

中文題目：孩童時期的腸病毒感染與隨後的過敏性疾病風險之間的關聯：以台灣人口為對象之研究

英文題目：Association of prior enterovirus infection in childhood with risk for subsequent autoimmune diseases: A population-based study in Taiwan

作者：林韋睿<sup>1,2</sup>，張克宇<sup>1</sup>，張晉魁<sup>1,2</sup>，李向嚴<sup>1,2</sup>，林子閔<sup>1,2,3</sup>，張棋楨<sup>1,2,3</sup>

服務單位：<sup>1</sup>台北醫學大學附設醫院內科部，<sup>2</sup>台北醫學大學附設醫院內科部風濕免疫科，<sup>3</sup>台北醫學大學醫學院醫學系內科學科風濕免疫學科

**Purpose:** Infection events can trigger autoimmune responses in a number of chronic inflammatory diseases, but no studies have focused on their effects in patients with enterovirus infection. Our aim is to investigate the association between enterovirus (EV) infection and the risk of autoimmune diseases.

**Materials and Methods:** We used insurance claims data from Taiwan's National Health Insurance Research Database (NHIRD) to derive autoimmune diseases (ADs) incidence with or without a diagnosis of EV infection during the period from January 1, 2006 to December 31, 2015. Incidence rate ratios (IRR) and hazard ratios (HRs) of ADs for EV infection were estimated by Cox's proportional hazard regression model.

**Results:** Overall incidence of ADs was higher in the EV infected cohort (37.68 per 100,000 person-years) than in the non-EV infection cohort (25.78 per 100,000 person-years). Comparing with non-EV infected cohort, the ADs incidence rate ratio in EV-infected cohort was 1.46 (95% CI 1.34-1.60) with an adjusted hazard ratio (aHR) of 1.57 (95% CI 1.43-1.72). Respectively, the aHR of EV group were higher for particular organ specific ADs such as Type1 diabetes mellitus (aHR=1.30, 95% CI 1.05-1.62), Henoch Schlein purpura (aHR=2.14, 95% CI 1.84-2.49). Furthermore, the aHR of EV group were also higher for subgroup systemic ADs such as juvenile ankylosing spondylitis (aHR=1.85, 95% CI 1.33-2.59) and systemic lupus erythemtoasus (aHR=1.25, 95% CI 1.01-1.54).

**Conclusion:** The risk of autoimmune diseases among EV infected patients was higher than those without EV infection. Further mechanistic research should be needed.