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Case Report

Hair loss due to aripipirazole use: a case report

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ABSTRACT

Hair loss is one of the side effects that can be seen after medical treatments. Hair loss due to medications is a diffuse state that does not leave scars and usually reversible with stopping the treatment. Aripipirazole is an atypicalantipyschotic drug, which also has antidepressant effects. Aripipirazole has a partial agonistic effect on dopamine D2 receptors and serotonin 5-HT1A receptors which differs from other atypic antipyschotic drugs. It is used in several pyschiatric disorders including schizophrenia, bipolar disorders, major depressive disorder and anxiety disorders. This report aims to present a case with hair loss due to aripipirazole use that is reversed back right after stopping the treatment. Since other psychotropic medications may also stimulate hair loss, it is possible to speculate that this side effect is a class effect of medications. However, further studies are needed to understand exact mechanisms of hair loss due to psychotropic medications.

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Introduction

Benign dermatological side effects may be seen during psychotropic medication use, and these side effects can be treated easily. The incidence of dermatological side effects due to psychotropic medication use is 0.1% [1]. When the incidence of skin reactions is reviewed by drug classes, the following rates are found: mood stabilizers 0.22%, tricyclic antidepressants 0.07%, serotonin reuptake inhibitors 0.05%, and atypical antipsychotics 0.03% [2]. The most accused drugs are mood stabilizers valproic acid and lithium [3]. Though at a lower rate, tricyclic antidepressants, olanzapine, risperidone, quetiapine, clonazepam and buspirone and SSRI's may also cause this side effect [4,5].

Aripiprazole is a new generation of antipsychotic that has a partial agonist effect on dopamine D2 receptors, and thus causes side effects less frequently than other antipsychotic medications [6]. Its major side effects are reportedly tremors, akathisia, headache, nausea and vomiting [7]. In this report we present a case with hair loss that appeared following the initiation of aripiprazol treatment and terminated right after ceasing the treatment.

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Case report

The patient was a 30-year-old married female, who was an officer with a university degree. She visited our outpatient clinic with a complaint of repeated thoughts about doing her religious ablutions over and over again, suspecting the existence of god and saying bad things. Her history revealed that her religious obsessions started 3 months ago and caused decreased functionality. In the mental status examination it was observed that general appearance and self-care was good. She was fully oriented, and the quantity and speed of speech was normal. Memory and other cognitive functions were good. There was no psychomotor abnormality. Affect was appropriate and mood was dysphoric. Thought content contained religious obsessions. No delusions or hallucinations were detected. Her judgment was normal, and her insight was intact. The patient had no history of chronic disease, surgery, alcohol-substance or drug use. The patient was diagnosed with Obsessive-Compulsive disorder with depressive disorder according to DSM-V-R [8]. She had been using venlafaxine 225 mg/day for the treatment depression for 5 years, and aripiprazole 5 mg/day was added to her treatment. At her initial presentation, the total score of Yale Brown Obsessive-Compulsive Scale (YBOCS) [9,10] was found as 41. However, in the first month of the treatment the patient exhibited massive hair loss in the following weeks of aripiprazole treatment. The patient was referred to the dermatology ward to rule out possible organic aetiologies. 2 weeks later hair loss increasingly continued. A hair count test [11] revealed that there is a pathological hair loss. The dermatology consultation reported that no pathology was found to explain the hair loss. Because aripiprazole treatment was started recently, it was thought aripiprazole might be triggering the hair loss and the medication was discontinued. The patient scored 9 on the Naranjo adverse drug reaction probability scale [12], which assesses adverse drug reactions. The patient, whose obsessive symptoms decreased (a YBOCS score of 29 in the 2nd month), continued to be treated with venlafaxine 225 mg/day. On the follow-up examinations, it was observed that the complaint of hair loss alleviated 1 month later and returned to normal 3 months later.

Discussion

It is hard to decide whether or not hair loss is a side effect associated with drug use, and there is no specific method to confirm the diagnosis. Two criteria are recommended to confirm the relationship between drug use and hair loss [13]. First one is decreasing hair loss upon termination of the drug and increasing hair loss when the same drug is started again. And the second one is the absence of another systemic disease that may cause hair loss. For patients presenting with hair loss, thyroid function tests; serum iron, serum iron binding capacity and ferritin for iron deficiency anaemia; and if virilisation findings such as acne and hirsutism is present, endocrine tests including androgen hormones should be requested. [14]. Because our patient had no virilisation findings at the time of her dermatologic examination, endocrine tests were not requested, and other tests results (hemogram, iron, iron binding capacity, ferritin, free T3, free T4, TSH, vit B12, folate) were in normal ranges; no cause of disease was found to explain the hair loss.

Because there was a temporal relationship between the beginning and ceasing the aripiprazole treatment and hair loss, andother possible aetiologic causes were ruled out, the complaint of hair loss is considered to be a side effect associated with drug use in the case. Drug-induced alopecia appears a few months after taking the drug and is generally in the form of telogen hair loss and returns to normal 3-5 months after the drug is discontinued [15]. The exact mechanism of hair loss associated with psychotropic medications is yet to be clarified. The effect of these drugs on the hair is not limited to hair loss. They may allegedly change the structure and colour of the hair [16]. The fact that aripiprazole, as other psychotropic drugs [17,18], causes hair loss makes us consider that this condition is a class effect for psychotropic drugs. With its area of usage of growing, its use in the treatment has become widespread. Its varying efficacy profile required special efforts to define its place in psychopharmacology. For this reason, identifying its similar and common aspects with other psychotropics is important.

Conflict of interest

No authors have any financial or other conflict of interest in regard to the present work.

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