

中文題目：慢性疼痛與腎衰竭風險增加有關連性：一個全國性研究

英文題目：Chronic pain was associated with increased risk of renal failure: a nationwide population-based cohort study

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**Background:** Chronic pain (CP) may contribute to increased catecholamine secretion and analgesics use, which may increase the risk of renal failure. However, previous literature about this issue is still unclear. Therefore, we conducted this study to delineate it.

**Methods:** We used the Taiwan National Health Insurance Research Database to identify participants with CP and participants without CP matched at 1:3 ratio by age, sex, and index date between 2000 and 2013 for this nationwide population-based cohort study. Using competing risk survival analysis, we compared the risk for renal failure between the two cohorts by following up until 2013.

**Results:** In total, 13993 participants with CP and 41979 participants without CP were identified for this study. The mean age ( $\pm$ SD) and female ratio were 73.49 ( $\pm$ 5.80) years and 59.29% in the participants with CP. Compared to participants without CP, participants with CP had higher prevalences of hypertension, diabetes, hyperlipidemia, heart disease, and chronic obstructive pulmonary disease (all p-values  $<$ 0.001). Participants with CP had an increased risk for renal failure than those without after adjusting for hypertension, diabetes, hyperlipidemia, heart disease, and chronic obstructive pulmonary disease (adjusted hazard ratio [AHR]: 1.92; 95% confidence interval [CI]: 1.70–2.18). Stratified analyses showed the increased risk was more prominent in the age subgroup with  $\geq$  85 years (AHR: 4.55; 95% CI: 2.01–10.32) and follow-up within 1 year (AHR: 4.15; 95% CI: 3.03–5.69).

**Conclusion:** CP was associated with increased risk of renal failure, especially significant in the population with  $\geq$  85 years. We suggest paying more attention to the older adults with CP to prevent renal failure.