INTRODUCTION

- Psychiatric patients, especially psychotic patients, have an increased risk of weight gain and metabolic disturbances, especially after the first months of treatment with second-generation antipsychotics (SGA).¹
- Paediatric patients are more vulnerable to metabolic dysregulation², with an increased risk for adverse health outcome³.
- There are insufficient data on long-term risk for metabolic disturbances and adverse health outcome in this population group.

METHODS

Non-controlled longitudinal observational study

- Subjects aged <18 years (any psychiatric diagnosis)
- 12 months of uninterrupted treatment with the same SGA

Assessment

- Anthropometric changes (BMI z-score)
- Metabolic changes
  - TG
  - Glucose
  - LDL
  - HDL
  - SBP/DBP

Outcome measures

- Clinically significant weight gain ≥ 0.5 increase in BMI z-score (baseline → 6 → 12 months)
- Number of patients at risk for adverse health outcome

RESULTS

Study sample

- 61 subjects, 14.1 ± 3.3 years of age (range 4-17 years), 79% males, 92% caucasian
- 55.7% with diagnosis of schizophrenia or other psychotic disorder
- 54% naïve/46% quasi-naive (mean previous cumulative dose, 17.16 ± 3.3 years of age (range 4-17 years), 79% males, 92% caucasian
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Baseline

- BMI z-scores and metabolic measurements within normal limits, no significant differences between treatment groups
  - Except DBP ≥ significantly higher in the olanzapine group (p=0.05)
- Six patients (10.2%) met criteria of being at risk for adverse health outcome
  - No significant differences between treatment groups

Changes baseline → 12th month

- BMI z-scores increased significantly in all SGA treatment groups (p<0.001)
  - Mean increase z-score 0.95 ± 1.25SD
  - Increase significantly greater within the first six months in all SGA treatment groups: 0.96 ± 1.19SD (p<0.001)
  - The increase did not continue between the 6th and 12th month
- A “clinically significant” weight gain (≥ 0.5 increase in BMI z-score) was observed in 57% of the total sample
  - Increase significantly higher in the olanzapine group ≥ 89% of patients (p=0.05)
- No significant changes in metabolic measurements
  - Except “total cholesterol” > significantly increase, mean 16.50 ± 6.03 mg/dL in the quetiapine group (p<0.05)
- The number of patients at risk for adverse health outcome increased significantly (p<0.05), from 6 (10.2%) to 14 (23.5%) patients
  - No significant differences between treatment groups

DISCUSSION

Weight and metabolic profile should be monitored closely in children and adolescents treated with SGA, especially in the first six months, because of the long-term risk for adverse health outcome.

REFERENCES


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