A-27 Plasma ascorbic acid level in ischaemic heart disease

Shanthi Mendis[1], R Sivakanesan[2], G M P Jayalath[1], M A I Fonseka[1], S Namonithy[2]
[1] Dept of Medicine [2] Dept of Biochemistry, University of Peradeniya

The objective of this study was to determine whether vitamin C status as measured by plasma ascorbic acid concentration is related to coronary risk in Sri Lankans. 100 patients (81 males) with a definite diagnosis of ischaemic heart disease (IHD) attending the Peradeniya Teaching Hospital Cardiology clinic were recruited to the study. Controls consisted of 51 age and sex matched healthy subjects drawn from the general population. While none of the controls were on medications 96% of patients were on medications. The phosphotungstate acid method used in this study does not assay the dihydroascorbic acid levels. However the level of ascorbic acid is likely to indirectly reflect the vitamin C status of the subjects.

The mean (SD) of plasma ascorbic acid level (mg/dl) in IHD patients was significantly lower compared to control subjects; 0.42 (0.19) vs 0.86 (0.56) $p < 0.001$. There was no significant difference in the plasma vitamin C levels of males and females among IHD patients or in controls.

24% of patients gave a history of consuming fruit one or more times daily. None of the controls were in this category. 60% of patients and 80% of controls gave a history of eating fruit one or more times a week. Even in IHD patients who consumed fruit daily, the mean plasma ascorbic acid level was significantly lower than in control subjects ($p < 0.01$).