Background: Delayed PCI of a totally occluded infarct artery 24 hours after STEMI should not be undertaken in clinically stable patients without evidence of severe ischemia. Some study shows that PCI in occluded artery after MI in stable patients did not reduce the occurrence of death, reinfarction, or heart failure. In addition, there was a less excess reinfarction rate in the PCI arm.

Methods: Study conducted in a tertiary hospital in eastern India, patients who are admitted in cardiology ward, who met the inclusion and exclusion criteria were put on optimal medical therapy including atorvastatin, at their maximum tolerable doses unless contraindicated. Patients are included in the study for 1 year and follow up for 6 months with clinical and echocardiography measurements. Data will be analyzed by standard statistical methods by applying SPSS-19 software.

Result: Total 105 patients were enrolled. During visit at 6 months 46% patients were asymptomatic and rest presented with Shortness of breath. Among this 46% of patients 20% had NYHA class II and 34% had class III symptoms. 46% had mild, 11% had moderate RWMA and 43% had severe RWMA. 27% had no MR, 41 had grade 1 and rest 32% had grade 2 MR. During the period of 6 months follow up readmission due to cardiac cause reason in 2nd visit was in 9 patients (9%) and non fatal MI occurs in 4 patients (4%).

Conclusions: Early and timely revascularization is beneficial for the patient till myocardium is viable. But delayed revascularization is of questionable benefit. In spite of optimum medical therapy patients with total occlusion of IRA and non viable myocardium developed progressive remodeling. Shortness of breath was predominant symptoms in follow up.

KEYWORDS: St Segment Elevation Myocardial Infarction, total Occlusion Of Infarct Related Artery, optimum Medical Therapy.
class III symptoms. About RWMA 46% had mild RWMA, 11% had moderate RWMA and 43% had severe RWMA. Regarding mitral regurgitation at 6 months 27% had no MR, 41 had grade 1 MR and rest 32%had grade 2 MR . Out of 100 patients at 6 months 66 patients survived from development of NYHA class III/IV heart failure symptoms.

During the period of 6 months follow up readmission due to cardiovascular reason in 2nd visit was in 9 patients (9%) and non fatal MI occurred in 4 patients (4%).

One sample t test were done among progression of change of ejection fraction (EF), LVIDd, LVIDs, e' and E/e' in successive follow up. All of the parameters show statistically significant correlation (p<0.05).

Mean LVIDd in AWMI in follow up visit 36.53±1.01 and 50.95±8.24, in IWMI 32±1.66, 35.6±1.22, in IWMI + RVMI 34±1.3, 33.22±2.87, Mean e' in AWMI in follow up visit 8.4±4.4 and 6±4, in IWMI 12±9.5

12±.37, in IWMI + RVMI 12±1,12±2.87. Mean E/e' in AWMI in follow up visit 16±1.6 and 28±1.4, in IWMI 10±9.5, 12±0.37, in IWMI + RVMI 12±1,12±2.87. Similarly the changes in LVIDs, E/e' and e' all found to be statistically significant (p<0.05).

**DISCUSSION:**

Pfeffer MA, Braunwald E18 In there study the 100 patients who were stable haemodynamically and electrically at the time of recruitment developed left ventricular remodeling, deterioration of systolic dysfunction with gradual diminution of ejection fraction as well as diastolic dysfunction on further visit which were found to be statistically significant. OAT study(7) showed maximum ventricular remodeling was found to be in AWMI patient, maximum left ventricular dilation, maximum left atrial dilation , maximum deterioration of e' as well as elevation of E/e' were found in AWMI patient. OAT study(7) also demonstrated that occurrence of angina declined gradually. Horie et al (10) showed 10 times more episode of heart failure in comparison to PCI group. AU Tayebeh MJ, Lip GY, MacFadyen RJ(11)said Oclusive coronary disease is an important cause of global morbidity and mortality. Judith S. Hochman et al(7) showed 2166 patients with no reduction in major cardiovascular events during a mean follow-up of 3 years. There was a trend toward excess nonfatal reinfarction when routine PCI was performed in stable patients who were found to have occlusion of the infarct-related artery 3 to 28 days after myocardial infarction. In this study in conservative management there was less trend of non fatal infarct (4%). John P.A. Ioannidis etal. showed percutaneous coronary intervention does not seem to confer any benefit when used for late revascularization of occluded arteries after MI in stable patients.

**SUMMARY AND CONCLUSION:**

According to late open artery hypothesis mechanical opening of a persistently occluded infarct related artery at the time too late for myocardial salvage should improve the long term outcome. But latest ACC/AHA guideline of STEMI management opined for conservative management of these group of patients. This study was a 6 month follow up study of group of 100 patients .There was no mortality found during this period of study. There was 9% incidence of readmission and 4% incidence of non fatal MI only, there was no complaint of chest pain on subsequent visit. The patients of IWMI who had RV involvement also during admission did well with conservative management. There was no further evidence of RV (right ventricle) systolic dysfunction on follow up visit. On follow up visit the patient gradually developed features of LV remodeling and LA (left atrium) enlargement. LV remodeling has been indicated by progressive dilatation of LV (progressive increment of LVIDd and LVIDs) and diminution of EF. LV diastolic parameters were also deranged. Tissue Doppler e' gradually decreased and E/e' gradually increased. These alterations more pronounced with AWMI. Regarding symptoms of the patient more with AWMI developed predominantly heart failure symptoms. Following conclusions could be made from this study:

1. In spite of optimum medical therapy patients with total occlusion of IRA and non viable myocardium developed progressive remodeling.
2. Remodeling causes gradually progressive HF symptoms.
3. If the patient has not developed new coronary lesion patients usually didn't present with chest pain, shortness of breath was predominant symptoms in follow up in this group of patients.

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