

# Obese Prader-Willi *versus* Obese controls: Metabolic Profile in Brazilian Patients

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## BACKGROUND

Prader-Willi Syndrome is a rare condition (1:15000) which starts with intense hypotonia in the first years of life to reach a condition of voracious appetite which leads to life threatening obesity. Obese Prader-Willi Syndrome (OPWS) patient has peculiar characteristics which could confer different metabolic profiles compared with obesity of other causes.

## OBJECTIVE

The aim of this study is to describe and compare the metabolic profile in obese patients and OPWS patients followed in a Pediatric Endocrinology outpatient unit.

## METHOD

We evaluated in a cross-sectional study 45 obese patients and 22 OPWS between 8 and 20 years old and compared them according to serum cholesterol, triglycerides, glycated hemoglobin (A1c) and fasting glucose levels. Values of LDL>130mg/mL, HDL<40mg/dL, triglycerides>150 mg/mL, A1c >5.7% and fasting glucose>100mg/dL were considered abnormal.

Table1. Characteristics of 67 patients

Mean age	14.1 (±3.2) years old
Z BMI	+3.1 (±0.6SD)
Gender	45 Male 22 Female

## RESULTS

Both OPWS and obese groups did not differ in sex, age and BMI Z-SCORE (Table1). Probably due to the low number of patients, there had been no significant difference between both groups about LDL, HDL and triglycerides levels. However, there was a significant difference ( $p<0,001$ ) in abnormal A1c between OPWS and obese patients (Graphic 1). Only 1 patient in each group had high fasting blood glucose.

## CONCLUSION

The comparison between obesity in PWS and in other patients shows that A1c tends to be higher in OPWS. The differences in lipid levels show a tendency of more elevated levels in OPWS but the number of patients is small to reach statistical significance.

Graphic 1. Lab Exams OPWS x Obese

