients returned with PCR-confirmed *R. typhi* relapse.; In Lao adults, azithromycin is inferior to doxycycline as oral therapy for uncomplicated murine typhus. For doxycycline, 3- and 7-day regimens have similar efficacy. Azithromycin use in murine typhus should be reconsidered. Investigation of genomic and phenotypic markers of *R. typhi* azithromycin resistance is needed.; ISRCTN47812566.

Publisher Oxford University Press

ISSN/ISBN 1058-4838 ; 1537-6591

edoc-URL <https://edoc.unibas.ch/69662/>

Full Text on edoc Available;

Digital Object Identifier DOI 10.1093/cid/ciy563

PubMed ID <http://www.ncbi.nlm.nih.gov/pubmed/30020447>

ISI-Number MEDLINE:30020447

Document type (ISI) Journal Article