INTRODUCTION

- Second-generation antipsychotics (SGAs) have consistently been related to increased risk of metabolic adverse effects such as weight gain, dyslipidemia and insulin resistance [1].
- Pediatric patients seem to be at higher risk of such adverse effects than adults [2, 3].
- Few studies provide data on the long-term metabolic effects of SGAs in children and adolescents [3].

OBJECTIVE

The aim of this study was to provide information on the risk of developing clinically significant changes in weight and metabolic parameters in pediatric patients after three and six months of antipsychotic treatment.

METHODS

Naturalistic longitudinal observational study

SUBJECTS AGED < 18 years
(Any psychiatric diagnosis)

6 months of uninterrupted treatment with the same SGA

NAIVE

QUASI-NAIVE
(Prior exposure to antipsychotics ≤ 30 days)

OLANZAPINE
QUETIAPINE
RISPERIDONE

OUTCOME MEASURES

Clinically significant changes in weight and BMI:
- Weight gain ≥ 5%
- Weight gain ≥ 7%
- Increase ≥ 0.5 BMI Z-score

Percentage of patients with values of blood parameters fulfilling each one of the following criteria of being “At Risk for Adverse Health Outcome” [2]:
- Fasting glucose ≥ 110 mg/dL
- Fasting cholesterol ≥ 200 mg/dL
- LDL cholesterol > 130 mg/dL
- HDL cholesterol < 40 mg/dL
- Triglycerides ≥ 150 mg/dL
- Blood pressure > 90 percentile

RESULTS

SAMPLE
- 294 patients
- 61.62% male, Age: 14.48 ± 2.75 years.
- 45.8% naïve. 54.2% quasi naïve.
- Mean exposure time to antipsychotics: 5.39 ± 7.25 days.

BASELINE
- 160 patients on risperidone, 49 olanzapine, 46 quetiapine, 24 other antipsychotics.
- No significant differences in anthropometric or metabolic measures among antipsychotic groups.

3-MONTH AND 6-MONTH FOLLOW-UP

- At month 3: 70% of patients presented weight gain 5% and 67% ≥7%.
- At month 6: 42.8% of patients presented weight gain ≥5% and 72.25% ≥7%.
- No significant changes in percentage of patients with values of metabolic parameters (except for a significant increase in triglycerides p<0.05) or blood pressure suggestive of being “At Risk for Adverse Health Outcome”.

CONCLUSIONS

1. Most of the metabolic risk associated with the first six months of treatment with second generation antipsychotics in pediatric patients is clinically significant increases in body weight, rather than to changes in other metabolic parameters.

2. Most weight gain occurs within the first three months of treatment.

3. Olanzapine is associated with a greater percentage of patients with clinically significant weight gain within the first three months of treatment than risperidone or quetiapine.

REFERENCES


DISCLOSURES

Funding sources: Supported by Instituto de Salud Carlos III, Spanish Ministry of Economy and Competitiveness, Centro de Investigación Biomédica en Red, CIBERSAM, Autonomous Community of Madrid, I+D Biomèdic, 2012/001256 AGES (Madrid, Spain), Fundación Alicia Koplowitz and Fundación Mutua Madrileña. CM Díaz-Caneja has received a grant from Instituto de Salud Carlos III, Spanish Ministry of Economy of Competitiveness.

Disclosures: Dr. C. Arango has been a consultant to or has received honoraria from Astrazeneca, Bristol-Myers Squibb, Jansen-Cilag, Lundbeck, Otsuka, Pfizer, Schering-Plough. The rest of the authors declare no conflicts of interest.