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METABOLIC AND NEUROENDOCRINOLOGIC EFFECTS OF LONG-ACTING INJECTABLE RISPERIDONE UNDER REAL-LIFE CONDITIONS

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Objective: Present study focuses on metabolic and neuroendocrinologic effects of long-acting injectable risperidone (LAIR) treatment in a naturalistic sample of patients with schizophrenia spectrum disorders.

Method: Twenty three outpatients with schizophrenia or schizoaffective disorder (ICD X) (age 32.3±6.5years, illness duration 8.7±5.1 years, PANSS 78.1±14.7) were included. At the time of evaluation the patients were treated with LAIR for 1.4±0.7 years, average dose 38.6±9.9mg. Total duration of antipsychotic therapy was 8.0±4.8 years. Control group (n=23) were healthy volunteers matched by age, sex and education.In the morning serum we measured leptin, prolactin, cortizol, IGF1, T4, FSH, LH, HbA1c, total cholesterol, HDL, LDL and triglicerides. Both groups were tested by oral glucose load (OGTT), with measuring insulin levels and anthropometric parameters.

Results: In comparison to control group, the patients had higher BMI ($p < .001$), waist circumference (WC, $p = .004$), increased leptin ($p = .013$), prolactin ($p < .001$), triglycerides ($p = .029$) and fasting glucose ($p = .004$). After controlling for BMI, WC and sex, only prolactin ($p < .001$, $\eta_p^2 = .50$) and leptin ($p = .040$, $\eta_p^2 = .13$) were significantly increased in the patient group.

Conclusion: This is the first study of LRAI effects on metabolic and neuroendocrine parameters. Our cross-sectional study has shown that the most consistent side effects of LAIR were increased prolactin and leptin, while other deviations might be attributed to confounding covariates. Whether pharmacokinetic and pharmacodynamic advantages of LAIR over oral drug formulation are accompanied with favorable metabolic and neuroendocrine profile remains to be assessed by head to head studies.

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