

中文題目：使用 Pulse wave velocity (PWV)來預測急性心肌梗塞病患的心血管死亡率

英文題目：Usefulness of estimated pulse wave velocity in prediction of cardiovascular mortality in patient with acute myocardial infarction

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Background: Pulse wave velocity (PWV) is an excellent index of arterial stiffness and can be used to predict long-term cardiovascular (CV) outcome. In recent years, estimated PWV (ePWV) calculated by equations using age and mean blood pressure was also reported to be a significant predictor of CV outcomes. However, there was no literature discussing about usefulness of ePWV in patients of acute myocardial infarction (AMI) for prediction of long-term CV and overall mortality. Therefore, we conducted this study for further evaluation.

Method: 187 AMI patients admitted to cardiac care unit were enrolled. ePWV were calculated by the equations in each patient.

Results: The median follow-up to mortality was 73 months (25th–75th percentile: 8-174 months). There were 35 and 125 patients documented as CV and overall mortality, respectively. Under univariable analysis, ePWV could independently predict long-term CV and overall mortality. However, after multivariable analysis, ePWV could only predict long-term CV mortality in AMI patients.

Conclusion: Our study was the first one to evaluate the usefulness of ePWV in AMI patients for prediction of long-term CV and overall mortality. Our study showed ePWV was not only easy to calculate by formula, but also an independent predictor for long-term CV mortality in univariable and multivariable analyses. Therefore, ePWV was a simple and useful tool to measure arterial stiffness and to predict CV mortality outcome in AMI patients without the necessity for equipment to measure PWV.

Key words: acute myocardial infarction; cardiovascular; estimated pulse wave velocity; mortality