

# METABOLIC RISK AFTER SIX MONTHS OF TREATMENT WITH SECOND-GENERATION ANTIPSYCHOTICS IN ANTIPSYCHOTIC-NAÏVE CHILDREN AND ADOLESCENTS

Díaz-Caneja, C.M. MD<sup>1</sup>, Giráldez-Quiroga, M. PharmD <sup>2</sup>, Merchán-Naranjo, J. MSc<sup>1</sup>, Pina-Camacho, L. MD<sup>1</sup>, Tapia-Casellas, C. MSc<sup>1</sup>, Rodríguez-Latorre, P. BSc<sup>1</sup>, Arango, C. MD, PhD<sup>1</sup>

1. Child and Adolescent Psychiatry Department, Hospital General Universitario Gregorio Marañón; Centro de Investigación Biomédica en Red de Salud Mental, CIBERSAM; Instituto de Investigación Sanitaria Gregorio Marañón, IISGM; Madrid, Spain. 2. Pharmacy Department, Hospital General Universitario Gregorio Marañón; Madrid, Spain.

e-mail : covadonga.martinez@iisgm.com

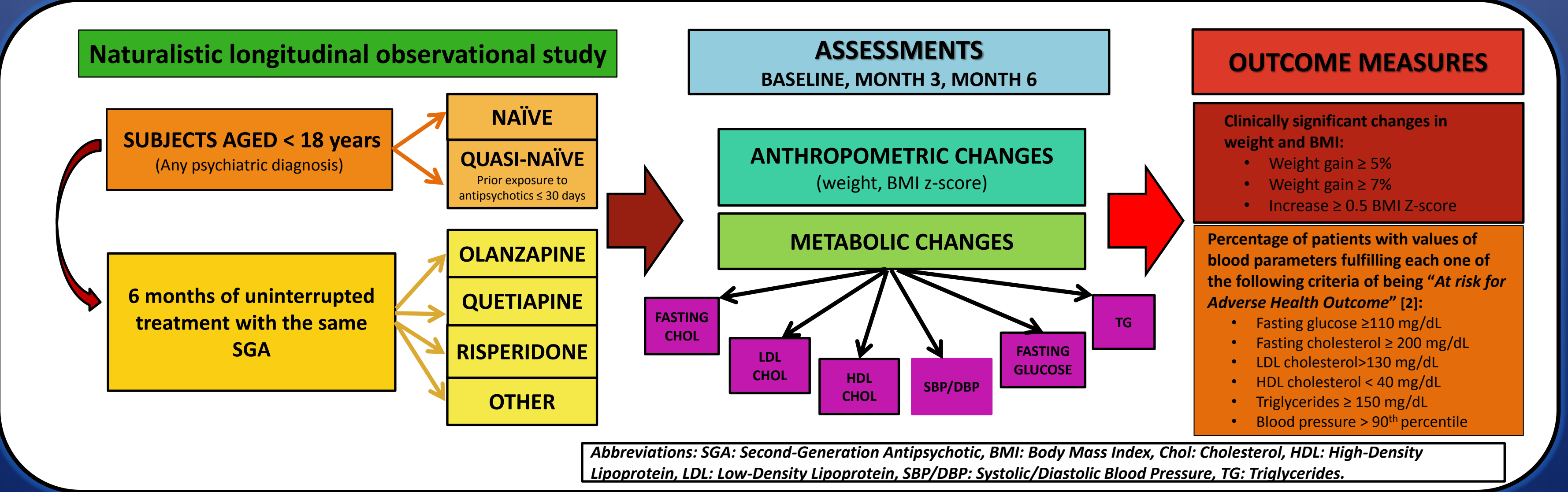
## INTRODUCTION

- 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



## RESULTS

### SAMPLE

- 284 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

- 165 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: 76% of patients presented weight gain≥5% and 67% ≥7%. Olanzapine was associated with greater percentage of patients with clinically relevant weight gain (see Table 1).
- At month 6: 82.8% 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”.

	OLANZAPINE N (%)	QUETIAPINE N (%)	RISPERIDONE N (%)	p
Weight gain ≥5% at month 3	37 (94.87)	30 (75)	88 (72.13)	0.02
Weight gain ≥5% at month 6	24 (92.31)	28 (84.85)	75 (80.65)	N.S.
Weight gain ≥7% at month 3	34 (87.18%)	27 (67.50)	76 (63.2)	0.02
Weight gain ≥7% at month 6	22 (84.62)	24 (72.73)	66 (70.97)	N.S.
Increase ≥0.5 in BMI Z-score at month 3	12 (30.77)	6 (15)	36 (29.51)	N.S.
Increase ≥0.5 in BMI Z-score at month 6	10 (38.46)	7 (20.59)	31 (33.33)	N.S.

Table 1: Clinically significant changes in body weight and BMI z-score after three and six months of antipsychotic treatment  
Abbreviations: N.S.: Not significant differences among antipsychotic groups, BMI Z-score: Body Mass Index Z-score

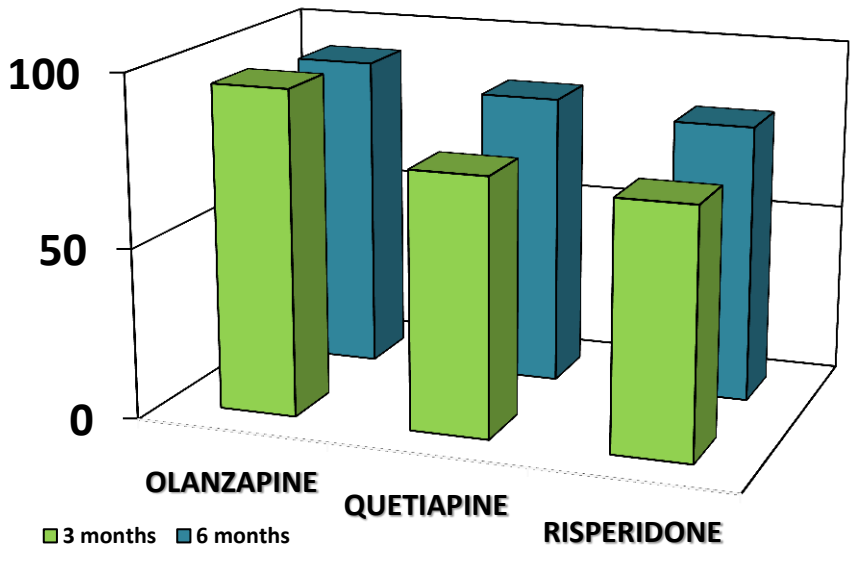


FIGURE 1: Percentage of patients presenting weight gain ≥5% at month 3 and 6.

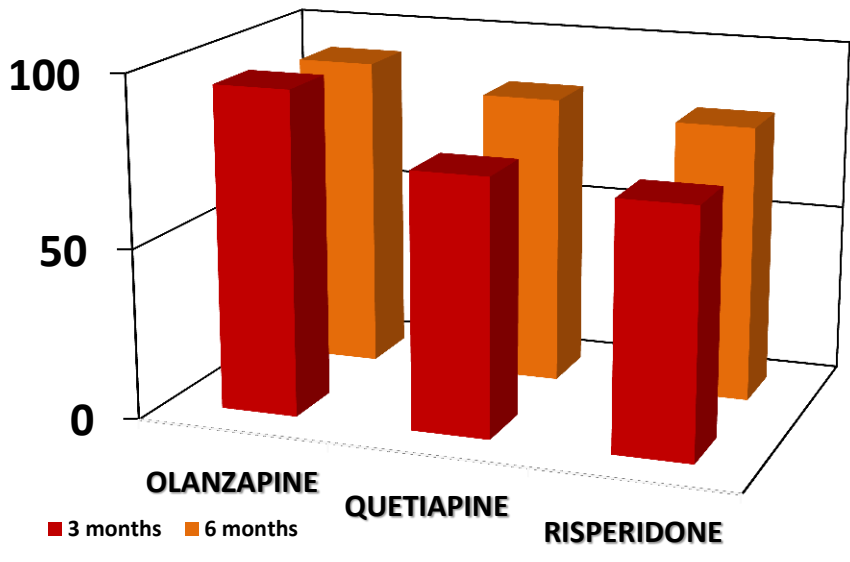


FIGURE 2: Percentage of patients presenting weight gain ≥7% at month 3 and 6.

	BASELINE N (%)	3 MONTHS N (%)	6 MONTHS N (%)	p
Fasting glucose ≥110 mg/dL	2 (0.3)	7 (1.1)	4 (0.6)	N.S.
Total cholesterol ≥ 200 mg/dL	15 (2.3)	21(3.3)	15 (2.3)	N. S.
LDL cholesterol >130 mg/dL	12 (1.9)	17 (2.8)	7 (1.1)	N.S.
HDL cholesterol <40 mg/dL	42 (6.8)	33 (5.4)	37 (6)	N.S.
Triglycerides ≥ 150 mg/dL	12 (1.9)	17 (2.7)	19 (3)	0.02
Blood pressure ≥ 90 <sup>th</sup> percentile	46 (7.5)	40 (6.6)	27 (4.4)	N.S.

Table 2: Percentage of patients with values of metabolic parameters and blood pressure fulfilling Connor’s Criteria of being “At Risk of Adverse Health Outcome” at month 3 and 6.  
Abbreviations: N. S.: Not significant differences from baseline, LDL: Low Density Lipoproteins, HDL: High Density Lipoproteins.

## CONCLUSIONS

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

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## DISCLOSURES

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