

Preliminary Study on Prevalence of Diabetes mellitus and Metabolic Syndrome among Adults Aged above 20 Years in Point Pedro and Karaveddy Medical Officer of Health Areas during Year 2011

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Abstract: The aim of this study was to assess the prevalence of diabetes mellitus (DM) and metabolic syndrome (MS) among adults aged above 20 years in Point Pedro and Karaveddy MOH areas of Jaffna district. This was a community based cross sectional descriptive study. A total of 115 subjects were included in this study using multistage random sampling. Forty eight percentages (56) of samples were males. The prevalence (95% confidence interval) of DM for adults aged ≥ 20 years was 15.7% and it was 12.5 and 18.6% among males and females respectively. Difference in prevalence of DM between males and females was calculated using Chi-square test. It was not significant ($p=0.36$). Of the total population 8.7% had impaired fasting glucose level, and it was 7.1 and 10.2% among males and females respectively. Of the diabetic subjects 33% were previously undiagnosed. Overall, 24.4% had some form of dysglycaemia, and it was 19.6% among males and 28.8% among females. There was a linear relationship between the age and percentages of DM ($R^2=0.987$, $p=0.0001$). The subjects in the age group of 70-79 and 60-69 years showed high percentages of diabetes (33.3% and 26.9% respectively). DM was more common among obese (33.3%) than overweight (13.3%) and normal individuals (15.5%). MS was present in 14 out of 115 subjects. The prevalence (95% CI) of MS of overall, males and females were 12.2%, 3.5%, 20%, respectively. Difference in prevalence of MS between males and females was calculated using Fisher's exact test. It was significant ($p=0.009$). The subjects in the age group of 40-49 and 50-59 and 60-69 years showed higher proportion of MS (21.4%, 35.7% and 28.6%, respectively). Proportion of central obesity was 36.5% in general population and was higher in females (61%) than in males (10.7%). Hypertension was high in the diabetics (61.1%) than in general population (20.9%). Of the total population 79.1% had dyslipidaemia, and it was 83.3% among the diabetics. Decreased HDL level was observed in dyslipidaemia. About 17.4% of general population had both hypertension and dyslipidaemia while it was observed in 44.4% of diabetics. These findings present an alarming situation on the two important health conditions among the people of Jaffna. These preliminary prevalence data can be utilized to conduct a further detail study to determine the prevalence of two conditions in Jaffna District.

Keywords: Diabetes mellitus, Dyslipidaemia, Fasting plasma sugar, High Density Lipoprotein, Metabolic syndrome, Obesity