Lipid and glucose profiles in obese Algerian children and adolescents:
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Introduction:

- Obesity constitutes a risk factor for several early-onset metabolic disorders. The problem is escalating in Africa, where the number of obese or overweight children and adolescents has increased by almost 50% since 2000 according to World Health Organisation (WHO data).

Objectives:

To determine the lipid and glucose profiles in Algerian children and adolescents with obesity, defined as body mass index (BMI) >97th centile according to WHO growth data.

Patients and methods:

Retrospective study of obese subjects aged 5-19 years without known type 1 or 2 diabetes or previous systemic illness, followed in a single center over a 10-year period. Auxological data were collected and compared against WHO reference information. Total cholesterol, high and low density lipoprotein (HDL and LDL), triglyceridemia and fasting plasma glucose (FPG) were measured.

Results:

During the period of January 2007-December 2018, 231 patients (102F:129M) presented with obesity of whom 50 (28F:22M) were enrolled in the study.

Discussion:

Hypo-HDL-cholesterolemia followed by hypertriglyceridemia are the most prevalent metabolic abnormalities in our study population, affecting up to a third of patients. While overt diabetes mellitus was not found, 10% of patients had impaired fasting glucose. To reduce the morbidity and mortality inherent to cardio-metabolic risk, it is essential to establish a national strategies to prevent and control obesity in Algerian children.