**ELEVATED LEFT VENTRICULAR END-DIASTOLIC PRESSURE DOES NOT PREDICT MORTALITY IN ACUTE MYOCARDIAL INFARCTION TREATED WITH PRIMARY ANGIOPLASTY AND OPTIMAL MEDICAL THERAPY**

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Objectives/Background: The effects of left ventricular end-diastolic pressure (LVEDP) on outcomes in acute myocardial infarction treated with primary angioplasty and optimal medical therapy have not been well investigated.

Methods: Study cohort included 335 consecutive patients treated with primary angioplasty for an acute myocardial infarction at a tertiary care single center hospital. The patients were classified as normal < 13 mmHg (n=44, mean LVEDP 9.6+/-2.2 mmHg), elevated 13-24 (n=202, 18.3+/-2.6) and high LVEDP > 24 (n=81, 28.8+/-4.4). Medical therapy included beta-blockers, aspirin, statin, ACE inhibitor, and clopidogrel in 99% of patients. Mean long term follow up was 69+/-16 months.

Results: The majority of patients had elevated (62%) or high LVEDP (25%) at the time of the intervention. High LVEDP was more likely in patients with decreased ejection fraction (65% in EF<40% vs. 35% in EF >=40%, p<0.0001), shock (67 vs. 23%, p<0.05), or with left main or equivalent disease (42 vs. 23%, p=0.069). There was a trend for increased short-term mortality (4.1 vs. 0.9%, chi-square p=0.053) and long-term mortality (15.5 vs. 10.6%, log-rank p=0.231) in patients with impaired ejection fraction. LVEDP had no significant effect on in-hospital mortality (0 vs. 1.9 vs. 4.7%, chi-square p=0.201) or long-term mortality (20.4 vs. 9.9 vs. 14.8%, log-rank p=0.410).

Conclusions: Elevated LVEDP is commonly observed in patients with acute myocardial infarction. However, in patients treated with primary angioplasty and optimal medical therapy, LVEDP observed during the index event does not appear to affect either short- or long-term outcomes.