

P1513 Scrub typhus and risk of developing cardio and cerebrovascular disease: a national health insurance database studyJoo-Hee Hwang¹, Lae Young Jung^{1,2}, Juhyung Lee², Chang-Seop Lee^{*2}¹ Chonbuk National University medical school, Jeonju, Korea, Rep. of South, ² Chonbuk National University Hospital, Jeonju, Korea, Rep. of South**Scrub typhus and risk of developing cardio- and cerebrovascular disease: A National Health Insurance Database Study**Lae Young Jung^{1,2*}, Ju-Hyung Lee^{2,3*}, Joo-Hee Hwang^{1,2}, Chang-Seop Lee^{1,2}¹ Department of Internal Medicine, Chonbuk National University, Jeonju, Republic of Korea² Biomedical Research Institute of Chonbuk National University Hospital, Jeonju, Republic of Korea,³ Department of Preventive Medicine, Chonbuk National University, Jeonju, Republic of Korea

Background: The epidemiological relationship between scrub typhus and the subsequent development of atherosclerosis remains unclear. To date, studies on the long term relationship between scrub typhus infection and risk of developing cardio- and cerebrovascular disease have not been done. In this study, we conducted a longitudinal nationwide cohort study to explore whether patients with scrub typhus are at an increased risk of subsequently developing cardiovascular and cerebrovascular disease.

Materials/methods: This study investigated the incidence for cardio- and cerebrovascular disease in 204 patients newly diagnosed with scrub typhus from the Korea National Health Insurance Service (KNHIS) database between 2002 and 2005. The comparison cohort contained 816 persons from the general population without scrub typhus using the propensity score matching. The censored cases were defined as patients who died due to any cause of death except stroke and AMI, or were alive without events until December 31, 2013.

Results: Compared with the comparison cohort, the scrub typhus cohort showed greater incidence rates of cardiovascular disease (14.5 vs 9.0 cases per 1,000 person-years), with an adjusted HR of 1.60 (95% CI 1.01 to 2.54) after controlling for demographic factors and comorbidities. In contrast, compared with the comparison cohort, the scrub typhus cohort showed no difference in incidence rates of cerebrovascular disease (12.0 vs 13.3 cases per 1,000 person-years), with an adjusted HR of 1.06 (95% CI 0.67 to 1.67) after controlling for demographic factors and comorbidities.

Conclusions: This nationwide longitudinal cohort study showed that patients with scrub typhus are at a greater risk of developing coronary artery disease long-termly compared with that of the general population.

