

中文題目：比較不同的踝臂血壓比在預測全死亡率和心因性死亡率的差別

英文題目：Comparison of different ankle-brachial indices in prediction of overall and cardiovascular mortality

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Background: A low ankle-brachial index (ABI) calculated using systolic blood pressure (SBP) (ABIsbp) was associated with poor prognosis. ABI is always calculated using SBP. There is no study to examine the ability of ABI calculated using mean arterial pressure (ABImap) and diastolic blood pressure (ABIdbp) in predicting mortality.

Methods: Study subjects were included from patients arranged for echocardiographic examinations. The blood pressures and 3 ABIs were automatically and simultaneously measured using an ABI-form device.

Results: The median follow-up to mortality was 93 months in all 941 patients. There were 87 and 228 patients documented as CV and overall mortality. Multivariable analysis showed all 6 ABI parameters, including ABIsbp, ABImap, ABIdbp, ABIsbp < 0.9, ABImap < 0.92, and ABIdbp < 0.86 could predict overall and CV mortality ($P \leq 0.003$). In direct comparison of 6 multivariable models, basic model + ABImap < 0.92 had the highest predictive value for overall and CV mortality ($P < 0.001$). In addition, the subgroup analysis in patients with ABIsbp ≥ 0.9 found only ABIdbp < 0.86 could predict overall and CV mortality in the multivariable analysis ($P \leq 0.049$).

Conclusion: In direct comparison in the 6 multivariable models, basic model + ABImap < 0.92 was the best model in prediction of overall and CV mortality. Additionally, subgroup analysis in patients with ABIsbp ≥ 0.9 found only ABIdbp < 0.86 could predict overall and CV mortality in the multivariable analysis. Hence, calculation of ABI using mean arterial pressure and diastolic blood pressure except SBP might provide an extra benefit in survival prediction.