

Study of serum triglyceride and glycosylated hemoglobin in type II diabetes mellitus with hypertension

O Sanahanbi, Izora Trudy Marak and Th Ibetombi Devi

Department of Biochemistry, Regional Institute of Medical Sciences, India

A total of 50 patients already diagnosed as Type II DM with hypertension, attending diabetic clinic, RIMS Hospital as well as admitted in medicine ward included in the present study. Another 30 healthy age and sex matched subjects who were free from any systemic diseases were taken as control. Fasting blood glucose was estimated by glucose oxidase peroxidase method as described by Trinder P, 1969. Serum triglyceride was done by method of Bucole G and Harold D 1973, and glycosylated haemoglobin by fast ion exchange Resin Separation method as described by Goldstein DE et al 1994. Thirty four (34%) percent of hypertensive diabetic cases were in the age group of 51-60 years followed by 30% in the age group of 41-50 years, 18% in 61-70 years and 8% above 70 years. The mean \pm SD concentration of fasting serum triglyceride (TG) was significantly higher ($P < 0.001$) in study group (168.89 ± 57.74 mg/dl) as compared with control cases (72.97 ± 12.77 mg/dl). Maximum number of cases (33) was having serum TG level more than 170 mg/dl. There was a positive correlation between serum TG and HbA_{1c} among the study group. As percentage of HbA_{1c} increased, the value of serum TG also increased. Significant increase ($P < 0.001$) of HbA_{1c} was observed among DM cases compared to controls. Thirty cases (30) belong to poor glycermic status as indicated by HbA_{1c} (6-9%) whereas 15 cases and 3 cases belong to worst and good glycermic control with HbA_{1c} level $> 9\%$ and 6% respectively. The complications were common with poor and worst glycermic controls. This study shows that serum TG increases in Type II DM with hypertension, and is positively correlated with HbA_{1c} levels.

sanahanbi@globizs.com