A nationwide cohort study of the role of CHADS 2 score in predicting lower extremity amputation and death among patients with peripheral arterial occlusive disease

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Abstract
Objectives: The current study aimed to explore whether the CHADS2 score was predictive of lower extremity amputation (LEA) and death in people with peripheral arterial occlusive disease (PAOD).

Methods: This nationwide cohort came from Taiwan, with 16,888 PAOD patients, from 2000 through 2011, extracted from the Longitudinal Health Insurance Database 2000. Cox proportional hazard regression models were employed to identify the LEA and mortality risk according to CHADS2 score. The discriminatory properties of the score in predicting the outcomes were quantified by the area under the receiver operating characteristic curve (AUROC) and the Cox C-index.

Results: The AUROC of the CHADS2 score in predicting LEA and death were 0.75 (95% CI = 0.73-0.77) and 0.70 (95% CI = 0.69-0.71), respectively. The CHADS2 score had an acceptable stratification capacity for LEA (C-index = 0.79) and death (C-index = 0.76) based on Cox-regression analysis.

Conclusions: This study correlates the CHADS2 score with risk of developing LEA and death in patients with PAOD. The acceptable discriminative power of the score diversifies its predictive role in this population.

Keywords: CHADS2 score; death; lower extremity amputation; peripheral arterial occlusive disease

Funding and Conflicts of Interest
None