Dr. Shanthi Mendis

TRACE CLEMENTS IN ATHEROSCLEROSIS

1.1 Analysis of trace elements in atherosclerotic lesions.

Magnesium, Calcium, Manganese and Zinc concentrations have been analysed in atherosclerotic lesions from aort.as obtained at entopsy from accident victims. There was no significant difference in the concentration of calcium and magnesium and manganese concentrations in atherosclerotic lesions of different grades. However the mean zinc concentration of fibrous plaques (0.21 ± .18 ppm) was higher when compared with the mums concentration of zinc in (0.1± .17) normal tissue.

CORONARY LUART DISEASE AND RISK FACTORS IN THE GENERAL POPULATON

2.1 Prevalence of symptomatic coronary heart disease in a rural population

The prevalence of Coronary heart desease in a rural population is Sri Lanka has lutherto not been studied. A survey was carried out in Wargampaha village in Mahiyangana. 250 households were randomly selected from the electoral list. The participation rate was 78 percent. 290 males and 250 females between 30 and 70 years of age took part in the study. Standard procedures were used to assen the history of Cl+D and electrocardiogram. Symptomatic coronary heart disease was arbitrarily defined as angine pectosis pain of possible myocardial infarction, with resting ECG changes of ischaume. ECG abnormalities were defined as minnesota coder 1:1-2 (major Or/Qs), or 7:1 (left bundle branch block), or 1.3 (minor Q/QS) or 4:1-3 (St depression), or 5:1-3 (T wave flattering/inversion).

The overall percentage prevatence of symptomatic coronary heart disease was 7.9, percent for males and 6.5 percent for females.

2.2 The relationship of reported parental history and relative risk of coronary heart disease.

The relationship of a reported parental history of coronary heart disease and relative risk of coronary heart disease and 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 and 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 Cypertension and/or chabetes mellitus, and/or hypercholesterolaemia and those with family histories of these conditions. Relative risk was analyzed by Mantal-Haenzel Chisquere analysis.

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

2.3 Hypertension in a rural community in Central Province in Sri Lanka.

The results of a population survey of blood pressure is the adult residents of a village in the Central Province in Sri Lanka was completed. A total of 564 persons 273 males and 291 females aged 20 years and over were screened by visiting households. 80 percent of the total adult

village population was examined. 8.79 percent of males and 6.5 percent of females had a diastilic blood pressure 95-109 mm Hg. 2.9 percent of males and 2.75 percent of females had a diastolic blood pressure of 110 mm Hg or above. 43 percent of this population had never had their blood pressure measured previously. The overall prevalence of hypertension was 9.6 percent using the criterion 160/95 mm Hg.

ATHEROSCLEROSIS OF THE AORTA

3.1 Extent of Athesosclerosis of the aorta in males.

Autopsy specimens of discending thorain and abdominal aortas were collected from 108 males subjects dying of accidents. Over a 2 year period. The area of the intima covered by each type of atherosclerotic lesion was estimated as the percentage of the total intimal area of the artery and the sum of these figures was taken to represent the total extent of atherosclerosis.

Up to the age of 40 years fatty stucks occupied 12% of the surface. After 40 years it decreased gradually during the next 20 years. by 60 years of age it reached 4-5 percent and persisted at this fevel thereafter. The area occupied by fibrous plaque was small (less than 15%) until the age of 40 years. Then there was a swift increase up to 70 years of age. At 70 years of age the area occupied by phrous plaque was 55%.

The extent of complicated lesious remained less than 1% up to 50 years of age. Between 50 and 70 years there was a rapid increase and the average area affected was 4 percent of the intimal surface. Lesions with calcifications appeared in the 4th decade and the extent involved increased rapidly after 60 years of age to an average of 5-8% by 70 years of age. The total extent of atherosclerois increased slightly from 20-40 years of age within a range of 10-15 percent of the intimel surface. After 40 years

there was a steady increase amonuting to 6-8% of the arterial surface per 10 years period. In the abdominel aorta the increase of atherosclerotic lesions by an early and the area occupied by all forms of lessions was grcater than in the thorain aorfa.