

A STUDY ON NEW ONSET ARRHYTHMIAS IN ACUTE MYOCARDIAL INFARCTION

ABSTRACT

BACKGROUND: Myocardial infarction is one of the causes of sudden death. Sedantary lifestyle and physical inactivity is associated with obesity and cardiovascular disease risk. Hypertension and its complications remain a major health problem causing high mortality and morbidity all over the world. Cardiac arrhythmias are one of the major complications of acute myocardial infarction. 25 % of MI patients have cardiac conduction disturbance within 24 hours following infarct onset. 25% patients with anterior wall MI develop tachycardia and hypertension. 50% of patients with inferior wall MI develop bradycardia and heart block. Coronary artery reperfusion due to thrombolytic therapy cause some arrhythmias. Attention is given to the peri-infarction period (considered as within 48 hrs of MI) as arrhythmias are most likely seen during the first week. **MATERIALS AND METHODS:** 100 cases of acute myocardial infarction presenting to the emergency room of Mahatma Gandhi Memorial Government Hospital, Trichy attached to KAPV Government Medical College were studied for occurrence of various new onset arrhythmias in relation to the type of MI, wall involved and time duration of illness. This study was conducted over a period of one year, June 2016 – June 2017. Serial ECG monitoring were done at 1,3,6,12,18,24 hrs on day one and then daily, upto one week. Various investigations like urea, sugar, creatinine, serum cholesterol, serum electrolytes, cardiac enzymes were studied. Patients were kept in ICCU for varying periods depending on general condition and observed. **RESULTS:** Myocardial infarction was most common in 40 – 49 years age group. Incidence is least in below 30 years age group. Majority of deaths was seen in 50 – 59 years age group. Male sex, Alcoholism, Smoking, Diabetes mellitus, Hypertension were the major risk factors. Anterior wall was the commonest to get involved. Maximum deaths occurred in AWTMI. Majority of arrhythmias occurred on day 1 post MI. VPC (27%) was the most common arrhythmia observed. Followed by AIVR-13%, I degree AVB - 12%, II degree AVB - 9%, VT – 8%, LBBB-

7%, CHB – 6%, RBBB, APC each 5%, AF – 4%, VF – 3%, SVT- 1% . Mortality was affected significantly by the type of arrhythmia. Maximum death was observed in VT. Overall mortality was 18 %. **CONCLUSION:** Various arrhythmias can complicate the peri-infarction period. Prompt management can reduce the mortality.

KEYWORDS: Peri-infarction arrhythmias, Acute Myocardial Infarction, Arrhythmias, Anterior wall MI, Atrioventricular blocks.