MITRAL REGURGITATION PREDICTS LONG-TERM MORTALITY RISK AFTER PRIMARY PERCUTANEOUS CORONARY INTERVENTION FOR ACUTE ST-ELEVATION MYOCARDIAL INFARCTION

i2 Poster Contributions
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Background: Mitral Regurgitation (MR) has prognostic implications after myocardial infarction (MI). However, for acute ST-elevation myocardial infarction (STEMI) patients receiving primary percutaneous coronary intervention (PCI), the influence of MR on outcome is unclear.

Methods: We examined 888 STEMI patients receiving primary PCI enrolled in a prospective database at a regional transfer center for rapid treatment of STEMI who had an echocardiogram 12-72 hours following successful primary PCI. MR was graded by color Doppler as none or trace, mild, and moderate to severe. Mortality was determined by Social Security Death Index. Mean±SD follow-up was 3.1±1.4 years, 103 for >5 years.

Results: For patients with none to trace (n=469), mild (n=325), and moderate to severe (n=94) MR respectively, mortality at 3 years was 8.1%, 13.6%, and 25.7% and at 5 years was 12.7%, 18.3%, and 33.5% (p<0.0001, log-rank test). Patients with more severe MR tended to be older (p<0.0001), were more likely to be female (p=0.0003), with a lower BMI (p<0.0001), higher peak creatinine (p<0.0001), lower ejection fraction (p<0.0001), more frequent history of prior CAD (p<0.05) and had different MI location (p<0.0001), with fewer anterior MIs and more new left bundle branch block.

Conclusions: MR severity is a significant predictor of long-term mortality after primary PCI for STEMI. Echocardiogram before discharge can help identify a high risk population deserving close follow-up.