

PREVALENCE OF CORONARY ARTERY DISEASE DETECTED BY MYOCARDIAL PERFUSION SCINTIGRAPHY IN PATIENTS OF ESSENTIAL HYPERTENSION WITH OR WITHOUT DIABETES MELLITUS

Owais Qadeer Gill

PINUM Hospital, Pakistan

Purpose: Aim of this retrospective study was to find prevalence of coronary artery disease (CAD) in hypertensive patients with or without diabetes mellitus.

Materials and methods: Data of patients having essential hypertension (n=931) referred to PINUM for myocardial perfusion scintigraphy (MPS) was analyzed. This data was divided into two groups: HDM group contains data of patients having hypertension with diabetes mellitus (n=456, 48.9% of total, M: F=245:211). While data of patients having hypertension without diabetes mellitus was placed in H group (n=475, 51.0% of total, M: F=254:221). Mean age was 52.4 + 10.2years in HDM group and 48.7 + 10.9years in H group. Duration of hypertension was 5.2 + 5.0years in HDM group and 5.6 + 5.5years in H group. Duration of diabetes mellitus was 7.0 + 5.8years in HDM group. Each group was divided into subgroups based on gender, clinical presentation and age. Patients with perfusion defects on MPS were considered to have CAD.

Results: Prevalence of CAD is higher in HDM group than H group subjects (47.8% vs. 30.1%; p<0.001). Prevalence of CAD is higher in males than females in HDM (53.9 % vs. 40.8%) and H groups (39.4% vs. 19.5%) respectively. The difference of prevalence of CAD in HDM and H groups is more marked in females (40.8% vs. 19.5%; p<0.001) than males (53.9 % vs. 39.4%; p=0.001). Prevalence of CAD in patients with typical presentation is not statistically significant in HDM and H groups (72.3% vs. 68.4%; p=0.645), while in subjects with atypical presentation, prevalence is significantly higher in HDM than H group (40.8% vs. 26.8%; p<0.001).

Conclusion: Prevalence of CAD is higher in the HDM group than the H group. Prevalence of CAD is higher in males than females in both groups. Prevalence is almost similar in patients with typical presentation in both groups. While with atypical presentation, prevalence of CAD is significantly higher in HDM group. Prevalence of CAD increases with age in both groups. However in females, this increase in prevalence with age is markedly slower till the age of 65years. After 65, prevalence of CAD in females approaches to that in males.