

中文題目：闌尾炎與全身性紅斑狼瘡風險增加有關：一項全國性、基於人群的病例對照研究

英文題目：Appendicitis is Associated with an Increased Risk of Systemic Lupus Erythematosus: a Nationwide, Population-based, Case-control Study

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Background: The appendix contains a significant volume of gut-associated lymphoid tissue.

Appendectomy may alter the immune system. Several diseases such as Crohn's disease, tuberculosis, purulent liver abscess, colorectal cancer, rheumatoid arthritis and systemic lupus erythematosus (SLE) were associated with appendectomy. However, the association between appendicitis and SLE is still unclear. Here, we conducted a nationwide case-control study to determine the association between appendicitis and SLE in the Taiwan population. We took advantage of the research-friendly Taiwanese National Health Insurance Research Database (NHIRD) for our epidemiological study.

Method: From the Taiwanese National Health Insurance Research Database from 2003 to 2013, we selected 6,137 patients with SLE. To match these SLE cases by age, sex and year of SLE index date, we selected 953,699 non-SLE control cases between 2007 and 2012, at the ratio of 1 to 6. A multivariable conditional logistic regression model was used to calculate the odds ratio (OR) and 95% confidence interval (CI) for the association of appendicitis history with the development of SLE after controlling for potential confounders. Sensitivity analyses were conducted using various definitions of appendicitis.

Results: The average age of patients was 38-year-old in both groups. The proportion of females was 86.5%. 77 (1.3%) of SLE cases and 199 (0.5%) of non-SLE controls had appendicitis history before the index date. After adjusting for potential confounding factors, appendicitis was found to be associated with a higher risk of SLE (adjusted OR, 1.91; 95% CI, 1.38–2.64). The significant risk was unchanged according to various definitions of appendicitis.

Conclusion: The history of appendicitis was significantly associated with an increased risk of SLE.