Time course of the changes in antipsychotic-induced hyperprolactinemia following the switch to aripiprazole

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摘要

Abstract

Hyperprolactinemia is an important but neglected adverse effect of antipsychotic medication. All first generation antipsychotics and the second generation antipsychotics amisulpride and risperidone have been shown to cause marked elevation in serum prolactin levels, whereas most other second generation antipsychotics and aripiprazole appear to have little or no effect on serum prolactin levels. This study was aimed to assess the time course of changes in antipsychotic-induced hyperprolactinemia during the process of antipsychotic switching to aripiprazole. Twenty-three female schizophrenic subjects with risperidone- or sulpiride-induced symptomatic hyperprolactinemia were recruited into the study and 20 of them completed the trial. We added aripiprazole to the therapeutic dose first, then overlapped the preexisting antipsychotic treatment and aripiprazole, and finally tapered the preexisting antipsychotic treatment. Clinical status was assessed by using the Positive and Negative Syndrome Scale (PANSS) and the Clinical Global Impression Severity Scale (CGI-S). Assessment scales and serum prolactin levels were measured at baseline, during the combination treatment period, and four weeks after having completed discontinuation of the preexisting antipsychotic treatment. Switching antipsychotic drugs to aripiprazole was effective in reducing serum prolactin levels and restoring menstruation in schizophrenic patients who received prolactin-raising antipsychotics. Mean serum prolactin levels at baseline, during combination period, and after the switch were 97.0 ± 69.0 ng/ml, $27.2 \pm 10.6 \text{ ng/ml}$ (p < 0.001, vs. baseline), and $12.2 \pm 5.3 \text{ ng/ml}$ (p < 0.001, vs. baseline), respectively. None of the study subjects experienced any serious adverse effects during the switching process. No significant changes were noted in the PANSS and CGI-S scores during the switching process. The prolactin-normalizing effects of aripiprazole are likely caused by the unique characteristics of the dopamine partial agonist with its high affinity

for dopamine D2 receptors.