The prevalence of childhood obesity has risen dramatically in past several decades. Hormonal and genetic factors are rarely the cause of childhood obesity. Because obese children may suffer life long physical and emotional consequences, it is imperative to discuss prevention with parents during well-child examinations.

Objective: To determine obesity-related cardiovascular and lipid profiles in obese children and adolescents that were referred to the department of pediatric endocrinology in Emam Raza hospital, Mashhad, IRAN.

Methods: We studied fifty-two obese subjects, with mean age 10.46 ± 1.25 years old and associated BMI > 95 percentile for age, and twenty healthy, non-obese subjects (control groups) with mean age 10.68 ± 1.33 years old with normal BMI for age and sex. All subjects (obese and control groups) studies for left ventricular mass with Two-D and M mode echocardiography, blood pressure, and lipid profiles (total cholesterol, HDL, LDL, and triglycerides).

Result: Mean LV mass of 53.78 ± 9.68 gm/m² in fifty-two obese with mean body mass index of 28 ± 3.7 gm and total cholesterol of 203.38 ± 30.20 mg/dl, HDL 49.35 ± 8.9 mg/dl, LDL 127.9 ± 24.32, and triglycerides 145.51 ± 67.48 in males and 132.28 ± 65.84 in females. Versus to control subjects LV mass 25.47 ± 4.84 and normal limits of lipid profiles.

Conclusion: It is shown in this study that mean LV mass and frequencies of dyslipidemia have increased in obese children and adolescents. It can be suggested that evaluation of LV mass dyslipidemia should also be considered in the routine approach of obese children and adolescents.

Keywords: obesity, LV mass, lipid profiles, BMI.

Poster