

Isolation of a New *Orientia Tsutsugamushi* Strain in South Taiwan

Jaw-Ming Cherng

Department of Internal Medicine, E-Da Hospital/I-Shou University

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Scrub typhus is an acute fever disease caused by *Orientia tsutsugamushi*. Humans are infected by bites caused by mites infected with the organism. *Orientia tsutsugamushi* can be divided into multiple serotypes and subtypes. These antigen differences are determined by a surface 56kDa major antigen. Current vaccines are only effective against specific subtypes. No single antigen has been identified to produce protection against all strains. The purpose of this current study is to investigate strains of *O. tsutsugamushi* in southern Taiwan. PCR identification of genes of the 56kDa protein was used. a new strain KS-1 with unique sequence was identified. Due to special geographic condition and evolution of strains, specific pathogenic strains might exist in Kaohsiung County Yen-Chau Village. Understanding the pathogenicity and distribution of *O. tsutsugamushi* strains in Taiwan will be helpful in preventive medicine. Infectivity and immunology of the strain should be studied in the future.

Keyword: *Orientia tsutsugamushi*, serotype, Kaohsiung County Yen-Chau Village

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Correspondence author: Jaw-Ming Cherng; Address: New Strain of *Orientia Tsutsugamushi* in Kaohsiung, Taiwan, R.O.C.

E-mail: jm.cherng@msa.hinet.net