Aripiprazole in the Treatment of Trichotillomania: A Case Report

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ABSTRACT:
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Trichotillomania (TM) is a rare psychiatric disorder, and recognized with its complications effecting functionality. A number of pharmacological agents and psychotherapy have been used in the treatment of TM. There are few publications of drug therapy for TM and no consensus has been established yet. This 16-year-old female patient with TM will be the second case in the literature treated by aripiprazole.

Key words: Trichotillomania, treatment, aripiprazole

INTRODUCTION

Trichotillomania (TM) is a chronic impulse control disorder characterized with a repeated urge of hair pulling resulting in hair loss (1). It was firstly defined by a French dermatologist, Francois Hallopeau (2). Today, it is defined as a disorder characterized with increased tension followed by repeated self hair pulling behavior meanwhile having pleasure and it has been included in "Impulse-control disorders not elsewhere classified' diagnosis group in DSM-IV-TR (3).

Presence of TM is generally source of feeling shame and guilt. Untreated TM impairs social functionality and causes medical complications (2). Hair loss is frequently characterized with areas of short, broken and weakened hair seen among healthy hair. Although pruritis and feeling of prick in scalp are experienced at the time of pulling hair, feeling of pain has not been reported. Common medical complications include damaged hair follicles, untidy hair, impairment of hair growth, and alopecia (4). Furthermore, there is a risk of scar tissue formation and infection as a result of compulsive pulling and carpal tunnel syndrome and other neuromuscular problems may also be seen due to repetitive motion of hair pulling (1). The most severe complication which is rare but reported as fatal is the formation of trichobezoar and may result in anemia, gastrointestinal obstruction and peritonitis (5).

Accompanying diagnoses for TM are affective disorders (major depressive disorder), anxiety disorders (obsessive compulsive disorder, generalized anxiety disorder and social phobia), personality disorders (borderline and obsessive compulsive) and mental retardation (6,7).

Onset of TM is generally before 17 years of age. Cases diagnosed as TM earlier than 6 years of age are defined as early onset and tend to respond well to supportive and behavioral therapies. Cases with a diagnosis of TM after 13 years of age are described as late onset and defined as having poor prognosis (1).

In the treatment of TM, various drugs like Quetiapine (8), Aripiprazole (9), Risperidone (10), Haloperidol (11), Lithium (12), Valproic acid (13), Naltrexone (14), Topiramate (15), SSRIs and tricyclic antidepressants (16) belonging to different groups and group therapy and cognitive behavioral therapies (17,18) have been used and...
found to be useful. However, no consensus has been achieved yet on the most effective therapeutic method.

**CASE**

M, 16-year old teenager is one of the four children of a family that has no previous history of a psychiatric disease. About two years ago, her parents noticed that she had been having hair loss. After realizing that this condition was associated to repetitive hair pulling, she was taken to a psychiatrist by her parents. At that time, she had no complaints except anxiety and urge of hair pulling which she could not resist. Also, there were no significant stressors in her life except her father’s arriving late at home after work and not paying sufficient attention to his family. After psychiatric examination, Sertraline 50 mg/day was prescribed with the diagnosis of TM. One month follow-up revealed a decrease in the signs of anxiety but no decrease in hair pulling were observed. Thus, Aripiprazole 10 mg was added to drug therapy. Hair pulling was seen to be disappeared on the next follow-up performed one month later. The patient began to take her medicine irregularly because she had moved to another city. She presented to our outpatient clinic with recurrence of her complaints including anxiety and hair pulling. Physical examination of the patient revealed untidy hair appearance and damaged hair follicles in association to hair pulling. Except affective disorder in form of anxiety, no other findings were determined on psychiatric examination. She was having adaptation problems about the new city she moved. After a supportive therapeutic interview, she was recommended to take her medicine regularly. One month follow-up revealed adherence to medications, a regression in complaints and a prominent decrease in the frequency of hair pulling. On the next follow-up performed on July 2008 the patient stated that she wanted to discontinue her medicine after one and a half year of use. After evaluation, recovery was considered to be accomplished and Aripiprazole dose was decreased to 5 mg/day, while Sertraline dose remained unchanged. In November 2008, she described anxiety due to some kind of stresses (e.g adaptation, exclusion) she experienced after beginning to school and she began pulling hair which she tried to resist but failed. Aripiprazole 5 mg was added to current Sertraline 50 mg/day treatment. A follow-up performed in January 2009, revealed a nearly complete disappearance of hair pulling and no other psychiatric symptoms and signs were evident.

Routine biochemical examination performed at baseline and at admission after recurrence was evaluated as normal.

**DISCUSSION**

There is a number of case reports about the atypical antipsychotic use as adjuvant or single agent treatment of TM (8,9,19). There is only one case in literature reporting Aripiprazole use by Jefferys and Burrows (9). After prescribing an augmenting treatment with Aripiprazole to a patient who had currently been using Reboxetine with the diagnoses of TM and depression, resolution of TM were reported and there was no evidence of repetitive hair pulling on the follow-up visits (9). According to our knowledge, our case is the second case of TM responded to Aripiprazole. Aripiprazole is identified as a partial agonist with high affinity to dopamin D2S, D2L, D3 and serotonin 5-HT1A receptors, an antagonist with high affinity to serotonin 5-HT2A and 5HT2B receptors, a poor partial agonist with high affinity against serotonin 5-HT2C receptor, and a poor partial agonist with high affinity against 5-HT7 receptor (20). Aripiprazole’s rapid action on TM is thought to be explained by its effect on serotonin receptors in addition to its effect on dopamine.

Furthermore, both Sertraline and Aripiprazole are commonly metabolized via CYP 2D6 and 3A4. The use of both agents could therefore increase the serotonergic activity as a result of the decrease in elimination of Sertraline and increase its levels in blood (20, 21). Findings pertaining to use of Aripiprazole in TM as a single agent will contribute to discussions about its mechanism of action in TM. A 15 mg/day dose of Aripiprazole was administered by Jefferys and Burrows, while the initial dose was 10 mg/day in our case. After approximately 2-years of follow-up, Aripiprazole was discontinued in consideration of a probable recovery. Five mg/day dose was prescribed again due to recurrence of TM and found to be effective. Further studies with larger sample sizes are required to determine Aripiprazole efficacy, dosage, and duration of therapy in treatment of TM.
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