中文題目：使用 $CHADS_2$, R_2CHADS_2, CHA_2DS_2-VASc score 來預測異常 ABI 的病人之死亡率

英文題目：Using $CHADS_2$, R_2CHADS_2, CHA_2DS_2-VASc score for mortality prediction in patients with abnormal low and high ankle-brachial index

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***Background**:* Abnormal low and high ankle brachial index (ABI) is regarded as peripheral artery disease (PAD) which has extremely high morbidity and mortality. How to identify high-risk PAD patients with increased mortality is very important to improve the outcome. $CHADS_2$, R_2CHADS_2, and CHA_2DS_2-VASc score are clinically useful scores to evaluate the annual risk of stroke in patients with atrial fibrillation. However, there was no literature discussing the usefulness of these scores for cardiovascular (CV) and all-cause mortality prediction in the patients with abnormal ABI.

Method: This longitudinal study enrolled 195 patients with abnormal low (< 0.9) and high ABI (> 1.3). $CHADS_2$, R_2CHADS_2, and CHA_2DS_2-VASc score were calculated for each patient. CV and all-cause mortality data were collected for outcome prediction.

Results: The median follow-up to mortality was 90 months. After multivariate analysis, $CHADS_2$, R_2CHADS_2, and CHA_2DS_2-VASc score were significant predictors of CV and all-cause mortality (all $P < 0.001$). CHA_2DS_2-VASc score had a better additive predictive value than $CHADS_2$ and R_2CHADS_2 score for CV mortality prediction. R_2CHADS_2 and CHA_2DS_2-VASc score had better additive predictive values than $CHADS_2$ score for all-cause mortality prediction.

Conclusion: Our study is the first study to investigate the usefulness of $CHADS_2$, R_2CHADS_2, and CHA_2DS_2-VASc score for mortality prediction in patients with abnormal ABI. Our study showed all three scores are significant predictors for CV and all-cause mortality although there are some differences between the scores. Therefore, using the three scoring systems may help physicians to identify the high-risk PAD patients with increased mortality.

Key words: all-cause mortality; cardiovascular mortality; $CHADS_2$ score; CHA_2DS_2-VASc score; chronic kidney disease; R_2CHADS_2 score