



## ▼ POST GRADUATES ABSTRACTS

### PG -21: FASTING AND POSTPRANDIAL LIPID PROFILE IN TYPE 2 DIABETES MELLITUS – A COMPARATIVE STUDY

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**Introduction:** Type 2 Diabetes Mellitus (DM), is characterized by a relative insulin deficiency or insulin resistance associated with a cluster of metabolic abnormalities. India leads the world with largest number of diabetic patients and is often referred to as the diabetes capital of the world. The estimated number of patients with diabetes in India was 62.4 million in 2011 which is projected to rise to a staggering 101.2 million by 2030. The lipoprotein abnormalities commonly present in type 2 diabetes, include hypertriglyceridemia, increased VLDL, LDL-C, decreased HDL-C & delayed chylomicron clearance and remnant accumulation but its pattern is also influenced by patient ethnicity. Diabetes and dyslipidemia commonly coexist in India there is a lack of country wide data to understand the pattern of dyslipidemia and to accurately assess the control of lipids in this population in a real world setting. The main aim of our study is to analyze fasting and post prandial lipid profile (by OFTT) in type 2 diabetic patients; (b) compare fasting lipid profile with post prandial lipid values and (c) motivate patients for exercise therapy

and to analyze the lipid profile after three months of follow up.

**Methodology:** The present study was initiated with 100 in- patients who were screened to short list those based on the inclusion criteria i.e Type 2 diabetic mellitus between age groups of 30 – 60 years on statin therapy and newly diagnosed with Dyslipidaemia. After sampling on fasting for analysis they were provided with standard meal (devised in this research study) of 4 slices of bread with 30 gms butter and 250ml of milk. Post-prandial readings were taken at 3 hours and 6 hours. Based on these three sets of data one at fasting and 2 at post prandial period, about 25 per cent (24 patients) study populations with deranged lipid profile who were already on statins and those newly diagnosed in this study recommended for statin therapy were followed up after 3 months with exercise - aerobic.

**Results:** The finding reveals that none of the factors could be correlated with age, occupation and gender except the TGL, VLDL and HDL. The levels of

TGL, VLDL and HDL after meal were increased and statistically significant compared to corresponding fasting lipid values. Meal did not affect the HDL concentration in this group and remained nearly same. Patients who were encouraged to do exercise exhibited no statistical significant changes in their fasting and post post-prandial TGL level. However, although the levels of VLDL and HDL after meal were increased and their changes were statistically significant.

**Conclusion :** Postprandial lipid abnormalities are profoundly significant in Type 2 diabetic individuals especially TGL and VLDL which increases the risk factor for developing CVD. Also exercise has an affect but in our study it didn't significantly alter the lipid parameters.

**Keywords:** Type 2 diabetic; dyslipidaemia. Lipid profile; statin therapy; exercise.