

Original Research

Clinical Profile of Patients with Coronary Artery Disease- A Clinical Study

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ABSTRACT:

Background: Coronary heart disease (CHD) or cardiovascular diseases are recognized to be one of the most important reasons of morbidity and mortality and imposes tremendously heavy socio-economic burden worldwide. The present study was conducted to determine clinical profile of patients with coronary artery disease. **Materials & Methods:** The present study was conducted on 114 cases of coronary artery disease (CAD) of both genders. Detailed clinical history followed by general physical examination and systemic examination was done in all. Weight, height, BMI, blood pressure, fasting blood glucose, post-prandial plasma glucose, cholesterol and HDL level was measured. **Results:** Out of 114 patients, males were 64 and females were 50. The mean height in males was 165.2 cm and in females was 152.4 cm, weight was 72.1 meters and in females was 64.7 meters, BMI was 24.3 Kg/m² in males and 26.1 Kg/m² in females, SBP in males was 124.6 mm Hg and in females was 120.8 mm Hg, DBP in males was 78.6 mm Hg and in females was 76.2 mm Hg, fasting plasma glucose in males was 94.6 mg/Dl and in females was 90.2 mg/Dl, PPPG in males was 135.6 mg/Dl and in females was 131.2 mg/Dl, total cholesterol in males was 188.5 mg/Dl and in females was 178.4 mg/Dl, HDL was 41.5 mg/Dl in males and 46.8 mg/Dl in females. The difference was significant (P< 0.05). Common risk factors in patients was smoking in 86, family history in 25, BMI >30 in 58, diabetes mellitus in 45, hypertension in 49 and dyslipidemia in 81. **Conclusion:** Authors found that maximum cases were seen in males and common risk factors were smoking, dyslipidemia and BMI>30.

Key words: Coronary heart disease, Dyslipidemia, Smoking.

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INTRODUCTION

Coronary heart disease (CHD) or cardiovascular diseases are recognized to be one of the most important reasons of morbidity and mortality and imposes tremendously heavy socio-economic burden worldwide.¹ There are varieties of risk factors in the literature which increases the incidence of CHD such as hyperlipidemia. By the year 2020, World Health Organization (WHO) is predicting more than 11.1 million deaths from CHD. It is projected that the annual number of deaths due to cardiovascular disease will increase from 17.5 million in 2012 to 25 million in 2030.² The prevalence of classic cardiovascular risk factors such as hypertension, dyslipidemia, obesity and diabetes, varies widely between different countries, and shows some important secular trends.³ The conventional risk factors for

CAD can be divided into nonmodifiable and modifiable risk factors.⁴ The former include age, sex and family history, while the latter include diabetes mellitus (DM), smoking, dyslipidemia, hypertension and obesity. There is increasing incidence indicating that Asian Indians are at increased risk of CAD, which cannot be attributed to the common risk factors.⁵ Recently, a number of newer cardiovascular risk factors have been identified, which are of great interest as more than 60% of CAD in native Indians remains unexplained by conventional risk factors.⁶ Comparative studies on newer risk factors show that Indians have higher C-reactive protein, plasminogen activator inhibitor (PAI-1) and homocysteine levels.⁷ The present study was conducted to determine clinical profile of patients with coronary artery disease.

MATERIALS & METHODS

The present study was conducted in the department of Medicine. It comprised of 114 cases of coronary artery disease (CAD) of both genders. The study was approved from the institutional ethical committee. All were informed regarding the study and written consent was obtained.

Data such as name, age, gender etc. was recorded. Detailed clinical history followed by general physical examination and systemic examination was done in all. Weight, height, BMI, blood pressure, fasting blood glucose, post-prandial plasma glucose, cholesterol and HDL level was measured. Results were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 114		
Gender	Males	Females
Number	64	50

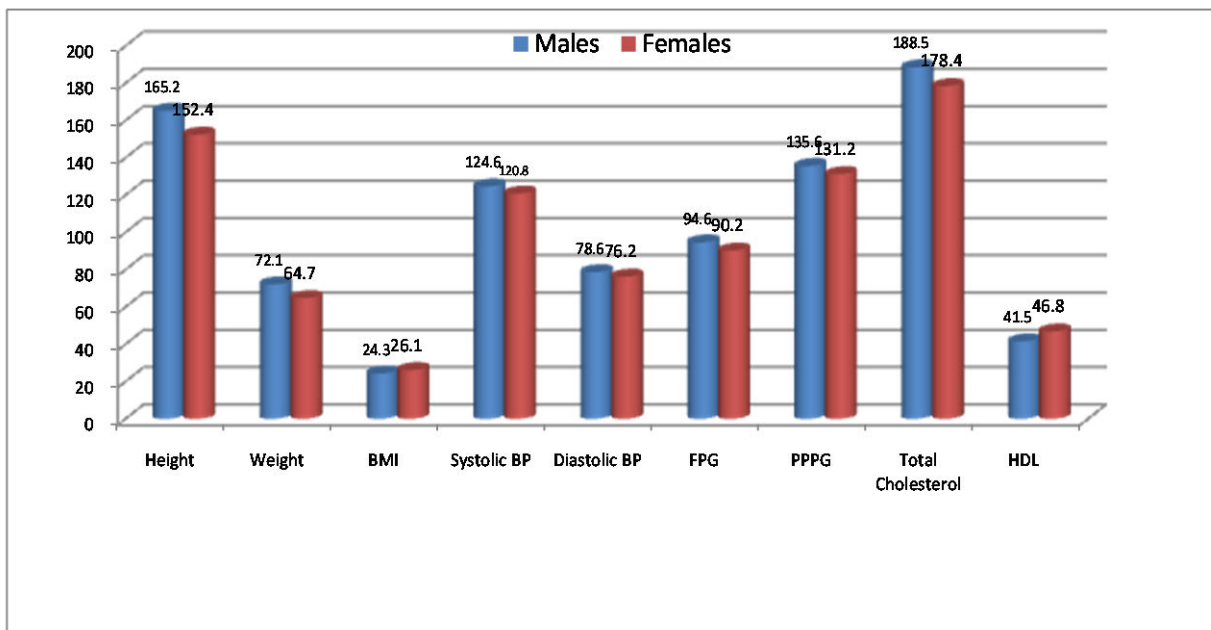
Table I shows that out of 114 patients, males were 64 and females were 50.

Table II Baseline characteristics of patients

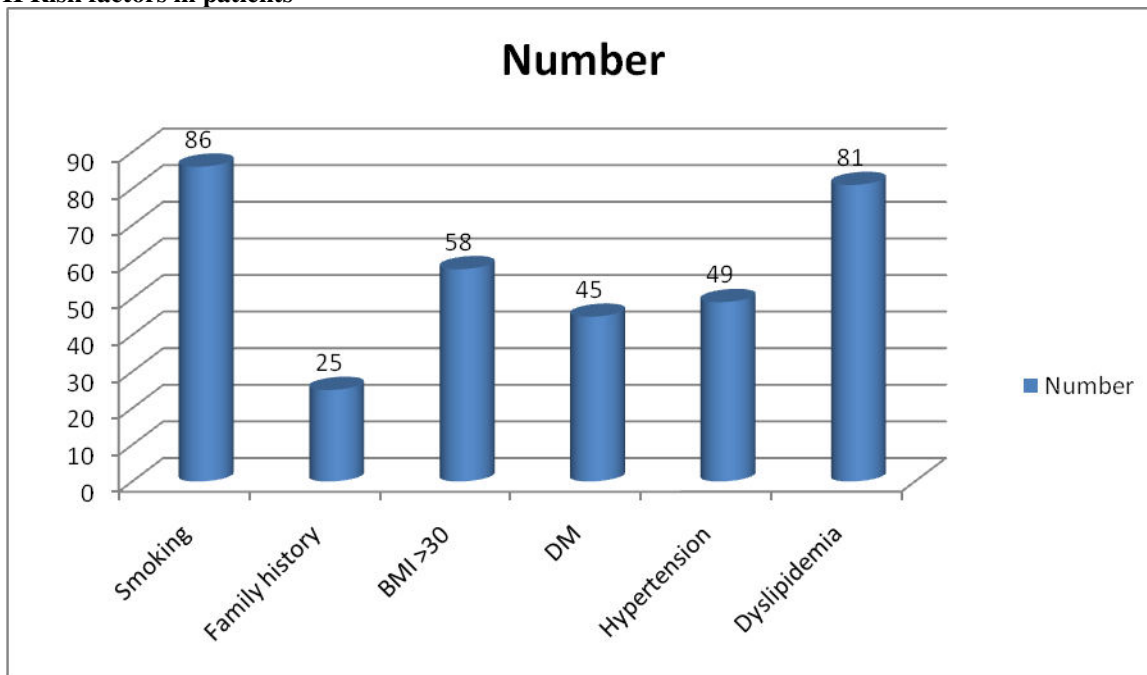
Parameters	Males	Females	P value
Height	165.2	152.4	0.02
Weight	72.1	64.7	0.01
BMI	24.3	26.1	0.05
Systolic BP	124.6	120.8	0.02
Diastolic BP	78.6	76.2	0.01
FPG	94.6	90.2	0.05
PPPG	135.6	131.2	0.04
Total Cholesterol	188.5	178.4	0.02
HDL	41.5	46.8	0.01

Table II, graph I shows that mean height in males was 165.2 cm and in females was 152.4 cm, weight was 72.1 meters and in females was 64.7 meters, BMI was 24.3 Kg/m² in males and 26.1 Kg/m² in females, SBP in males was 124.6 mm Hg and in females was 120.8 mm Hg, DBP in males was 78.6 mm Hg and in females was 76.2 mm Hg, fasting plasma glucose in males was 94.6 mg/Dl and in females was 90.2 mg/Dl, PPPG in males was 135.6 mg/Dl and in females was 131.2 mg/Dl, total cholesterol in males was 188.5 mg/Dl and in females was 178.4 mg/Dl, HDL was 41.5 mg/Dl in males and 46.8 mg/Dl in females. The difference was significant (P < 0.05).

Graph I Baseline characteristics of patients



Graph II Risk factors in patients



Graph II shows that common risk factors in patients was smoking in 86, family history in 25, BMI >30 in 58, diabetes mellitus in 45, hypertension in 49 and dyslipidemia in 81.

DISCUSSION

The incidence of CAD is likely to increase further because of rapid urbanization and its accompanying lifestyle changes, including changes in diet, physical inactivity, drug and alcohol intake, as well as an increase in the prevalence of DM.⁸ The prevalence of risk factors in a population determines the future burden on healthcare services and the loss of an individual’s productive years. Risk factors constitute a health risk for the individual and impose an overall burden on the economy.⁹

CADs are the most predictable cause of sudden death. For many years, CHD prevalence was believed to be relatively low in developed countries. Recent studies have indicated a remarkably high proportion of mild to severe CHD in a number of patients. CHD is more prevalent in men than in women. However its prevalence interrelates with age. It is about 0.7% in 18 to 45 year olds. Whereas 13.3% in the 55 years and onwards. According to the Global Burden of Disease study estimate of age-standardized CVD death rate of 272 per 1,00,000 population in India is higher than the global average of 235 per 100,000 population.¹⁰ The present study was conducted to determine clinical profile of patients with coronary artery disease.

In this study, out of 114 patients, males were 64 and females were 50. The mean height in males was 165.2 cm and in females was 152.4 cm, weight was 72.1 meters and in females was 64.7 meters, BMI was 24.3 Kg/m² in males and 26.1 Kg/m² in females, SBP in males was 124.6 mm Hg and in females was 120.8 mm Hg, DBP in males was 78.6

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Laltesh et al¹¹ conducted a study to assess the prevalence of risk factors for coronary artery disease (CAD). The study revealed that 4.6% of the study population had a family history of premature CAD. The overall prevalence of diabetes was 16% (5.6% diagnosed during the study and the remaining 10.4% already on medication). Hypertension was present in 21% of subjects. The prevalence of dyslipidemia was significantly high, with 45.6% of study subjects having a high total cholesterol/high density lipoprotein ratio. Overall, 78.6% subjects had two or more risk factors for CAD.

We found that common risk factors in patients was smoking in 86, family history in 25, BMI >30 in 58, diabetes mellitus in 45, hypertension in 49 and dyslipidemia in 81.

Rahilly et al¹² conducted a study on 90 patients with acute or severe coronary heart diseases. The Total Serum cholesterol to high density lipoprotein-Cholesterol and Low density lipoprotein- Cholesterol to High density lipoprotein-Cholesterol ratios also were significantly higher in cases than in controls, whereas the rise in Triglycerides to High Density Lipoprotein-Cholesterol ratio was not found to be significant.

CONCLUSION

Authors found that maximum cases were seen in males and common risk factors were smoking, dyslipidemia and BMI>30.

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