



OLANZAPINE INDUCED AMENORRHEA REVERSED BY SWITCHING TO ARIPIRAZOLE- A RARE CASE REPORT

Psychiatry

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ABSTRACT

Due to less extrapyramidal side-effects, atypical antipsychotics use in psychiatry has increased a lot. But it is associated with other metabolic and endocrine side effects. Olanzapine is one such antipsychotic that is less likely to cause hyperprolactinemia which can present as amenorrhea in patients. Here we present a rare case of olanzapine induced amenorrhoea reversed by switching to Aripiprazole.

KEYWORDS

INTRODUCTION

Atypical antipsychotics improve the psychotic spectrum diseases substantially. Less side-effects, especially extrapyramidal movement disorders compared to first generation antipsychotics is the reason behind it [1,2]. However, atypical antipsychotics use is impaired by side effects like metabolic syndrome and elevated serum prolactin level. Endocrine side effects associated with antipsychotic medication, such as amenorrhea, can complicate the lives of women and impair medication adherence [3]. Rates of amenorrhea among women on antipsychotic agents vary depending on the type of antipsychotic used and also on the dose, age, and sex [4,5]. Drugs like amisulpride and risperidone are most likely to cause hyperprolactinemia usually. Usually Olanzapine is less frequently involved and aripiprazole can even decrease prolactin levels [1, 6, 7].

Here we present a case of olanzapine induced amenorrhoea reversed by aripiprazole treatment.

CASE REPORT

A 22 year old female college student was brought to psychiatry OPD with complaints of muttering to self, auditory hallucinations, aggressive behavior towards family members, persecutory delusions about her friends and neighbors, reduced sleep and appetite for the last 7 months aggravated for 3 days before the visit. On further examination it was found that her thoughts are no longer her own and her batch mates had full access to it. She also stopped eating because she felt that her parents were poisoning her. A diagnosis of schizophrenia was made according to Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Her severity scoring according to Scale for the Assessment of Positive Symptoms (SAPS) was 60. She was started on olanzapine 5 mg/day gradually up titrated to 20 mg/day over a course of 3 weeks. Trihexyphenidyl was added at dose to 2mg BD to reduced the extrapyramidal side effects of olanzapine. Her psychotic symptoms were reduced and severity score came down to 25 according to Scale for the Assessment of Positive Symptoms (SAPS). The patient came for follow up after 3 months with complaints of amenorrhoea for last 2 month. She didn't have any further psychotropic episode and Scale for the Assessment of Positive Symptoms (SAPS) score was 15. Pathological findings were not identified by physical examination, Electroencephalogram (EEG), Echocardiography (ECG) and Magnetic Resonance Imaging (MRI) revealed no mass lesions. Her Ultrasonography (USG) finding were not significant. The serum prolactin level was 160 ng/ml. Aripiprazole was initiated at dose of 5 mg/day and increased to 15 mg/day over a course of 1 month and olanzapine was slowly tapered down and stopped during the same course of time. Trihexyphenidyl was kept at the same dose as before of 2 mg BD. 1 month following this her menstruation started. Her serum prolactin level was 23 ng/ml with no exaggeration of psychotic symptoms. She again visited after 2 months with normal menstrual cycle and her Scale for the Assessment of Positive Symptoms (SAPS) score was 10. She was continuing her course and her serum prolactin level was also within normal range (20 ng/ml).

DISCUSSION

Symptomatic hyperprolactinemia is prevalent in almost 50% in all women on antipsychotic agents [5]. The elevation of baseline prolactin in psychiatric patients under pharmacotherapy is more likely to be due to drug effects than as a result of the illness itself. During antipsychotic treatment, there is 10 fold rise in prolactin level [8]. Hyperprolactinemia is mainly dependent on the anti dopaminergic properties of the drug [1, 2]. Again, there is no clear connection between serum prolactin level and acute clinical side-effects [6]. However, non compliance to antipsychotics may be as a result of hyperprolactinemic disturbances like amenorrhea, galactorrhea, or loss of libido.

Hyperprolactinemia may be reversed by the partial dopaminergic agonist mechanism of aripiprazole according to data (on the basis of the significant changes seen after switching to Aripiprazole) [9,6,7]. In the study of Marder et al., there was significant decrease in prolactin level in the group on Aripiprazole compared to the placebo group [7], and this points towards a possible intrinsic effect of aripiprazole to reduce hyperprolactinemia.

To our knowledge this is the second case of hyperprolactinemia and amenorrhoea due to olanzapine treatment being treated by changing to Aripiprazole after the report of Alpay Ates et al., [10]. In another case report by J. Wolf MD et al in 2007 [11] amenorrhoea caused by olanzapine was treated by adding Aripiprazole. Intrinsic agonistic action of aripiprazole on D2-receptors in the pituitary [2] compensating for the D2-antagonistic action of olanzapine [6] may be the reason behind this.

CONCLUSION

Amenorrhea as a result of antipsychotic drugs occurs quite frequently among women treated for Psychosis. As menstruation is related to fertility, attractiveness and normality, its absence is experienced with great deal of distress and often is misinterpreted.

Atypical antipsychotics like olanzapine can cause amenorrhoea in patients that can hamper treatment compliance and exacerbation of psychosis. Reversal of amenorrhoea due to in such cases by partial dopaminergic agonists like Aripiprazole may prompt us to use the later for better therapeutic benefit. Further detailed study into this is warranted in future in regard to selecting an antipsychotic which will have less side effects and more effective in remission and relapses and will ensure better treatment compliance.

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