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Original Research Paper

Medicine

CORONARY ANGIOGRAPHIC PROFILE OF YOUNG PATIENT'S (AGED 40 YEARS OR LESS) IN A TERTIARY CARE HOSPITAL IN CENTRAL INDIA

P.Singh Gandhi Medical College And Hamidia Hospital Bhopal,india

V.Dangi Gandhi Medical College And Hamidia Hospital Bhopal,india

A.Dhiran* Gandhi Medical College And Hamidia Hospital Bhopal,india*Corresponding Author

Y.Varma Gandhi Medical College And Hamidia Hospital Bhopal,india

ABSTRACT

OBJECTIVE-To assess the extent and severity of coronary artery disease(CAD) in patient's aged 40 years and less having established or suspected CAD in tertiary care hospital in central india (GMC BHOPAL).

METHODOLOGY- This study was conducted in department of cardiology Gandhi medical college and hamidia hospital Bhopal from October 2016 to September 2017.This study was conducted on 152 patient's of established or suspected CAD.Coronary angiography was performed through radial and femoral routes.

RESULTS- Percentage of single vessel disease in males <40 years was 52.03%.Most of the males among this group fell under 28-40 years of age.Percentage of single vessel disease in females <40 years was 44.82%.Percentage of double vessel disease in males was 29.27% and in females was 13.8% respectively.Triple vessel disease in males and females were 1.63% and 3.44% respectively.

CONCLUSION- Patients aged 40 years or less who undervent CAG for established or suspected CAD,1.63% of males and 3.44% of females had significant CAD which warrants extremes of preventive steps and also revascularization to prevent reoccurrence and fatalities due to CAD.

KEYWORDS :

METHODOLOGY

This study was conducted in department of cardiology GMC Bhopal from oct 2016 to sep 2017,it was a prospective observational,cross sectional ,analytical study on total 152 patients ,123 were men &29 were women aged< 40 years which were presented with chest pain and found to have STEMI,NSTEMI,unstable angina,stable angina,atypical chest pain who underwent CAG for evaluation of CAD,chi square test used and p value less than 0.05 considered significant. Demographic like age,personal habbits (smoking, tobacco chewing, alcohol conswumption),physical examination, and anthropometric measurements were recorded.Blood samples were taken for biochemical investigations.CD ECHO,TMT(If no contraindications) were carried out.

INCLUSION CRITERIA

1.Patient diagnosed with CAD based on ECG,CD ECHO,TMT,aged less than 40 years.
2.Patients with atypical chest pain.

EXCLUSION CRITERIA

1.Age >40 years
2.patients undergoing major surgeries.

RESULTS

TABLE NO.1:

	MALES	PERCENTAGE %	FEMALES	PERCENTAGE %
SMOKERS	68/123	55.28	2/29	6.89
BMI>25	32/123	26.01	8/29	27.58
DM	27/123	21.95	13/29	44.82
HYPERTENSION	46/123	37.39	10/29	34.48
DYSLIPIDEMIA	54/123	43.90	15/29	51.72
FAMILY HISTORY	6/123	4.87	3/29	10.34

In our study,55.28% males were smoker and second most important risk factor was dyslipidemia,in males which was 43.90%.Hypertension was present in 37.39% of males,BMI>25 was present in 26.01%.Similarly in females dyslipidemia was main risk factor 51.27%,followed by DM which was 44.82%.

TABLE NO.2:

EXTENT OF DISEASE	NUMBER OF MALE PATIENTS	PERCENTAGE	NUMBER OF FEMALE PATIENTS	PERCENTAGE
SVD	64	52.03	13	44.82
DVD	36	29.27	4	13.8
TVD	2	1.63	1	3.44
RECANALISED	1	0.81	2	6.9
NORMAL	20	16.26	9	31.03
TOTAL	123		29	

From above RESULT percentage of males and females both are higher for single vessel disease,52.03 And 44.82 % respectively.Dyslipidemia,smoking and hypertension were the main risk factors found in males with CAD in our study.In females dyslipidemia and diabetes were the main risk factors in CAD patients.

DISCUSSION

In young patients especially in males smoking was the main culprit,responsible for coronary artery disease,which was present in more than 50% of males in study group.smoking has been the strongest risk factor evaluated till date for heart disease.Heavy smoking by far is the most common factor related to CAD in young patients.(8).Hypercholestrolemia is most common and treatable cause of heart disease.Family history due to mutation in LDL receptor,APO B ,APO E genes are important for this to happen .So screening of population with premature CAD for hypercholesterolemia and such genetic mutations can be important to reduce risk of death due to premature CAD(2).Critical (severe)CAD was defined as narrowing of more than 70% of a coronary artery which results in significant reduction of maximum flow capacity in vascular bed(4).Young men and women more often had normal angiogram.In our study family history was present more

for males as compare to females with premature CAD,there survival rates and prognosis is better than older patients(5).High population attributable risks were linked with excess weight(BMI more than 25),hypertension,DM 2(6).There should be active intervention at society level to reduce risk of obesity and further consequences.Similarly women with premature CAD have more risk factors including dyslipidemia,hypertension,DM2,BMI >25(7).

CONCLUSION

Percentage of SVD in males and females aged less than 40 years were higher than DVD and TVD.In our study most of the risk factors including hypertension ,hypercholesterolemia,DM 2,obesity were present significantly in both the males and females study group which can be reduced by modification in life style.Smoking was also found significantly present in males in our study group.By reducing these above mentioned risk factors in the population,we can reduce the burden of CAD in young patients.

ABBREVIATIONS

SVD: SINGLE VESSEL DISEASE
DVD:DOUBLE VESSEL DISEASE
TVD:TRIPLE VESSEL DISEASE
CAD:CORONARY ARTERY DISEASE
DM2:DIABETES MELLITUS TYPE 2
BMI: BODY MASS INDEX

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