Abstract

Title: Baseline risk factors for coronary heart diseases in Kochi

India is currently witnessing a sharp rise in coronary heart diseases. The objective of the study was to address the association among dietary, lifestyle factors and CHD risk factors in Kochi, Kerala.

The data was collected from 350 cases who had experienced a first event of coronary heart disease and 100 controls in the age group 25-79 years as part of hospital based case-control study.

The incidence of CHD was significantly (p<0.01) high among males than females. As for educational status the highest percentage (48.60%) of the victims of CHD had only primary education. Irrespective of the gender the incidence of CHD was significantly high (p<0.01) among the low income group. With respect to personal habits, current smokers reported to have extremely high risk of CHD followed by ex-smokers. As indicated by the anthropometric data majority of the CHD males (34.40%) had normal BMI (20-23) followed by obesity (26.60%) and overweight (22.50%). Obesity was more among females (34.9%).

The biochemical parameters showed a significantly (p<0.01) higher prevalence of CHD among men (28.30%) and women (34.90%) having a high serum cholesterol level (>240mg/dl). Among the CHD sample, 63.10 percent
and 36.90 percent had myocardial infarction and unstable angina respectively. Hypertension was present in 40.30 percent CHD subjects and diabetes in 36.60 percent. Family history of CHD was observed more in the CHD subjects than non CHD.

When the relative risk of CHD with food consumption pattern was studied, there observed an increased risk of CHD with increased consumption of meat, fish, egg, fats and oils in males and consumption of meat, fish and oil in females. Regarding nutrient intake protein, carbohydrate, cholesterol and potassium were pivotal in distinguishing between the cases and control in female subjects. Whereas βcarotene and vitamin C were pivotal in distinguishing between cases and control in males. Multiple regression analysis showed highly significant (p<0.01) positive correlation between age, low educational status, low income level, weight, smoking, total cholesterol, LDLc, triglyceride, systolic blood pressure, diastolic blood pressure , and CHD in male. While age, total cholesterol, triglyceride , systolic blood pressure, diastolic blood pressure found to be strong predictors of CHD in female.

**Key words:** Coronary heart disease, myocardial infarction, unstable angina, risk factors