

中文題目：闌尾切除術和/或扁桃體切除術（GALT 切除術）與隨後的過敏性疾病風險之間的關聯：一項全國性的基於人群的隊列研究

英文題目：Association between prior appendectomy and/or tonsillectomy (GALTectomy) and subsequent allergic disease risk: A nationwide population-based cohort study

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Background: The gut microbiome is increasingly recognized to play a role in allergic diseases (ADs). Appendectomy and/or tonsillectomy (GALTectomy) affects the gut microbiome and has been linked to chronic disease. However, little evidence supporting an association between GALTectomy and ADs has been obtained. This study explored the association of GALTectomy with AD risk.

Method: Our study analyzed medical data from the Taiwan National Health Insurance Research Database for 2006–2015. The cohort comprised Groups 1–4, which were dual appendectomy–tonsillectomy; appendectomy; tonsillectomy; and control (neither appendectomy nor tonsillectomy) groups, respectively. We individually tracked each patient to identify those who developed an AD (atopic dermatitis, allergic rhinitis, or asthma). Cox proportional hazard regression models were constructed to control for sex, age, and comorbidities.

Results: This study enrolled 276 patients in Group 1, 175,353 in Group 2, 20,624 in Group 3, and 20,930,884 in Group 4. Group 1 had the highest risks of overall ADs [adjusted hazard ratio (aHR) 2.65, 95% confidence interval (CI) 1.96–3.58] and allergic rhinitis (aHR 3.17, 95% CI 2.28–4.42). Group 2 had slightly increased risks of overall ADs (aHR 1.08, 95% CI 1.07–1.10) and allergic rhinitis (aHR 1.11, 95% CI 1.09–1.13). Group 3 also had increased risks of overall ADs (aHR 2.46, CI 2.38–2.53), allergic rhinitis (aHR 3.09, CI 2.99–3.2), and asthma (aHR 1.14, CI 1.03–1.25).

Conclusion: Patients with a history of GALTectomy have higher risk of ADs than patients with no such history. Further mechanistic research should be conducted.