

中文題目:以世代分析探討 靜脈曲張 預測心血管之風險及預後

英文題目: **The cardiovascular risks and outcome predictive role of varicose vein – a nationwide cohort study**

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Abstract

Background: Varicose vein (VV) is a common disease. Despite causing morbidities, it has been regarded as a benign condition and its potential threat to health is ignored. However, the impact of VV in various severities on the survival and cardiovascular events remains unknown.

Purposes: In the present study, we aimed to investigate the factors associated with overall mortality in patients with VV.

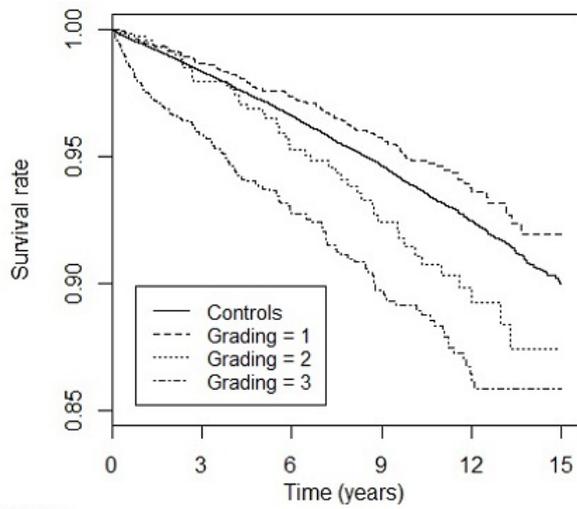
Methods: Based on Taiwan's National Health Insurance Database, we identified 4,807 newly identified patients with VV between 1999 and 2011. The severities of VV were classified from grade I to III according to the presentation of ulcer or inflammation.

Results: These patients were matched with 38,456 healthy subjects based on propensity score calculated with age, gender and chronic cardiovascular risk factors. Most of VV patients were free from systemic disease. Compared with the matched controls, both risks of mortality (adjusted HR: 1.72, 95% CI: 1.45-2.05, p=0.002) and major cardiovascular adverse events (MACE) (adjusted HR: 1.93, 95% CI: 1.79-2.07, p<0.001) increased in VV patients. Also, an elevated incidence of MACE was observed in VV patients in accordance to systemic diseases. Conversely, as focusing on only VV patients, we found that patients at higher grades of disease, older age and female gender presented higher risks of all cause mortality and MACE (**Figure**).

Conclusion: This nationwide cohort study indicated that patients with VV had higher mortality and cardiovascular events. This result implied more awareness toward VV.

Key words: varicose vein, mortality, gender, age

Kaplan-Meier Curves for VV Study



No. At Risk						
Controls	38456	32784	24773	16998	9114	0
Grading = 1	2525	2159	1610	1118	587	0
Grading = 2	704	578	455	307	154	0