

中文題目：風濕免疫疾病增加罹患帕金森疾病的風險性：台灣全國人口之世代研究

英文題目：Autoimmune Rheumatic Diseases and the Risk of Parkinson Disease: A Nationwide Population-based Cohort Study in Taiwan

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**Background:** In autoimmune rheumatic diseases (ARDs), the levels of inflammatory mediators are increased and microglia may be activated, resulting in an inflammatory state and the degeneration of dopaminergic neurons. This retrospective cohort study investigated the association between ARDs and Parkinson disease (PD) through a nationwide, population-based database in Taiwan.

**Methods:** We analyzed medical data from the population of Taiwan and identified ARD patients through the Taiwan National Health Insurance Research Database from 2001 to 2012. From the general population, we randomly selected a comparison cohort that was frequency-matched by age (in 5-year increments), sex, and index year. We analyzed the risk of PD, stratified by sex, age, and comorbidities, by using a Cox regression model.

**Results:** We enrolled 20,728 ARD patients (71.1% men; mean age, 68.2 years) and 41,147 controls (Table 1). The risk of PD was 1.37 times greater in ARD patients than in controls after adjustment for age, sex, and comorbidities (Table 2). ARD subgroups, such as the rheumatoid arthritis and Sjogren syndrome (SS) cohorts, were associated with a significantly higher risk of PD (adjusted hazard ratio [HR], 1.14; 95% confidence interval [CI], 1.03–1.2 and adjusted HR, 1.56; 95% CI, 1.35–1.79, respectively). Furthermore, primary and secondary SS patients had significantly higher risks of PD (adjusted HR, 1.58; 95% CI, 1.32–1.88 and adjusted HR, 1.53, 95% CI, 1.23–1.90, respectively) (Table 3) (Figure 1).

**Conclusions:** The risk of PD is significantly higher in ARD patients than in the general population.