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Case Series

Aripiprazole as a safer alternative for reproductive-age females with schizophrenia spectrum disorder: a case series

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ABSTRACT

This case series investigates the use of aripiprazole as a safer alternative for reproductive-age females with schizophrenia experiencing galactorrhea due to antipsychotic treatment, primarily risperidone. Galactorrhea, the spontaneous discharge of breast milk, is a distressing side effect associated with elevated serum prolactin levels induced by certain antipsychotics. In three cases, females aged 30 to 40 diagnosed with schizophrenia and well-maintained on risperidone developed galactorrhea. Seeking to address both schizophrenia symptoms and galactorrhea, a gynecologist initiated cabergoline treatment to regulate prolactin levels. Simultaneously, the patients underwent a gradual transition from risperidone to aripiprazole. Over the course of the study, aripiprazole effectively mitigated galactorrhea, normalized serum prolactin levels, and maintained the stability of schizophrenia treatment. This case series suggests that aripiprazole may serve as a beneficial alternative for reproductive-age females, offering a balance between managing psychiatric symptoms and minimizing distressing side effects. Further research is warranted to validate these findings and explore the broader implications of aripiprazole in similar clinical contexts.

Keywords: Case series, Schizophrenia, Serum prolactin, Galactorrhea, Antipsychotics, Reproductive age, Females, Side effect

INTRODUCTION

Antipsychotic drugs act upon D2 receptors present on various pathways like mesocortical, mesolimbic, nigrostriatal and tubulo-infundibular pathway as well.[1] Blockage of D2 receptors on lactotroph cells in pituitary gland causes hyperprolactinemia due to removal of the main inhibitory influence (i.e., dopamine).[2] Female patients in reproductive age having schizophrenia may experience such side effects like galactorrhoea and menstrual irregularities due to antipsychotics induced prolactin surge.

We present three cases of female patients having galactorrhoea due to antipsychotics.

CASE SERIES

Case 1

Patient A, a 28-year-old female diagnosed with schizophrenia, was being treated with risperidone 4 mg BD. She developed galactorrhoea after 6-7 months of treatment, and her serum prolactin levels were found to be 222.90 ng/ml. She was also suffering with menstrual irregularities during this period. A gynaecologist's opinion was sought, and cabergoline, a dopamine agonist, was initiated. Simultaneously, she was gradually shifted to aripiprazole cross tapering the risperidone. Aripiprazole was built up to 15 mg, and risperidone was stopped over 6-8 weeks. Her galactorrhoea ceased in 6-8 weeks. Menses

became regular and serum prolactin levels reduced down to 27.10 ng/ml. During this cross tapering, no underlying psychiatric symptoms were aggravated.

Case 2

Patient B, a 26-year-old female, was a case of schizoaffective disorder depressive type and was well maintained on risperidone 2 mg BD, and tablet escitalopram 5 mg. Within 10-12 weeks of treatment, patient developed galactorrhoea. Serum prolactin levels found to be 68 ng/ml. Gynaecologist opinion was taken, and cabergoline treatment was started. Considering Risperidone as most probable cause in this scenario, it was gradually stopped, and aripiprazole was built up to 10 mg. Her galactorrhoea stopped and serum prolactin levels returned to normal within four weeks. Currently patient is stable with no aggravation of symptoms.

Case 3

Patient C, a 30-year-old female was presented with acute exacerbation of schizophrenia and started on tablet haloperidol 5 mg, tablet trihexyphenidyl 2 mg and tablet olanzapine 5 mg. Within 3 months patient developed galactorrhoea with raised serum prolactin to 58.63 ng/ml. Patient was shifted to aripiprazole 5 mg which was gradually increased to 15 mg. Simultaneously cross titration of olanzapine and haloperidol was done, which was stopped slowly over 8-10 weeks. During this period, relatives were also told to observe the patient for any complaints like irritability, sleep issues, etc. The shift to aripiprazole was gradual, spanning ten weeks. During this time, cabergoline was initiated by a gynaecologist. Her galactorrhoea subsided, serum prolactin levels returned to normal and her schizophrenia remained well-controlled.

DISCUSSION

Hyperprolactinemia can lead to issues like sexual dysfunction, infertility, amenorrhea, gynecomastia, and galactorrhoea.[3] Some symptoms arise from prolactin-induced hypogonadism, disrupting the hypothalamic–pituitary axis, while others result from direct impacts on target tissues.[2] Besnard et al has found the prevalence of raised prolactin to be 18% in men and 47% in women due to antipsychotics.[4] Whereas Inder et al found that antipsychotic-induced hyperprolactinaemia occurs overall in up to 70% of patients with schizophrenia, depending on the medications used.[5] In all three cases, transitioning from existing antipsychotic drug to aripiprazole effectively managed galactorrhoea while preserving the stability of underlying psychiatric symptoms. Aripiprazole's unique mechanism of action as a partial agonist on dopamine receptors results in lower rates of hyperprolactinemia and galactorrhoea compared to other antipsychotic medications.[6,7] According to Cosi et al, partial agonism at D2 receptor coincides with a reduced prolactin release in a comparison study of haloperidol versus aripiprazole oral administration.[8] Kane et al had reported that the addition of aripiprazole to risperidone or quetiapine was not associated with improvement in psychiatric symptoms but was generally safe and well tolerated with significant reduction in serum prolactin levels.[9] When used as adjunctive therapy, aripiprazole normalizes prolactin levels in up to 79% of patients who are developing antipsychotic-induced hyperprolactinaemia.[10] Also, the addition of cabergoline helped to control the acute surge of serum prolactin levels.[11]

CONCLUSION

It is very important to be more vigilant about treating females in reproductive age group for schizophrenia, as they may have to face side effects such as hyperprolactinemia, galactorrhoea, menstrual irregularities, which can eventually lead to infertility. This case series highlights the potential benefits of aripiprazole in females suffering schizophrenia spectrum disorders. Once patient is well managed in acute phase with other antipsychotics, it is beneficial that patient can be shifted to aripiprazole in maintenance phase.

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