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# THE ROLES OF COMMON CAROTID ARTERY INTIMA-MEDIA THICKNESS AND COMPLEX CORONARY LESIONS IN RISK STRATIFICATION OF NON-ST-ELEVATION ACUTE CORONARY SYNDROMES

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**Objectives** To explore the relationship of common carotid intima-media thickness (CIMT) and the coronary lesions' morphology with the Thrombolysis in Myocardial Infarction (TIMI) risk score for non-ST-elevation acute coronary syndrome (NSTEMI). And evaluate the roles of CIMT in risk stratification of NSTEMI.

**Methods** One hundred and thirty-two patients with NSTEMI were recruited. CIMT were measured, and the coronary angiographies were analysed to detect the single or multiple complex coronary stenotic lesions. Their correlation with TIMI risk score and its variables were investigated.

**Results** Satisfying images of CIMT were obtained in one hundred and twenty-three patients (99.2%), and the general CIMT was  $0.83 \pm 0.22$  mm. Sixty-two patients (50.4%) had an abnormal ( $\geq 0.8$  mm) CIMT, whilst 52 patients (39.4%) only had single complex coronary lesions and 80 (60.6%) had multiple complex coronary lesions. CIMT was correlated with TIMI risk score

(Pearson  $r=0.25$ ,  $p=0.004$ ), whilst the presence with multiple complex lesions was associated with TIMI risk scale ( $p<0.01$ ). Using a logistic regression analysis, the presence of an abnormal CIMT was only related to age  $\geq 65$  [OR: 3.52 (CI 1.48 to 9.37),  $p=0.001$ ] and diabetes mellitus [OR: 3.83 (CI 1.66 to 8.91),  $p=0.004$ ]. The presence with multiple complex lesions was also associated with age  $\geq 65$  [OR: 17.32 (CI 6.53 to 52.34),  $p<0.001$ ] and diabetes mellitus (OR: 3.06 (CI 1.84 to 8.73),  $p=0.006$ ).

**Conclusions** CIMT and the presence of multiple complex lesions in patients with NSTEMI are correlated with TIMI risk score. Both variables were related to age and diabetes. CIMT can act a role in the risk stratification of NSTEMI.