

## DIURNAL ENURESIS SECONDARY TO ARIPIPRAZOLE

### Aripiprazol Sonrası Gelişen Diurnal Enürezis

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#### ÖZET

Aripiprazol parsiyel D2 reseptör agonisti olan ikinci kuşak bir antipsikotik ilaçtır. Bipolar bozukluk ve şizofreni gibi bazı psikiyatrik rahatsızlıkların tedavisinde kullanılmaktadır. Çocuklarda aripiprazolün üriner retansiyon ve enürezis yan etkileri nadiren bildirilmiştir. Bu olgu sunumunda, aripiprazol tedavisine sekonder gelişen bir diurnal enürezis tartışılacaktır.

**Anahtar kelimeler:** Aripiprazol, dopamin, diurnal enürezis

#### ABSTRACT

Aripiprazole is a second-generation antipsychotic drug that is partial agonist of dopamine D2 receptor. It is used in the treatment of some psychiatric disorders such as schizophrenia, bipolar disorder. It has rarely been reported that aripiprazole has side effects of urinary retention and enuresis in children. In this case presentation diurnal enuresis secondary to aripiprazole treatment will be discussed.

**Keywords:** Aripiprazole, dopamine, diurnal enuresis

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## INTRODUCTION

Enuresis is an unintended leakage of urine an individual old enough to maintain bladder control. Nocturnal enuresis refers to nighttime wetting and diurnal enuresis means accidental daytime wetting. Diurnal enuresis is encountered in about 10% in children and 2% in adults (1). Although drug-induced urinary incontinence is noted as one of the side effects of selective serotonin reuptake inhibitors, antipsychotic drugs were also reported for enuresis (2). Aripiprazole is a second-generation antipsychotic drug that is partial agonist of dopamine D2 receptor and serotonin 5-HT1A receptor besides being 5-HT2A receptor antagonists. Aripiprazole is used in the treatment of some psychiatric disorders such as schizophrenia, bipolar disorder, and major depressive disorder. This drug is preferred among the other antipsychotics due to its fewer side effects with both short and long-term use and limited effect on weight change. In this case presentation diurnal enuresis secondary to aripiprazole treatment will be discussed.

## CASE PRESENTATION

A 27 year-old female patient presented to our clinic with the complaints of tendency to sleep, unwillingness to speak, loss of appetite, reluctance, and malaise. The patient was speaking with a low voice and answering questions after waiting for a while during the interview. Delusion of worthlessness was dominant on her thought content. Her mood was depressive and her affect was correlated with her mood. Her laboratory results, neurological examination and imaging studies were within normal range. In her psychiatric history she was diagnosed with bipolar disorder 5 years ago. Our patient was diagnosed as bipolar disorder with depressive episode in regard to her medical history and psychiatric examination. She was on 900 mg lithium and 400 mg Quetiapine but she was complaining of gaining weight. It was planned

to switch from Quetiapine to aripiprazole. 5 mg of aripiprazole was added to treatment and raised to 10 mg one week later. Two weeks later, she had complaints of bed-wetting and enuresis in daytime. Laboratory tests including urinalysis were all within normal range. No organic disorders were found beneath this symptom. Aripiprazole treatment was discontinued gradually as it may be the cause for enuresis. Following discontinuation of aripiprazole, enuresis was disappeared.

## DISCUSSION

We presented a case with diurnal enuresis secondary to aripiprazole. It has rarely been reported that aripiprazole has side effects of urinary retention and enuresis in children (3,4). In the literature there are contradiction for Aripiprazole about enuresis. It was reported that Aripiprazole induced nocturnal enuresis (5). On the other hand, Aripiprazole was used for enuresis treatment (2,6). Most of the enuresis cases are developed due to selective serotonin reuptake inhibitors (7,8). The development of enuresis in our patient after aripiprazole treatment and its disappearance after discontinuation of the medication besides the lack of any other causes are the reasons that made us link this symptom with aripiprazole treatment. Until now enuresis mechanism has not been clarified in detail. 5-HT2A antagonism of 5-HT2A receptor on detrussor muscle and antagonism of alpha-1 receptor on internal sphincter may be the mechanisms for enuresis effect of aripiprazole treatment in our case. Besides, serotonin reuptake effect of aripiprazole treatment may also have role on enuresis mechanism when cholinergic neuromuscular impact of serotonin on isolated detrussor muscle (7) and the enuresis cases after SSRI usage (9) are considered. Antagonism of 5-HT1A inhibits bladder contractions (10) and partial agonism of aripiprazole on 5-HT1A receptor eliminates bladder dysfunction. Contradictory effects of Aripiprazole about enuresis may be due to

partial agonist features of it. Unexpected effects should always be kept in mind besides probable side effects in case of psychotropic drug usage. More observations and studies are needed in order to understand these adverse effects. Our case is important in the aspect of being the first report of aripiprazole treatment with diurnal enuresis side effect in the literature.

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