

PP61

Comparison of C-reactive protein levels with insulin resistance and selected parameters of adiposity in a rural diabetic population

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Objectives: Objective of this study was to compare the C-reactive protein levels with insulin resistance and parameters of adiposity in a rural diabetic population.

Methods: Fifty diabetic subjects (20 Males, 30 Females) from Elehera regional secretariat area were recruited. Blood samples were collected for the analysis of C-reactive protein (CRP), fasting blood sugar (FBS), and fasting insulin level assays. Insulin resistance (IR) was calculated using the HOMA-IR (Homeostasis model assessment) equation. Anthropometric measurements (height, weight, waist circumference, hip circumference, mid-thigh circumference) and body fat measurements [body fat percentage (BF%), visceral fat level (VF), subcutaneous fat percentage (SCF%)] were taken as parameters of adiposity.

Results: Mean age of female and male subjects were 42(\pm 5) and 44 (\pm 4) years respectively. When the whole population was divided into two groups based on their CRP cut-off levels, 26 subjects had CRP levels above 0.6 mg/L. None of the measured parameters of adiposity were significantly different between two groups based on the level of CRP. However, insulin resistance was significantly different between two groups (IRCRP<0.6= 3.69 (\pm 1.8), IRCRP>0.6= 6.1 (\pm 3.3), $P=0.02$). Waist-to-Hip ratio, BF%, VF and SCF% were significantly different between male and female subjects and BMI, IR and CRP levels didn't show a significant difference.

Conclusions: According to findings of current study, only IR levels were significantly different among subjects with high and low CRP levels based on current cut-off value. Since there were significant differences of measures of adiposity between males and females the study should be repeated with a larger sample size.

PP62

Prevalence of anemia in patients with Type 2 Diabetes mellitus

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Objectives: Our study aimed to determine the prevalence and causes of anemia among patients with Type 2 Diabetes mellitus (T2DM) and describe the relationship between anemia and associated factors such as gender, age, diet control, duration of diabetes and type of drugs used for control of diabetes.

Methods: The study was conducted at the diabetic clinic at the Family Medicine Center, University of Sri Jayewardenepura. One hundred and two adult patients diagnosed with T2DM were included. Full Blood Counts were performed and patients with hemoglobin of less than 12g/dl (females) and 13g/dl (males) were identified, red cell indices analyzed and serum ferritin level performed. Further data regarding duration of disease, medication, serum creatinine, presence /absence of renal disease, presence of complications of diabetes, most recent fasting blood glucose level, HbA1C were obtained from questioning patients and by perusing clinical records.

Results: Mean hemoglobin was 11.98 \pm 1.79 g/dl (12.92 \pm 2.49 g/dl in males, 11.60 \pm 1.24 g/dl in females). 35.29% (36/102) of patients with T2DM were identified as anemic. 16.67% (5/30) of the male patients and 43.06% (31/72) of the female patients were anemic. Iron deficiency anemia was present in 11.11% (4/36), hemoglobinopathy in 11.11% (4/36) and anemia of chronic disorder in 77.78% (28/36) (ferritin >18ng/ml)