

S-CAGE-Study of C - reactive protein and glycosylated haemoglobin in adult type 2 diabetes mellitus

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Abstract

Study of C - reactive protein and Glycosylated Haemoglobin in Adult Type 2 Diabetes Mellitus (S-CAGE). Diabetes Mellitus (DM) is a syndrome characterized by hyperglycemia and disturbances of carbohydrate, fat and protein metabolism associated with absolute or relative deficiencies in insulin secretion and / or insulin action. T2DM & atherosclerotic cardiovascular disease have common antecedent. Markers of inflammation can predict coronary heart disease & it is also raised in patients with T2DM.

Aims and objectives: To assess levels of HbA_{1c} and CRP in T2DM patients & correlate HbA_{1c} & CRP as a marker of systemic inflammation in T2DM patients.

Methods and materials: Cross-sectional study conducted among 100 T2DM patients attending Diabetes clinic and admitted in the Medicine ward, RIMS hospital. Estimation of HbA_{1c} was done by Fast Ion Exchange Resin Separation Method & CRP was done by Latex Agglutination Slide Test.

Results: 51 CRP +ve against 49 CRP -ve cases found. The mean HbA_{1c} level was 8.04 ± 1.74 %. Correlation between CRP and HbA_{1c} found highly significant ($P=0.000$). These results suggest that at higher levels of HbA_{1c} the percent of people with CRP +ve (≥ 0.60 mg/dl) is significantly higher. Association of CRP and type of therapy found to be highly significant ($\chi^2 = 15.641$). Positive correlation demonstrated between HbA_{1c} and TC, TG and LDL while negative correlation shown with VLDL & HDL.

Discussion: This study demonstrated that higher HbA_{1c} is significantly associated with elevation of CRP. These results imply a significant relation between inflammation and glycated haemoglobin level in patients with established diabetes.

Biography

Gomi Basar has completed his MBBS at the age of 24 years from Kottayam Medical College Kerala, Mahatma Gandhi University and currently pursuing Post Graduation in Biochemistry from Regional Institute of Medical Sciences, Manipur University Imphal. He is currently doing research project funded by Department of Biotechnology Government of India on "Serum Gamma Glutamyl Transferase in Metabolic Syndrome" in RIMS, Imphal