

The dose-dependent effects of aripiprazole on prolactin levels and sexual function in patients with schizophrenia

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Background

Aripiprazole, a potent partial agonist of dopamine D₂ and serotonin 5-HT_{1A} receptors as well as 5-HT_{2A} receptor antagonist, has fewer adverse effects, such as extrapyramidal symptoms, hyperprolactinemia, weight gain, and metabolic disturbance, than other antipsychotic drugs.

Aims & Objectives

The aim of the study was to examine the effects of aripiprazole on prolactin levels and sexual function in patients with schizophrenia.

Methods

Patients with schizophrenia receiving aripiprazole monotherapy were invited to participate in this cross-sectional study. The Arizona Sexual Experiences Scale (ASEX) and Positive and Negative Syndrome Scale were used to evaluate sexual dysfunction and psychopathology, respectively. Levels of prolactin and metabolic parameters were also measured.

Results

A total of 119 subjects with schizophrenia, comprising 81 women and 38 men, were recruited. The overall prevalence of hyperprolactinemia, sexual dysfunction, and metabolic syndrome was 13.4%, 37.8%, and 36.1%, respectively. Patients with sexual dysfunction had higher prolactin levels and hyperprolactinemia prevalence than those without sexual dysfunction. ASEX score was positively correlated with prolactin level and negatively correlated with aripiprazole dose. Plasma prolactin level was negatively correlated with aripiprazole dose and metabolic parameters. Multivariate analysis revealed that prolactin level was a risk factor for sexual dysfunction.

Discussion & Conclusion

Aripiprazole exhibited dose-dependent effects on prolactin levels and ASEX scores in patients with schizophrenia. Prolactin level and sexual function are recommended to be regularly monitored in patients with schizophrenia receiving aripiprazole treatment.