

THE RELATIONSHIP OF REPORTED PARENTAL HISTORY
AND RELATIVE RISK OF CORONARY HEART DISEASE

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If established, an independent effect of family history on coronary heart disease has at least two important implications. First, an independent effect of family history on coronary heart disease would indicate that genetic or familial mechanism operating in modes other than via known risk factors are involved in the onset of the disease. Second, those with a positive family history would be identified as being at excess risk for heart disease and in need of preventive efforts regardless of other coronary risk factors.

The relationship of a reported parental history of coronary heart disease to relative risk of coronary heart disease was determined retrospectively by comparing 168 individuals suffering from coronary heart disease, with 150 age and sex matched healthy controls. They were interviewed for a positive family history of coronary heart disease which was defined as, having at least one first-degree relative who suffered from heart disease morbidity or mortality.

Adjustment was made for the confounding effect of other risk factors found to be associated with the prevalence of parental history of coronary heart disease. This was done by excluding those with risk factors of hypertension and/or diabetes mellitus and/or hypercholesterolaemia and those with family histories of these disease conditions.

Relative risk was analyzed by Mantel-Haenzel chi-square analysis.

An odds ratio of 2.5 is observed for 29-49 year old individuals. For those 50 years and above the odds ratio is 1.8. The overall odds ratio was 1.9.

This indicates that a reported history of parental coronary heart disease has a direct association with symptomatic coronary heart disease which cannot be explained by the concomitant effect of other risk factors examined in this study. These findings are comparable to those of Nora, et al (1980) Tenkate, et al (1982) and Hopkins, et al (1984).

References

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