

Olanzapine Induced Hair Loss: A Case Report

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ÖZET:

Olanzapin kullanımına bağlı saç dökülmesi: Bir olgu sunumu

İlaça bağlı alopesi; yaygın saç dökülmesi şeklinde olup, sorumlu ilacın kesilmesiyle geri dönüşümlü olan bir yan etkidir. Psikotrop ilaçlar içerisinde bu yan etkiden dolayı en çok, valproik asit ve lityum suçlanmıştır. Ancak atipik antipsikotiklere bağlı saç dökülmesi ile ilgili yayın sayısı oldukça kısıtlıdır. Yazımızda olanzapin tedavisine başladıktan sonra ortaya çıkan ve sadece tedavinin sonlandırılmasıyla düzelen, yaygın saç dökülmesi olan bir olguyu sunmayı amaçladık.

Anahtar sözcükler: Olanzapin, alopesi, yan etkiler

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ABSTRACT:

Olanzapine induced hair loss: a case report

Drug-induced alopecia is a side effect characterized by generalized hair loss. It is reversible when the drug is discontinued. Among psychotropic agents, this side-effect is most often reported with the use of valproic acid and lithium. There are limited reports on atypical antipsychotic-induced hair loss. Here, we report a case of hair loss after olanzapine use which resolved after the discontinuation of olanzapine.

Key words: Olanzapine, alopecia, side effects

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INTRODUCTION

Drug induced alopecia is a reversible side effect that commonly occurs as general alopecia, usually developing in the first three months of treatment and resolving after the cessation of the responsible drug. Although the lesions may be limited and self-restricting, sometimes the condition may be general and involve the hair on the whole body (1,2). Psychotropic drugs are considered to cause alopecia by specifically effecting the telogen phase (3). The side effects of these kinds of drugs on hair are not restricted to only hair loss; they are also suggested to be able to change the structure and color of hair (4).

Among psychotropic agent, most often valproic acid and lithium are implicated in the occurrence of this side effect (1,5-8). In the literature, there are cases in which antidepressant-induced alopecia has been reported (9-12).

Among typical antipsychotics, haloperidol and chlorpromazine-associated alopecia are documented (13,14). However the number of studies which reporting atypical antipsychotic induced alopecia is quite limited (1,15,16).

In this report, we present an interesting and rare alopecia case, which developed after the onset of olanzapine treatment and resolved after cessation of the drug.

CASE

M.Ç. was a 31 year-old, male, primary school graduate patient. He visited a private psychiatrist with complaints of decreasing self-care, absurd speech and behaviors, paranoia, irritability, nervousness and complaints of eye images for about 12 years. He had been started on treatment with a diagnosis of schizophrenia and he had been followed

at an outpatient clinic. The patient had been hospitalized with the same diagnosis and had used the drugs of aripiprazole, risperidone, and carbamazepine at intervals. Olanzapine 10 mg/day treatment was started almost 9 months ago and the dosage was increased gradually to 20 mg/day. After two months, the patient suffered from hair loss but he continued his treatment because of he was benefiting from the treatment. He was referred to our outpatient clinic because of increasing hair loss. The patient reported that he never had a complaint of hair loss before with any drug except olanzapine. On mental status examination, his self-care was moderate, he was fully conscious, oriented and cooperative. The thought content of the patient was poor and his affect was blunted. Neither hallucinations nor delusions were detected. He sometimes had suffered from insomnia; however he had no problems with appetite or libido. Physical and neurological examinations were unremarkable. He has no comorbid medical illness and his family history was also unremarkable. The investigations to detect possible medical causes included: complete blood count, blood urea, creatinine, AST, ALT, GGT, direct bilirubin, indirect bilirubin, and additional endocrinological investigations (such as thyroid function tests, prolactin, estrogen, dihydrotestosterone, and other hormones of the hypothalamic-pituitary-gonadal axis and serum zinc level); all were within normal ranges. The other Axis I psychiatric disorder that can cause hair loss (such as trichotillomania) was excluded by differential diagnosis. Because the patient did not use any additional drugs, we ruled out the possibility of antihypertensive, nonsteroidal anti-inflammatory, antiulcer etc. induced alopecia in differential diagnosis. The patient was assessed by the dermatology department and no additional dermatological disease was found that could induce alopecia. Because the patient did not have alopecia before olanzapine treatment and other possible causes such as family history and organic causes were excluded, general alopecia was suggested to be associated with olanzapine treatment. Thus, at the outpatient clinic follow up, we changed the olanzapine treatment and started aripiprazole, a drug that the patient reported he had benefited from before. The alopecia resolved in our patient. Additionally a zinc containing mineral treatment was added after a few months. During this period, there was no increase in the psychotic symptoms of the patient.

DISCUSSION

The use of atypical antipsychotics for schizophrenia and other psychotic disorders has increased in recent years. However, this group of drugs has undesirable side effects on various systems of the body like other drugs. The dermatological side effects induced by antipsychotics are usually benign and can be treated easily. The most reported dermatological side effects associated with antipsychotic agents are rash, exanthematous rash, pruritus, photosensitivity, skin pigmentation, fixed drug eruptions, and alopecia (17).

There are a limited number of cases in which risperidone, quetiapine, and olanzapine induced alopecia have been reported in the literature (1,15,16). Being unable to notice hair loss, being unable to associate the hair loss with the drug and the common use of antipsychotics in psychotic patients might be considered among the possible causes for detecting this side effect less frequently. Moreover, not asking patients about this side effect regularly could result in hair loss being overlooked by clinicians (17).

Olanzapine is a derivative of thienobenzodiazepine which has been accepted to be a safer and more tolerable antipsychotic compared to first generation antipsychotics (16). However, the clinicians have to be careful for patients who were put on olanzapine in terms of various kinds of side effects, like with other antipsychotics. Our literature search on hair loss associated with the use of olanzapine only identified one case presentation. In this case, Leung et al. reported (16) a 41 year old female patient, who had erotomanic and persecutory delusions, was started on olanzapine 5 mg/day treatment. After 4 weeks the dosage of olanzapine was increased to 15 mg/day. They reported that at the second week of treatment alopecia developed and after increasing the dosage of olanzapine to 15 mg/day alopecia worsened. In this case, it was reported that alopecia was reduced after cessation of olanzapine treatment and switching to risperidone treatment. It is reported that drug induced alopecia was not permanent and reducing the dosage or stopping the responsible agent was best approach (1). Similarly, it was considered that alopecia reversed after discontinuing olanzapine treatment in our case.

It is very difficult to recognize the drug induced alopecia and there is not any special method for diagnosis.

Discontinuing the suspected agent and observing the regrowing of hair are the only ways to establish an association. Recurrence of hair loss after rechallenging the patient with the same drug can confirm the diagnosis (2,4,17). Moreover, diseases that can lead to alopecia such as trichotillomania, hypothyroidism, hyperthyroidism, the hypothalamic-pituitary-gonadal axis diseases, and iron, copper, and zinc deficiency, menopause, and drugs that can induce alopecia such as oral contraceptives and other drugs (antihypertensive, anticoagulant, anticonvulsant, nonsteroidal anti-inflammatory, antiulcer drugs, etc.) have to be investigated in differential diagnosis (12,18). In our patient, the necessary biochemical and hormonal tests were conducted. Moreover, no diseases were found that could cause alopecia in dermatology consultation. After excluding all potential causes in the differential diagnosis and confirming growth of hair after cessation of olanzapine, alopecia was accepted to be induced by olanzapine use in our case.

The exact cellular mechanism of olanzapine and other psychotropic drugs induced alopecia is still unclear. According to a hypothesis, these drugs affects the zinc and selenium chelates which are considered to be very important in growing of hair, however the efficacy of the

routine administration of zinc and selenium has not been proven yet. Complete recovery can occur by usually reducing the dosage of drug or cessation. Alopecia which develops during taking psychotropic drug treatment may be due to specific to a drug, but also due to personal sensitivity.

Psychotropic drugs can cause many dermatological side effects. These side effects can commonly be treated easily and without hospitalization; however sometimes they may be serious requiring hospitalization or even may be fatal. The drugs that patient used previously and history for drug induced dermatological side effects should be carefully investigated and patients and their relatives have to be informed about the possible dermatological side effects. Moreover, the patient who are given psychotropic medication should be carefully followed up in terms of dermatological reactions (19).

In conclusion, atypical antipsychotic-induced alopecia is an uncommon side effect. We suggest that clinicians should screen for alopecia carefully in outpatient clinics, because of the fact that this side effect can disturb treatment adherence and may cause cosmetic problems. Further studies including large patient samples and exploring the possible mechanism of alopecia are needed.

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