



Risperidone-Induced Enuresis Nocturna

Esra Aydin Sunbul¹, Selcen Dogru Kosker¹,
Fatma Fariha Cengiz¹, Omer Yanartas²,
Selma Bozkurt Zincir¹

¹Erenkoy Mental Health and Neurology Training and Research Hospital, Department of Psychiatry, Istanbul-Turkey

²Marmara University Faculty of Medicine, Department of Psychiatry, Istanbul-Turkey

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Dear Editor,

Atypical antipsychotics are recognized as an important step in the treatment of psychotic disorders. An atypical antipsychotic drug, risperidone, is a D2 and 5-HT₂ receptor blocker which is commonly used due to its lower risk of tardive dyskinesia and extrapyramidal symptoms (1,2). Increased appetite, weight gain and sedation are among the most common side effects of it, whereas, the incidence of risperidone-induced enuresis is under 1% (3,4). Despite being a quite rare side effect, nocturnal enuresis reduces compliance to medication (2,5). Not only the patient but also all family members may be negatively affected by enuresis nocturna (6). Enuresis caused by risperidone with the use of mood stabilizers or serotonin reuptake inhibitors (SSRIs) in children is discussed in the literature as case reports (4,7). Here, we aimed to present a psychotic patient with nocturnal enuresis during his treatment with risperidone.

CASE

A 35-year-old male patient was admitted to our hospital due to delusional jealousy going on for approximately one year, in which he thought his wife was cheating on him with another man. In his psychiatric assessment, there were no other delusions or hallucinations. According to DSM-IV-TR criteria, the patient was diagnosed as delusional disorder, and risperidone 2 mg/day was started. In the 20th day of his treatment, the patients' delusional symptoms regressed

however urinary incontinence symptoms were seen 4-5 times per week. According to the results of urology and internal medicine consultations, no organic pathology was detected. Then, risperidone was suspected for the occurrence of nocturnal enuresis in this patient. Nocturnal enuresis ceased dramatically after discontinuation of risperidone. The patient was prescribed 5 mg/day aripiprazole for his delusional disorder and did not report any signs of nocturnal enuresis.

DISCUSSION

Nocturnal enuresis under risperidone treatment and improvement of enuresis with its cessation, suggest a causal relationship between risperidone and urinary incontinence in the form of enuresis nocturna. Cases and studies in the literature support this relationship. For example, in a study Vokes and colleagues conducted in 25 adults with schizophrenia, after the initiation of risperidone treatment, nocturnal enuresis was observed in 28% of the patients (8). Another study in 2011 compared, nocturnal enuresis rates of clozapine, risperidone, olanzapine and quetiapine treatments among patients aged between 15 and 64 years. Enuresis was reported nearly 20% with clozapine treatment, whereas, this rate was 6.2% with risperidone, 9.6% with olanzapine, and 6.7% with quetiapine treatments (9).

The pathophysiology of antipsychotic-induced enuresis is not clear (10,11) though several mechanisms are being studied (3). Central dopamine blockade and peripheral α 1-adrenergic blockage have been suggested to play a role in relaxation of urethral muscles (3). Another mechanism is the blockage of pudendal reflexes via antagonisms of 5-HT₂ and 5-HT₃ (12). Perhaps a low affinity for muscarinic receptors, strong peripheral alpha-1 adrenergic (1), central dopaminergic, and norepinephrine blocking effects of risperidone causes enuresis (3,5).

Another important reason for the development of enuresis with the use of antipsychotic drugs may be sedation side effect of them (13). By this effect these drugs may interfere awaking of these patients from sleep. In such situation, administering the drug dose early in the evening and providing behavioral solutions (such as waking the patient to go to the bathroom at night) can contribute to the solution of the problem.

The relationship between nocturnal enuresis and the use of atypical antipsychotics have not been thoroughly clarified yet. However, it is clear that urinary incontinence deteriorates quality of life and treatment adherence among these patients. Thus, clinicians should keep in mind enuresis nocturna as a side effect of risperidone and should take relevant precautions for better care.

Omer Yanartas
Marmara University Faculty of Medicine,
Department of Psychiatry, Istanbul-Turkey
omeryanartas@yahoo.com

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References:

1. Öztürk M, Sayar K, Tüzün Ü. Asperger bozukluğu olan çocuklarda risperidon kullanımı: olgu sunumu. Klinik Psikofarmakoloji Bülteni. 2000;10:51-5.
2. Took KJ, Buck BL. Enuresis with combined risperidone and SSRI use. J Am Acad Child Adolesc Psychiatry. 1996;35:840-1.
3. Hergüner S, Mukaddes NM. Risperidone induced enuresis in two children with autistic disorder. J Child Adolesc Psychopharmacol. 2007;17:527-30.
4. Ghanizadeh A, Mohsen Kianpoor M. Cessation of risperidone-induced incontinency by valproate in a child with pervasive developmental disorder. Prim Psychiatry. 2007;15:32-4.
5. Poyurovsky M, Weizman A. Risperidone induced nocturnal enuresis. Isr J Psychiatry Relat Sci. 1997;34:247-8.
6. Tanrıverdi MH, Palancı Y, Yılmaz A, Penbegül N, Bez Y, Dağgüllü M. Effects of enuresis nocturna on parents of affected children: Case-control study. Pediatr Int. 2013. doi: 10.1111/ped.12242. [Epub ahead of print]
7. Kandil ST, Aksu HB, Ozyavuz R. Reversible nocturnal enuresis in children receiving SSRI with or without risperidone: presentation of five cases. Isr J of Psychiatry Relat Sci. 2004;41:218-21.
8. Vokas CS, Steele VM, Norris JI, Vernon LT, Brescan DW. Incidence of risperidone induced incontinence. Schizophr Res. 1997;24:267.
9. Harrison-Woolrych M, Skegg K, Ashton J, Herbison P, Skegg DCG. Nocturnal enuresis in patients taking clozapine, risperidone, olanzapine and quetiapine: comparative cohort study. Br J Psychiatry. 2011;199:140-4.
10. Fuller MA, Borovicka MC, Jaskiw GE, Simon MR, Kwon K, Konicki PE. Clozapine-induced urinary incontinence: incidence and treatment with ephedrine. J Clin Psychiatry. 1996;57:514-8.
11. Kho KH, Nielsen O. Clozapine-induced nocturnal enuresis: diagnostic and treatment issues. Psychiatr Bull. 2001;25:232-3.
12. Kantrowitz JT, Srihari VH, Tek C. Three cases of risperidone-induced enuresis. Schizophr Res. 2006;84:174-5.
13. Steingard S. Use of desmopressin to treat clozapine-induced nocturnal enuresis. J Clin Psychiatry. 1994;55:315-6.