

中文題目：熱傷害患者與慢性腎臟病的相關性風險

英文題目：Risk of chronic kidney disease in patients with heat injury: A nationwide longitudinal cohort study in Taiwan

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**Background:** Global climate change has led to a significant increase in temperature over the last century and has been associated with significant increases in the severity and frequency of heat injury (HI). The consequences of HI included dehydration and rhabdomyolysis, leading to acute kidney injury, which is now recognized as a clear risk factor for chronic kidney disease (CKD).

**Material and Method:** We aimed to investigate the effects of HI on the risk of CKD. This nationwide longitudinal population-based retrospective cohort study utilized the Taiwan National Health Insurance Research Database (NHIRD) data. We enrolled patients with HI who were followed in NHIRD system between 2000 and 2013. We excluded patients diagnosed with CKD or genital-urinary system-related disease before the date of the new HI diagnosis. The control cohort consisted of individuals without HI history. The patients and control cohort were selected by 1:4 matching according to the following baseline variables: sex, age, index year, and comorbidities. The outcome measure was CKD diagnosis.

**Result:** In total, 815 patients diagnosed with HI were identified. During the 13 year observation period, we identified 72 CKD events (8.83%) in the heat stroke group and 143 (4.38%) CKD events in the control group. Patients with heat stroke had an increased risk of CKD than the control patients (adjusted HR = 4.346,  $P < 0.001$ ) during the follow-up period. The risk of end-stage renal disease was also significantly increased in the heat stroke group than in the control group (adjusted hazards ratio: 9.078,  $p < 0.001$ ).

**Conclusion:** HI-related CKD may represent one of the first epidemics due to global warming. When compared to those without HI, patients with HI have an increased CKD risk.