



**ORIGINAL RESEARCH PAPER**

**General Medicine**

**A STUDY OF CLINICAL PROFILE OF FEMALE PATIENTS WITH ST ELEVATION MYOCARDIAL INFARCTION ATTENDED IN A TERTIARY CARE HOSPITAL IN A SUB URBAN POPULATION**

**KEY WORDS:** ASMI, ST Elevation, STEMI, Killip's classification, Diabetes

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**ABSTRACT**  
 Cardiovascular disease is the leading cause of death among women, regardless of race or ethnicity, and causing the deaths of one in three women; this amounts to more deaths from heart disease than from stroke, lung cancer, chronic obstructive lung disease, and breast cancer combined. This study highlights the importance of delivery of early management of such infraction gives good prognosis. Aim of the study is to study the various presenting features of ST Elevation Myocardial Infarction (STEMI) in female patients and to identify important risk factors of ST Elevation Myocardial Infarction (STEMI) in our study population. 90 Patients were screened in casualty detailed history with regard to history risk factor analysis was made. Investigations like complete blood count, renal function test, Urine Routine examination, Chest x ray and ECG were taken. Type of myocardial infarction was based on surface ECG. The incidence of ST elevation myocardial infarction in women were observed more in age group above 70 years, diabetes women were more affected as compared to non-diabetic. In our study chest pain was the most common symptom observed and most common sign observed was crackles. Most of the patients belonged to Killip Class-I. Most common age group affected was above 70yrs Diabetes is clearly related to risk of myocardial infarction. Both obesity and hypertension are also associated with increased risk of myocardial infarction in female population. Most of the patients with myocardial infarction have dyslipidemia. Most common type of myocardial infarction is anteroseptal myocardial infarction (ASMI).

**INTRODUCTION**

Cardiovascular disease is the leading cause of death among women, regardless of race or ethnicity, and causing the deaths of 1 in 3 women; this amounts to more deaths from heart disease than from stroke, lung cancer, chronic obstructive lung disease, and breast cancer combined. <sup>1</sup> A greater proportion of women (52 percent) than men (42 percent) with myocardial infarction die of sudden cardiac death before reaching the hospital, and two thirds of women who suffer a myocardial infarction never completely recover. Thus, understanding even subtle differences between men and women in development or progression of cardiovascular disease, use of proven therapies, and response to therapy is paramount. <sup>2,3</sup>

Despite this delay in onset, mortality from coronary heart disease is increasing more rapidly among women than men in both the developed and developing world. <sup>4,5</sup> The prevalence of hypertension increases with advancing age; and because life expectancy is greater for women than men, there are more elderly women with hypertension <sup>6</sup>. Generally, women are more likely to have controlled blood pressure than men<sup>5</sup>. Diabetic individuals have higher mortality rates from coronary artery disease than non diabetics. <sup>9</sup> LDL (low density lipoprotein) levels increase with increasing age for both women and men and especially important in women. <sup>7,8</sup> In fact, one group of researchers suggest that enlarged waist (>88 cm) combined with elevated triglycerides (>1.45 mmol/L) best prospectively identified postmenopausal women at risk followed over 8 years <sup>10</sup>

**Need for the study:**

It highlights the importance of delivery of early management of such infraction gives good prognosis. And also scarcity of studies on ST elevation myocardial infarction in females from sub urban population in India.

**AIMS & OBJECTIVES OF THE STUDY-** To study the clinical profile of 90 female cases of ST elevation myocardial infarction and to analyse the age and sex distribution, symptomatology, clinical features, complications and

outcome in a tertiary care hospital in a sub urban population

**MATERIALS AND METHODS:**

This was a cross sectional study. After getting necessary permission, 90 female patient's presented in casualty with ST elevation infraction were observed All patients included in the study were subjected to ECG examination. ECGs were examined at the time of admission, second day and on the day of discharge. For statistical convenience people were divided into diagnostic group. Statistical analysis was done using SPSS24.

**RESULTS:**

Highest incidence of STEMI in patients of age above 75 years (10 patients), 60 -70 years (7patients ) and lowest in age group 45 years (0 Patients ). Show association of increased age and infraction .

**Table I-** shows presenting illness associated with ST myocardial infraction in our study , chest pain was the most common symptom seen in 71 patients followed by breathlessness seen in 21 patients and nausea seen in 17 patients .

It was observed in our study that prevalence of diabetes was high in myocardial infraction . around 12 patient with myocardial infraction our study were diabetic .

**Table II-** while presenting with ST elevation myocardial infraction in our study most common clinical sign observed was hypertension which was seen in 27 patients followed by crackles in 32 patients and pedal edema in 18 patients and apical shift in 13 patients .

**Table III-** following a ST elevation infraction , In our study, most of the patients presented with Killip Class I. Out of the 90 patients, 58 patients presented with Killip class I and 20 patients were in Class II.

In our study it was observed higher values of LDL cholesterol were associated with infraction.

**Table 1 Clinical presentation**

Symptoms	No. of Cases (total cases=90)
Chest pain (mild to severe angina)	71
Radiation	19
Vomiting	15
Nausea	17
Breathlessness	29
Breathless without Chest pain	19
Palpitation	22
Epigastric pain	12
Others (CVA, Asymptomatic)	1

**Table 2 - Clinical sign presented**

Signs	No. of cases (total 90)
Hypertension	27
Hypotension	3
Crackles	32
Raised JVP	12
Associated MR	6
Pedal edema	18
Apical shift	13
Wheeze	7
S3	21
S4	5
Pallor	24

**Table 3: Number of patients according to Killip Classification:**

Class	No of cases (Total=90)
Class I	58
Class II	20
Class III	9
Class IV	3

**DISCUSSION:**

The study population included data of 90 female patients who presented in casualty with ST elevation myocardial infraction. Most of the patients belonged to age group above 70 years ( 10 patients) This could be due to the fact that there is a higher chance of comorbid illness in this age group . chest pain was the most common symptom seen in 71 patients followed by breathlessness seen in 21 patients and nausea seen in 17 patients . prevalence of diabetes was high in myocardial infraction . around 12 patient with myocardial infraction in our study were diabetic. It showed a positive correlation between diabetes and myocardial infraction. Most of the patients presented with Killip Class I. Out of the 90 patients, 58 patients presented with Killip class I and 20 patients were in Class II.

This study highlights the importance of delivery of early management of such infraction gives good prognosis.

**Limitations:**

1. Less number of study participants
2. Time period of the research was short

**CONCLUSION**

Most of the patients belonged to Killip Class-I. Most common age group affected was above 60yrs and showing that risk of myocardial infarction increases proportionately with age. Diabetes is clearly related to risk of myocardial infarction. Both obesity and hypertension are also associated with increased risk of myocardial infarction in female population. Most of the patients with myocardial infarction have dyslipidemia. Most common type of myocardial infarction is anteroseptal myocardial infarction(ASMI) .

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