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Introduction: The changes in metabolic parameters in olanzapine-treated adolescents were examined.

Methods: Data from 454 adolescents (13–18, mean=15.9 years) with schizophrenia or bipolar I disorder were pooled from 4 olanzapine (2.5–20.0mg/day) studies (4–32 weeks). Changes in metabolic parameters in adolescents were compared with those of olanzapine-treated adults (pooled from 84 clinical trials); changes in weight and BMI were compared with US age- and sex-adjusted standardized growth curves.

Results: Olanzapine-treated adolescents had significant increases from baseline-to-endpoint in fasting glucose (p=.021); total cholesterol, LDL, and triglycerides (p<.001); and significant decreases in HDL (p<.001). Significantly more adolescents gained >=7% of their baseline weight versus adults (65.1% vs. 35.6%, p<.001); mean change from baseline-to-endpoint in weight was significantly greater in adolescents (7.0 vs. 3.3kg, p<.001). Adolescents had significantly lower mean changes from baseline-to-endpoint in fasting glucose (0.3 vs. 0.1mmol/L, p=.002) and triglycerides (0.3 vs. 0.2mmol/L, p=.007) versus adults. Significantly more adults experienced treatment-emergent normal-to-high changes at anytime in fasting glucose (4.8% vs. 1.2%, p=.033), total cholesterol (6.9% vs. 1.1%, p=.001), LDL (5.8% vs. 1.5%, p=.014), and triglycerides (25.7% vs. 17.4%, p=.030). Compared with standardized growth curves, olanzapine-treated adolescents had greater increases from baseline-to-endpoint in weight (1.0 vs. 7.1kg, p<.001), height (0.5 vs. 0.7cm, p<.001), and BMI (0.2 vs. 2.2kg/m2, p<.001).

Conclusion: Olanzapine-treated adolescents may gain significantly more weight compared with adults, but may have smaller changes in other metabolic parameters. Clinicians may want to consider both efficacy and changes in metabolic parameters when selecting treatment options for individual adolescent patients.

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Olanzapine-induced metabolic abnormalities, switching from olanzapine to aripiprazole

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Background: Some atypical antipsychotics particularly clozapine and olanzapine have serious metabolic side effects like metabolic syndrome.

Objective: To determine whether olanzapine-induced metabolic abnormalities identified through monitoring can be changed by switching to aripiprazole in patients with schizophrenia.

Methods: Current research show that fifty stable outpatients suffering from metabolic side effects due to olanzapine medication were switched to an open-label, flexible-dose of aripiprazole (10-30 mg/day) in this 13-week naturalistic study. An extensive metabolic evaluation was conducted on all patients, at baseline, at 6 weeks, and at 13 weeks post switch. Metabolic abnormalities consist of new onset diabetes, impaired fasting glucose, impaired glucose tolerance, metabolic syndrome according to various definitions, and dyslipidemia. After 13 weeks of treatment with aripiprazole (mean dosage 16.8 mg / day), there was a significant decrease in body weight, body mass index, and waist circumference. The rates of in fasting glucose, fasting insulin, insulin resistance index, and serum lipids levels (cholesterol, triglycerides, low-density lipoprotein (LDL), LDL/HDL, Chol/HDL, and non-HDL cholesterol) were reduced. Also three subjects with recent onset diabetes were reversed at 3 months follow-up. The metabolic syndrome was reversed in 64% of patients at 3 months.

Conclusion: The change of psychotropic drug treatment from olanzapine to aripiprazole in stable outpatients with schizophrenia was generally well tolerated and was associated with significant improvements at 13 weeks. Results support the reversibility of olanzapine-induced metabolic abnormalities when detected early and followed by a switch to aripiprazole.

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Adherence to treatment and risperidone metabolism phenotypes

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Background and aims: CYP2D6 metabolizes risperidone into 9-hydroxi-risperidone, as well as other drugs. CYP2D6 shows genetic polymorphism, and 6-8% of Caucasians are ''slow metabolizers''. ''Fast metabolizers'' show lower plasma levels of risperidone and higher levels of 9-hydroxi-risperidone than ''slow metabolizers''. The aim of this study is to collect information about the hypothetical relationship between metabolism phenotype and parameters related to sanitary resources utilization in patients treated with risperidone.

Methods: Plasma levels of risperidone and 9-hydroxi-risperidone were determined in 52 patients treated at the Acute Unit setting, to establish their metabolism phenotype. Patients were grouped as fast (n=11), slow (n=13) or intermediate metabolizers (n=28), according to risperidone/9-hydroxi-risperidone ratio logarithm and using eighty and twenty percentiles as cut-points. Hospitalizations, emergency services utilization and visits to community mental health center during two years were recorded in the three groups.

Results: Fast metabolizers showed a higher mean number of visits to community mental health centers (35.7 vs 24.8, fast and slow metabolizers respectively, p=0.667), a higher mean number of hospitalizations (2.45 vs 1.3, fast and slow metabolizers respectively; p=0.091), a longer mean length of hospitalizations (57.3 vs 47.6 days, fast and slow metabolizers respectively; p=0.581) and a higher number of visits to emergency services (2.45 vs 1, fast and slow metabolizers respectively; p=0.01), although differences only reached statistical significance in this last parameter.

Conclusions: In spite of methodological limitations (mainly the small sample size), the present study shows some preliminary evidence about the influence of pharmacogenetic factors on the evolution of psychotic patients treated with risperidone.

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Effect of nice guidance on treatment of outpatients with schizophrenia in a uk depot clinic

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