

中文題目：無心血管疾病偏頭痛患者之周邊動脈疾病風險：一人群基礎世代研究  
英文題目：The risk of peripheral artery disease in patients with migraine and without established cardiovascular disease: a nationwide population-based cohort study

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**Background:** Migraine is deemed as a neurovascular disorder and there is growing evidence on the increased risk of cardiovascular disease, especially ischemic stroke, among patients with migraine. However the association between peripheral artery disease and migraineurs without established cardiovascular disease is still under investigation. Our study is aimed to identify the risk of peripheral artery disease among migraineurs with or without aura.

**Methods:** This was a population-based cohort study utilizing Taiwan Longitudinal Health Insurance Database (LHID2010). Subjects with established cardiovascular disease defined as myocardial infarction, stroke, peripheral artery disease, venous thromboembolism, atrial fibrillation and heart failure were excluded. Patient with and without coding of migraine from 2002 to 2011 were assigned to the migraine and non-migraine groups respectively. The migraine group was further categorized into those with/without aura. The group of total migraine, migraine with aura, migraine without aura, and their comparison were propensity score-matching by sex, age, diabetes mellitus, hypertension, hyperlipidemia, valvular heart disease, obesity, chronic obstructive pulmonary disease, liver disease, cancer, chronic kidney disease, autoimmune disease and thyroid disease. The study outcome was peripheral artery disease and stroke.

**Results:** The total migraine group, migraine without aura group and migraine with aura group included 5,173 patients, 942 patients and 479 patients respectively after propensity score-matched randomly to their controls. The migraine group had an increased risk of peripheral artery disease (adjusted hazard ratio: 1.93; 95% confidence interval: 1.45–2.57;  $p < 0.001$ ) and stroke (adjusted hazard ratio: 1.55; 95% confidence interval: 1.35–1.77;  $p < 0.001$ ) in comparison with their non-migraine counterparts. Both the groups of migraine without aura and with aura had an increased risk of stroke (adjusted hazard ratio: 1.49, 95% confidence interval: 1.11–2.00;  $p = 0.008$ ; adjusted hazard ratio: 1.63, 95% confidence interval: 1.10–2.43;  $p = 0.016$ ). As regards outcome of peripheral artery disease, the group of migraine with aura had trend of an increased risk but did not reach statistical significance.

**Conclusion:** Migraineurs without established cardiovascular disease had a significant increased risk of peripheral artery disease and stroke, and the risk of stroke persist among migraineurs with or without aura. Our study revealed a potential pathophysiology beyond the atherosclerosis linked migraine and peripheral artery disease. Moreover, screening for peripheral artery disease may be needed in caring patients with migraine.