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## Evaluating diagnostic value of positive T wave in lead V1 in diagnosis of significant coronary artery disease (CAD) in patients undergoing coronary angiography

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This hypothesis is still unknown that if upright T wave in lead V1 is a predictor for significant coronary artery disease (CAD) or not, in patients without ECG abnormality in rest condition. This study aimed to evaluate diagnostic value of positive T wave in lead V1 in diagnosis of significant CAD in patients undergoing coronary angiography. This study is a cross sectional study on patients who underwent angiography from 2015 to 2017. Patients' ECGs in their medical records were assessed by two different physicians who blinded for this study. Angiography records were assessed for presence of significant CAD defined as presence of  $\geq 70\%$  of internal diameter stenosis in at least one of major epicardial coronary artery or more than 50% stenosis in left main artery. Three hundred and eighty-four (384) patients participated in this study with mean age of  $63.6 \pm 10.2$  years (40-89 years). Chi-squared test showed that prevalence of significant CAD is more in those with positive T wave in lead V1 in comparison to those without this finding (OR:2.74, P-value  $< 0.001$ ). Mann-Whitney U test showed significant correlation between number of coronary arteries involved in CAD and presence of positive T wave in lead V1 (P-value  $< 0.001$ ). Most of the patients with significant CAD had remarkably higher T wave amplitude in lead V1 in comparison to lead V6 (OR: 6.22, P-value  $< 0.001$ ). In conclusion, positive T wave in TV1 and  $TV1 > TV6$  can be considered as a criteria for predisposing significant CAD in patients without other ECG findings.

### Notes: