A Study of Lipid Profile in Type 2 Diabetic Punjabi Population

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Abstract

Aims: The purpose of the study was to observe the lipid profile of type 2 diabetics in the male Punjabi population. *Method(s)*: A total of 120 Type 2 diabetic men with an age range from 30 to 70 years volunteered to participate in this study. The fasting blood sugar (FBS) & lipid profiles were recorded with standard procedure. *Results*: The mean age and FBS were 50.3 ± 11.8 years and 135.1±27.4 mg/dl respectively. There were 59% subjects with high total cholesterol (TC) levels and 98% were having increased LDL levels. 89% of the subjects were found with lower HDL level. *Conclusion*: It is concluded from the results of the present study that in type 2 diabetics dyslipidaemia was very common especially raised LDL levels. Results strongly suggest that further investigations should relate the effects of dyslipidaemia and abnormalities of insulin resistance in type 2 diabetics. And ethnic specific patterns of lipid profile in type 2 diabetics regardless of their glucose levels, suggests that ethnic-specific strategies and guidelines on risk assessment and prevention of CVD due to dyslipidemia are required.

Keywords: CVD, FBS, Dyslipidaemia.

Introduction

Dyslipidemia is one of the major cardiovascular disease (CVD) risk factors and plays an important role in the progress of atherosclerosis, the underlying pathology of CVD. The prevalence of dyslipidemia in type 2 diabetes is double with respect to the general population *(Haffner, 1998)*. These are more complex abnormalities that are caused by the interrelation among obesity, insulin resistance and hyperinsulinism *(Burstein et al., 1970 & American Diabetes Association, 1998)*. According to *Freedman et al (1999)*, when the overweight subjects were compared with their respective thinner counterparts, they presented 2.4 to 7.1 times higher probability to have an elevated total cholesterol, LDL cholesterol, triglycerides and blood pressure as well as 12.6 times higher probability to have hyperinsulinemia. It is worth to emphasize that the fatty tissue is exclusively related to risk factors, such as the altered insulin and lipid profile, which can contribute to the development of the insulin resistance syndrome, which comprises several risk factors for the emergence of cardiovascular complications *(Gower, 1999)*. In patients with type 2 diabetes, which is equivalent to CHD *(Juutilainen et al, 2005)*, it is most commonly characterized by elevated TG and reduced HDL-C *(Goldberg 2001)*. These abnormalities can be present alone or in combination with other metabolic disorders. The prevalence of dyslipidaemia varies depending on the