



THE PATTERN OF CARDIOVASCULAR RISK FACTORS IN PATIENTS UNDER 40 YEARS PRESENTED WITH ST-ELEVATION MYOCARDIAL INFARCTION (STEMI)

By

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INTRODUCTION

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- **Coronary artery disease (CAD) is the leading cause of death throughout the world.**
- **Previously, acute myocardial infarction (AMI) among young population used to be very uncommon but during the recent years, its incidence started to steadily increase.**

INTRODUCTION

- **Younger patients have different risk factor profile, clinical presentation, pattern of coronary artery involvement and clinical outcome than older patients.**
- **Most of the cardiovascular risk factors studied are studied in older patients and there are a few data on the risk factors that may cause myocardial infarction in young patients less than 40 years of age.**



AIM OF THE WORK

THE PURPOSE OF THIS WORLDWIDE STUDY WAS

TO

Determine the pattern of cardiovascular risk factors in patients who are under 40 years of age and presenting by acute STEMI.



PATIENTS & METHODS

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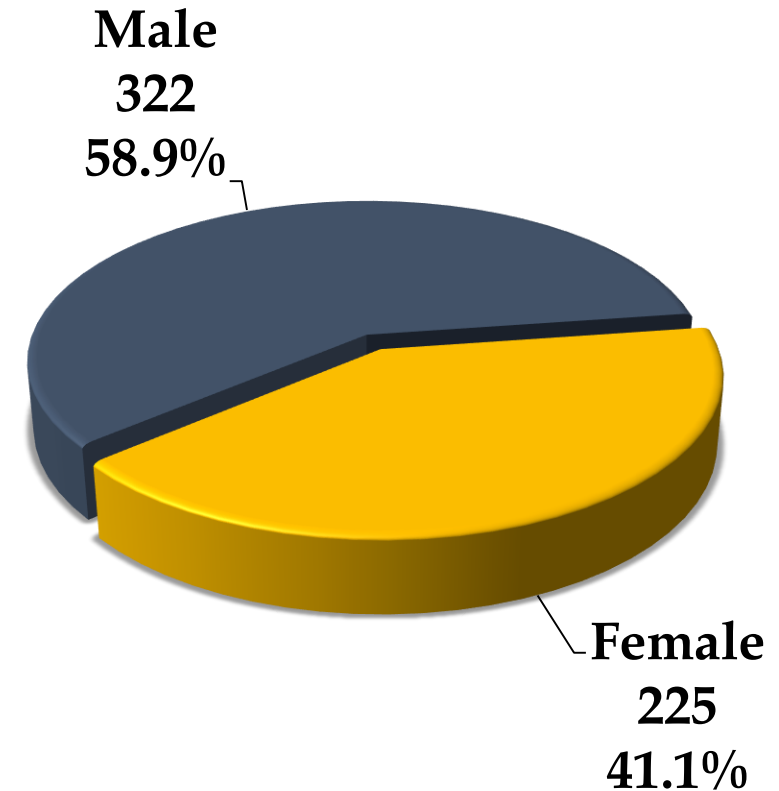
- **A retrospective descriptive study of 547 patients under 40 years of age and over 18 years of age who were admitted by acute STEMI between the period of January 2013 to December 2016 to determine the cardiovascular risk factors as well as the initial laboratory data and the location of STEMI.**
- **The study was conducted in 27 tertiary care hospitals in 7 countries.**



RESULTS

DEMOGRAPHIC DATA

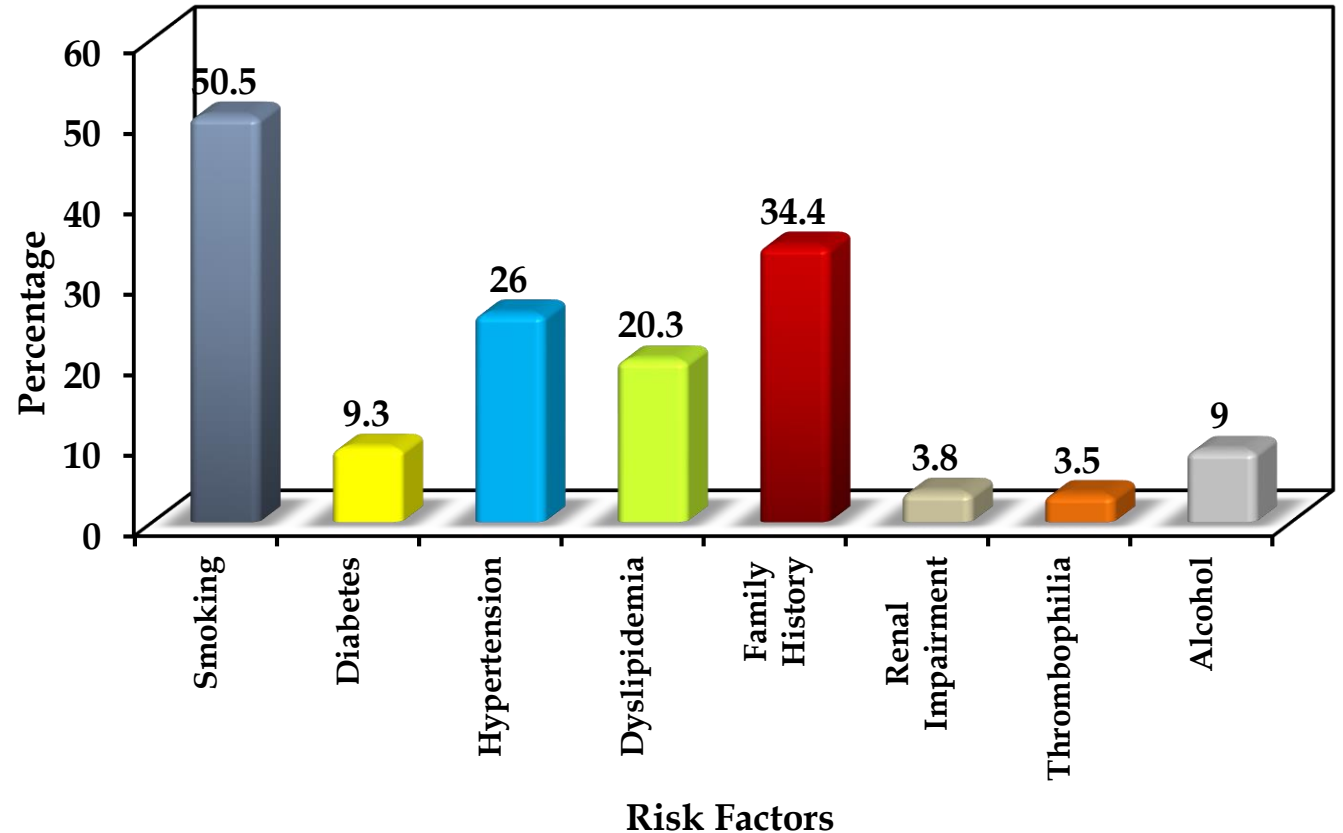
Demographic data	
Age (years)	32.86 (± 5.43)
Sex (males)	322 (58.9%)



All data are represented in mean (\pm SD) or Number (Percentage)

RISK FACTORS

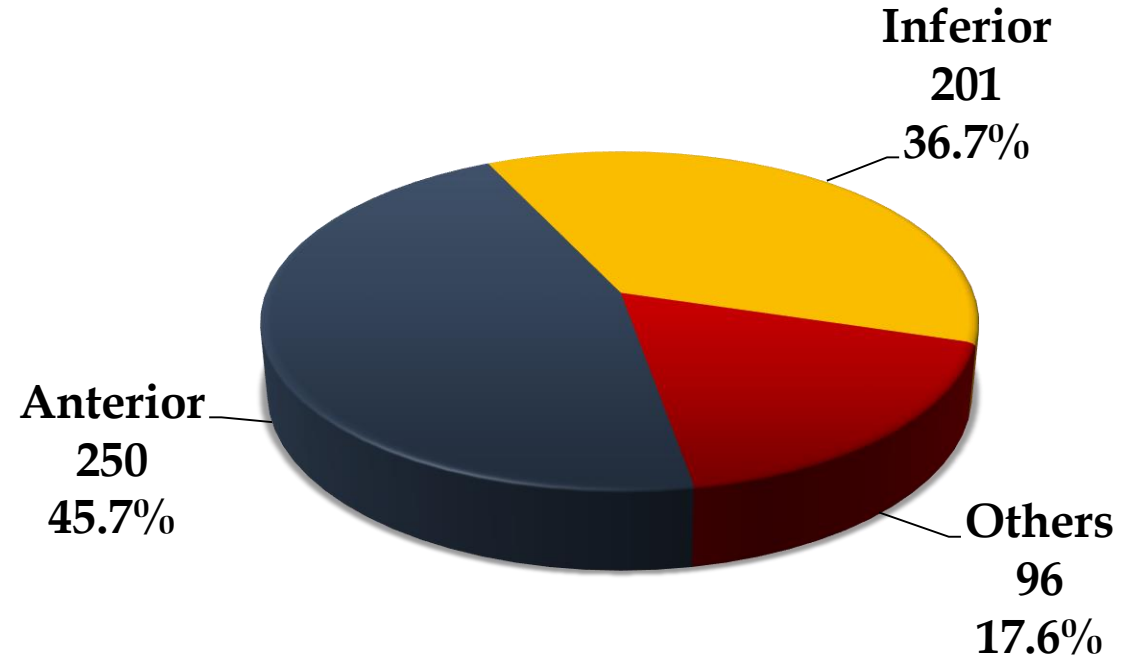
Risk Factors	
Smoking	276 (50.5%)
Diabetes	51 (9.3%)
Hypertension	142 (26%)
Dyslipidemia	111 (20.3%)
Family History	188 (34.4%)
Renal Impairment	21 (3.8%)
Thrombophilia	19 (3.5%)
Alcohol	49 (9%)



All data are represented in mean (\pm SD) or Number (Percentage)

CLINICAL PRESENTATION

STEMI Location	
Anterior	250 (45.7%)
Inferior	201 (36.7%)
Others	96 (17.6%)



All data are represented in mean (\pm SD) or Number (Percentage)

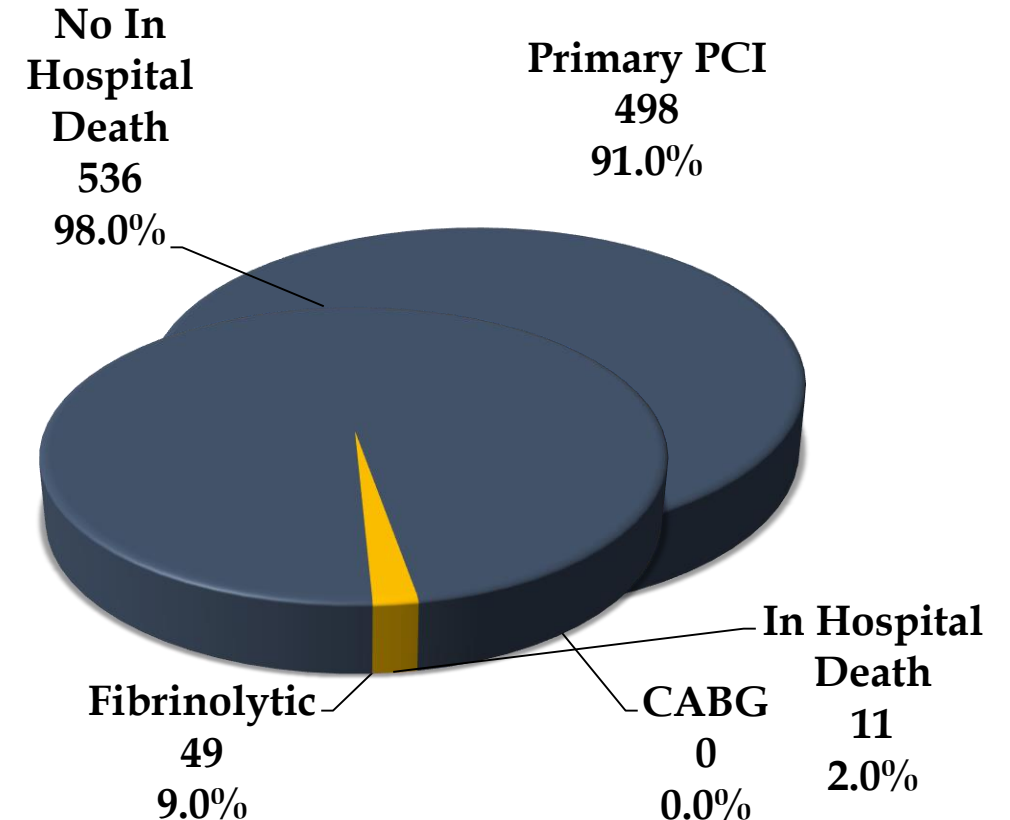
LABORATORY DATA

Laboratory Data	
Hemoglobin (g/dl)	13.5 (± 2.1)
Creatinine (mg/dl)	0.95 (± 0.5)
Total cholesterol (mg/dl)	188.5 (± 62.6)
Low Density Lipoprotein (LDL) (mg/dl)	101.1 (± 33.1)
Triglycerides (mg/dl)	155.4 (± 59.3)
Hemoglobin A1C (%)	6.51 (± 1.34)

All data are represented in mean (\pm SD) or Number (Percentage)

MANAGEMENT & OUTCOME

Management & outcome	
Fibrinolytic	49 (9%)
Primary PCI	498 (91 %)
CABG	0 (0%)
In Hospital Death	11 (2%)



All data are represented in mean (\pm SD) or Number (Percentage)

CONCLUSION

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- In young patients under 40 years of age presenting with STEMI, the most common cardiovascular risk factors were **smoking, positive family history of CAD, hypertension and dyslipidemia**. Also, the in-hospital mortality was found to be **2% only**.

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Thank
you

