

Left Ventricular Thrombus in Myocardial Infarction Patients Treated with Successful Primary Percutaneous Coronary Intervention: Prevalence And Predictors

Sheeren mohammed Khaled

OBJECTIVE

To determine the prevalence and predictors of LVT formation early in post acute ST elevation myocardial infarction (STEMI) treated with primary percutaneous coronary intervention (PPCI)

MATERIALS AND METHODS

This is a single centre retrospective study, including 308 consecutive patients, 81 (26%) among them were pilgrims. All patients presented with acute STEMI and were treated with successful PPCI. Early screening of LVT by standard echocardiography and CMR during hospital course revealed 36 (11.6%) patients with LV thrombus (LVT (+) group) and 272 (88.3%) patients without (LVT (-) group). The three powerful independent variables associated with LVT formation were LAD-related infarct (HR=10.17; $p<0.0001$),

severe LV systolic dysfunction (HR= 8.3; $P=0.0001$) and culprit lesion-only PCI (HR= 7.04; $P=0.015$). Pilgrim patients who had the highest heat stress and physical effort related to pilgrimage, were more vulnerable for dehydration but were not distinctively at higher risk of LVT as compared to non- pilgrims.

CONCLUSION

Early LVT formation persists a frequent complication in acute STEMI although culprit lesion is timely and successfully reperfused. It is predictable in patients suffering acute infarct in LAD territory with involvement of the apex, severe LV systolic dysfunction and culprit lesion PCI. Screening of LVT should be early and comprehensive in at-risk patients.