

## HEMODYNAMIC COMPLICATION IN ACUTE MYOCARDIAL INFARCTION

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**Introduction.** Acute myocardial infarction (AMI) is defined by the presence of myocardial necrosis. The pathogenesis that underlies AMI is complex and multifactorial. One of the most important components, however, is the role of thrombus formation leading to sudden coronary occlusion. AMI are one of the leading causes of death in the developed world. The incidence of MI was eight to nine times greater in people aged 55 to 64 years. Purpose of paper is to study the haemodynamic complication in AMI according to Killip classification. Materials and methods used. The retrospective cross-sectional study was based on 60 case histories analysis of patients admitted with AMI in the Cardiology Discipline, of *The Holy Trinity* Municipal Clinical Hospital. **Results.** All of the 60 patients with AMI were subjected to echo. Analysis of each patients showed that, 55.75% out of all patients had diastolic dysfunction, 65% of all patients had pulmonary hypertension, 60.9% of all patients had reduced ejection fraction and 93.2% of all patients had hypokinesia/akinesia of myocardial wall. All the patients were also subjected to coronary angiography that showed, that

the majority of patients 71.6% had tricolorary artery lesions, 13.3% of all patients had bicolorary lesions and 8.3% of all patients had mono vascular lesions. In Killip 3, patients with tricolorary lesion were 78% and in Killip 4 with 81%. Our analysis showed that the tricolorary occlusion was found to be in 50% of patients in Killip 1, 68.75% of patients in Killip 2, 77.7% of patients in Killip 3 and 71.4% of patients in Killip 4. **Conclusion.** Severe hemodynamic complications like acute pulmonary edema and cardiogenic shock are seen in most of the patients after AMI. The contractility of the myocardium is reduced (hypokinesia), leading to decreased ejection fraction and insufficient blood supply to the organs causing cardiogenic shock. Hypertension causes a volume overload in the left ventricle and because of hypokinesia, the blood is pooled back into the lungs increasing the pulmonary artery pressure and fluid leakage from alveoli causing pulmonary edema. The formation of thrombus has led to tricolorary lesions and severe complications. **Keywords:** Acute Myocardial Infarction, Ejection Fraction, Cardiogenic Shock