

## Case Report

# Effectiveness of Low Dose Aripiprazole as Monotherapy on Obsessive Compulsive Disorder and Tic Disorder Comorbidity: A Case Report

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16, 2016; **Published:** November 18, 2016**Abstract**

Childhood Obsessive Compulsive Disorder (OCD) treatment include Cognitive Behavioral Therapy, Selective Serotonin Reuptake Inhibitors or combination of these treatments. In the treatment resistant cases, atypical antipsychotics can be used in addition to other intervention strategies as an adjunction. However, the effectiveness of atypical antipsychotics in the treatment of OCD without other interventions is not well known. We report an adolescent case with diagnoses of OCD and tic disorder whose both OCD and tic symptoms completely disappeared with low dose Aripiprazole treatment as a single therapy.

**Introduction**

Pediatric Obsessive-Compulsive Disorder (OCD) is a common and debilitating disorder which may cause substantial impairment in academic, social, and family functioning. Tourette syndrome or tic disorders can be seen together with OCD and this co-occurrence is defined as a specific subtype of early onset OCD, with higher male prevalence [1]. First line interventions in OCD treatment include Cognitive Behavioral Therapy, Selective Serotonin Reuptake Inhibitors, and the combination of both these treatments [2]. Atypical Antipsychotics can be used in addition to antidepressant treatment in resistant cases. Aripiprazole, which is a partial dopamine agonist, can be used in both tic disorder treatment and augmentation of OCD treatment. It is reported to be as effective as Risperidone in treatment of resistant OCD cases co-morbid with tic disorders [3]. Because of less side effects, Aripiprazole is a safe and well tolerated medication compared to Risperidone. Despite there are some reports related to effectiveness of Aripiprazole in combination with Selective Serotonin Reuptake Inhibitors in resistant OCD cases, effectiveness of single Aripiprazole treatment on OCD symptoms was not reported before. This case report presents a 14 year old boy admitted to our clinic with diagnoses of OCD and tic disorder and his both OCD and tic symptoms completely disappeared two months after administration of low dose Aripiprazole treatment. Also, the possible mechanisms of action related to the effectiveness of Aripiprazole on OCD will be discussed.

**Case Presentation**

The patient was admitted to our clinic with complaints of multiple motor tics including blinking, jumping and touching to his head with his hand. Additionally, mild obsessive thoughts and compulsive behaviors including worries about hurting other people, doubts about actions he has committed, and checking activities were determined in the psychiatric examination. He described these movements and obsessive thought and behaviors as seen during the last year. At the admission, the patient was requested to fill Maudsley Obsessive-Compulsive Inventory Questionnaire (MOCIQ). MOCIQ is used to

explore the level and type of obsessive-compulsive symptoms [4]. The Turkish version of the MOCIQ has adequate reliability and validity values. Internal consistency analysis indicated that its Cronbach's Alpha value is 0.86 [5]. At the admission, MOCIQ indicated mild obsessive symptoms (8 points). Aripiprazole 5 mg/d was started for his motor tics at the admission. At the second visit 40 days after the admission, both tics and OCD symptoms were disappeared (MOCIQ=2 at second visit and MOCIQ=0 at third visit 2 months after admission). The patient is being followed during 6 months with no tics or OCD symptoms.

**Discussion**

The high association between OCD and TD, based on a shared genetic etiology [6], and overlapping neurocortical systems [7], is bi-directional, with rates of 20-60% of TD patients meeting criteria for OCD, and 20-38% of OCD patients meeting criteria for TD [8]. Dopaminergic modulation is a crucial component in both motor and vocal tics, as traditionally, dopamine-blockers are the first line treatment for tics, and have the most compelling evidence of efficacy from controlled studies [9].

Adjunctive medications are frequently used in ordinary clinical settings as augmenting strategies in adult OCD for unsatisfactory response to SSRIs monotherapy. Maina et al. [10] randomized 50 adult patients with OCD non-responding to a 16-week SSRI trial to risperidone vs olanzapine augmentation. Both the augmentation strategies were effective, without differences in rate of responders between the groups (50% in risperidone group, 57% in olanzapine group). Selvi et al. [11] compared efficacy of risperidone and aripiprazole augmentation in adult OCD patients who did not respond to a first SSRI monotherapy. Fifty percent of those receiving aripiprazole compared to 72.2% of those receiving risperidone, met response criteria after augmentation. Finally, Muscatello et al. [12] explored the efficacy of add-on aripiprazole (15mg/day) or placebo, in 30 adults with treatment resistant OCD receiving SSRIs or clomipramine. Aripiprazole augmentation was superior to placebo in OCD symptomatology, according to Yale Brown

Obsessive Compulsive Scale total score and subscores (obsessions and compulsions), as well as in some cognitive functions (attentional resistance to interference, executive functioning).

Empirical evidence supporting efficacy of augmenting strategies in OCD children and adolescents is still limited to few case series. In a naturalistic retrospective study of pediatric OCD, among the patients who did not respond to an SSRI monotherapy, 43 received a co-treatment with an atypical antipsychotic as an augmenting strategy, and 25 of them (58.1%) could be classified as responders [13]. Finally, in a consecutive case series of 39 adolescents with medication-resistant OCD (16 with comorbid TD), 27 patients (59.0%) responded to an aripiprazole augmentation [14]. According to our knowledge, there is only one report on the effectiveness of Aripiprazole monotherapy on OCD symptoms in children and adolescents up to day. A child with Prader Willi Syndrome who has aggressive and obsessive symptoms has been benefitted from low dose of aripiprazole treatment in this recent report [15]. Further studies investigating possible therapeutic effect of Aripiprazole on OCD will further improve our knowledge on this topic.

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