Low HDL-cholesterol in offspring of diabetics

There was no statistically significant difference in plasma triglyceride or total cholesterol between the two groups. LDL-cholesterol was marginally higher in cases compared to controls (p=0.046). The cases had lower HDL-cholesterol (1.09±0.22 vs 1.21±0.3, p <0.001) and higher triglyceride to HDL-cholesterol ratio (3.0±1.7 vs 2.6±1.7, p =0.013). Percent body fat was not statistically different between cases and controls. Table 2 compares the number of subjects with abnormal lipid levels. The number of subjects with low HDL-cholesterol (<1.03 mmol/l for age >18 and 0.9 mmol/l for age ≤18) was higher in cases compared to controls (p=0.015). The probability (based on odds ratio) of HDL below limit was almost two times higher for cases compared to controls.

A sub-analysis of the data was carried out based on the age of the subjects (age up to 24 years and ≥24 years) (Table 3). In the younger age group (<24 years), HDL-cholesterol was significantly lower (p=0.017) and TG to HDL ratio was significantly higher (p=0.02) in cases compared to controls. AUC proinsulin/AUC C-