

可攜式電子病歷的初步安全基礎架構---以TMT為例

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Abstract

BACKGROUND AND OBJECTIVES: The treadmill exercise test (TMT) is used as a first-line test for diagnosing coronary artery disease (CAD). However, the findings of a TMT can be inconclusive, such as incomplete or equivocal results. Aortic valve sclerosis (AVS) is known to be a good predictor of CAD. We determined the usefulness of assessing AVS on 2-dimensional (2D) echocardiography for making the diagnosis of CAD in patients with inconclusive results on a TMT. **SUBJECTS AND METHODS:** This prospective study involved 165 consecutive patients who underwent a TMT that resulted in inconclusive findings, 2D echocardiography to detect AVS, and coronary angiography to detect CAD. Following echocardiography, AVS was classified as none, mild, or severe. CAD was defined as $\geq 70\%$ narrowing of the luminal diameter on coronary angiography. **RESULTS:** CAD was more common in patients with AVS than in patients without AVS (75% vs. 47%, respectively, $p < 0.01$). Multiple logistic regression analysis showed that AVS was the only independent predictor of CAD {odds ratio=8.576; 95% confidence interval (CI), 3.739- 19.672}. The sensitivity, specificity, accuracy, positive predictive value, and negative predictive value of the presence of AVS for predicting CAD in a patient with an inconclusive TMT were 62%, 67%, 64%, 75%, and 53%, respectively. During a 1-year clinical follow-up, patients with and without AVS were similar in terms of event-free survival rates. **CONCLUSION:** If the results of TMT for patients with chest pain on exertion are inconclusive, the presence of AVS on echocardiography is a good predictor of CAD.