Aripiprazole-Induced Urinary Incontinence

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Aripiprazole, a partial agonist at central D_2 receptors, is a widely prescribed atypical antipsychotic drug. Drug-induced urinary symptoms such as urinary retention, urgency, or incontinence or nocturnal enuresis have been reported rarely with various typical and atypical antipsychotic agents.[1] However, aripiprazole-induced urinary incontinence is rarely reported in the published literature after it was observed during pre-marketing evaluations of the drug's oral form.[2] We report on a patient who developed acute urinary symptoms with aripiprazole, but tolerated amisulpride without developing any urinary symptoms.

Case Report

A 49-year-old married Muslim female patient came to the outpatient psychiatry department of our hospital with her husband. According to husband, her initial symptoms became evident when she started complaining about her neighbors' stealing trivial articles from her home 5 years back. On several occasions, she got angry with them and screamed at her neighbors for no obvious reasons. She also felt that people around her had always been talking about her and became angry whenever she saw others discussing any matter. A formal mental status examination revealed persecutory and referential delusions. A diagnosis of psychosis not otherwise specified was made according to *ICD-10* criteria, and she was started on oral aripiprazole 10 mg/d. During follow-up after 2 weeks, she reported significant improvement in her symptoms, and a formal mental status examination revealed cheerful affect with persecutory delusions at the ideas level. However, she reported increased urinary frequency, urgency, and incontinence within 3 days of starting the drug. Whenever she got the urge to urinate, she failed to control it and urinated in her clothes. Due to this symptom, she failed to perform her prayers, but she continued medication owing to the improvements in her symptoms. She stopped medication 2 days prior to the follow-up, which resulted in resolution of urinary symptoms.

A detailed physical examination and routine biochemical examinations including complete blood count and urinalysis revealed no abnormalities. There was no history of childhood enuresis or history of incontinence before starting aripiprazole. Considering this troublesome side effect, we changed antipsychotic to oral amisulpride 100 mg/d. The patient tolerated the medication well, and there was no recurrence of urinary symptoms.

Discussion

In our case outlined here, aripiprazole was the most likely cause of urinary incontinence, since urinary incontinence started after the patient started to take aripiprazole and disappeared shortly after the drug was stopped. Urinary incontinence is a rarely reported side effect associated with aripiprazole use. A literature search revealed only 3 reports[2–4] of aripiprazole-induced urinary incontinence in children. Conversely, however, there are multiple reports[5,6] highlighting the benefits of aripiprazole in the treatment of enuresis induced by other antipsychotics, especially clozapine. Neuropharmacologic mechanisms underlying the association between aripiprazole and urinary incontinence are currently unknown. However, aripiprazole's 5-HT_{2A} and α_1 receptor antagonism on the detrusor muscle and internal urethral sphincter could be the most probable reason for urinary symptoms in our case.[3] Moreover, the partial agonistic effect on D_2 receptors and the serotonin uptake blockage also could have contributed to the urinary symptoms by decreasing dopaminergic transmission and indirectly increasing cholinergic activity in the detrusor muscle, respectively.[3]

Our patient tolerated amisulpride without any urinary symptoms. The lack of affinity of amisulpride for adrenergic or cholinergic receptors might explain the absence of urinary symptoms in our case. In view of this case report, amisulpride can be an alternative in patients with antipsychotic-induced urinary incontinence. However, there is a single published case report[7] of urinary incontinence associated with amisulpride. Further studies are needed to characterize aripiprazole-induced urinary incontinence and to understand the usefulness of alternative options such as amisulpride to control it.

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REFERENCES

1. Ambrosini PJ, Nurnberg HG. Enuresis and incontinence occurring with neuroleptics. *Am J Psychiatry.* 1980;137(10):1278–1279.
2. Bozkurt H, Abali O. Aripiprazole-induced enuresis in a child with autistic disorder. *Arch Neuropsychiatry.* 2011;48:164–166.
3. Karakurt MN, Süren S. Desmopressin use in the treatment of aripiprazole-induced nocturnal enuresis in a child diagnosed with autıstıc disorder. *J Child Adolesc Psychopharmacol.* 2015;25(6):518–519.
4. Uzun N. Low-dose aripiprazole induced diurnal enuresis in a child. *J Foren Psy.* 2018;3:1.
5. Lee MJ, Kim CE. Use of aripiprazole in clozapine induced enuresis: report of two cases. *J Korean Med Sci.* 2010;25(2):333–335.
6. Dadlani N, Austin M. Bethanechol and aripiprazole for the management of refractory urinary incontinence in a patient on clozapine. *Aust N Z J Psychiatry.* 2016;50(2):182.
7. Mendhekar D, Lohia D. Urinary incontinence associated with amisulpride. *World J Biol Psychiatry.* 2009;10(4 pt 3):1045–1046.