

Fluoxetine Induced Hair Loss: A Case Report

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ABSTRACT

Fluoxetine induced hair loss: a case report

Hair loss is a frequent adverse effect that may occur by psychotropic drug use and that can remit by its cessation. Some side effects such as skin rash, urticaria, and skin eruptions induced by Selective Serotonin Re-uptake Inhibitors (SSRIs) may be observed. In addition to these dermatologic side effects, hair loss extending to alopecia has been reported. In this paper, we report a case of fluoxetine-induced pervasive hair loss recovering after its discontinuation.

Key words: Fluoxetine, hair loss, side effect

ÖZET

Fluoksetin kullanımına bağlı saç dökülmesi: Bir olgu sunumu

Saç dökülmesi psikotrop ilaç kullanımı sonrası sıklıkla görülen ve sorumlu ilacın kesilmesiyle geri dönüşümlü olan bir yan etkidir. Seçici Serotonin Geri Alım İnhibitörü (SSGİ) kullanımına bağlı olarak deride kızamık, ürtiker, döküntü gibi yan etkiler gözlenebilmektedir. Ayrıca bu dermatolojik yan etkilerin yanında alopesiye kadar gidebilen saç dökülmesi olguları da az sayıda bildirilmiştir. Yazımızda fluoksetin tedavisine başladıktan sonra ortaya çıkan ve sadece tedavinin sonlandırılmasıyla düzelen, yaygın saç dökülmesi olan bir olguyu sunmayı amaçladık.

Anahtar kelimeler: Fluoksetin, saç dökülmesi, yan etki



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Date of receipt / Geliş tarihi:
July 22, 2013 / 22 Temmuz 2013

Date of acceptance / Kabul tarihi:
August 17, 2013 / 17 Ağustos 2013

INTRODUCTION

Hair loss is a side effect frequently observed during the use of psychotropic drugs. Lesions may be both local and widespread in a manner expanding throughout the scalp. Psychotropic drugs are deemed to affect telogen phase and cause hair loss (1). Hair loss is often observed as a side effect during the use of valproate, lithium and carbamazepine (2,3). In literature, there are also hair loss cases occurring as a result of the use of antipsychotics (4-6).

Selective Serotonin Reuptake Inhibitors (SSRI) were first used in 1987 with the invention of fluoxetine. SSRIs are antidepressant drugs that are still frequently recommended by doctors. Their common pharmacological characteristic is their strong and selective inhibition of serotonin reuptake. This

characteristic is significant for antidepressant efficacy. Efficacy of SSRI is far stronger than the efficacy of noradrenalin reuptake, alpha 1 adrenergic and histamine receptors and muscarinic cholinergic effects (7).

Side effects such as skin redness, urticaria and eruption may be observed during SSRI use. In addition to dermatological side effects related with drugs in this class, limited cases of hair loss that may even include alopecia were reported (8-14). In literature, there are also hair loss conditions associated with mirtazapine (15) and venlafaxine (16) use.

As hair loss directly influences outer appearance, it can be an important problem for patients. This rare case of side effect may be overlooked and missed by doctors and lead to patient non-compliance as a result. A hair loss condition that developed in association with fluoxetine use is presented in this report.

CASE

Single, 37 years old, primary school graduate, female patient S.D. was assessed with psychiatric consultation after she applied to dermatology polyclinic due to hair loss. Patient's history is as follows: she started escitalopram 10mg/day with diagnosis of depressive disorder 2 years ago. She received treatment for 6 months and discontinued the treatment due to decrease in her complaints. Upon occurrence of complaints such as distress, unhappiness and insomnia, fluoxetine 20mg/day treatment was started by the primary care physician. Following 2 weeks of treatment, the patient whose complaints were significantly reduced, noticed a beginning of hair loss while washing and combing her hair.

In her mental state examination, the patient had a good self-care with full orientation and cooperation and was conscious. Her mood was euthymic and her content of thought corresponded to her mood. Distractibility and insomnia evidence was observed in the patient. Physical and neurological examination was within normal limits. The patient who had no medical disease history used escitalopram with a diagnosis of depressive disorder 2 years ago. No medical and mental history was identified in patient's family history. Blood biochemistry, hemogram, thyroid function tests and blood levels of estrogen, prolactin, dihydrotestosterone, iron and copper, which were assessed in order to exclude the potential organic causes, were in normal limits. Since no other accompanying Axis I mental pathological disorder (trichotillomania etc.) was detected, other psychiatric diseases that may cause hair loss were excluded in differential diagnosis. Furthermore, patient's non-use of an additional drug prevented us from detecting the drugs that may cause hair loss in differential diagnosis. No additional dermatological disease that may lead to hair loss was detected in the patient after the assessment by dermatology clinics.

Considering that there was no pre-treatment period for hair loss and because other potential causes such as family history and organic causes were excluded, hair loss was considered to be probably related to fluoxetine use. The drug was discontinued and escitalopram

10mg/day that the patient stated to have previously benefited from was started. Patient's hair loss was observed to decrease a month later and change back to its initial state within approximately three months. In the meantime, no increase in depressive symptoms of the patient was observed.

DISCUSSION

SSRIs are commonly used medicines; therefore frequency of their side effects also increases accordingly. Dermatological side effects developing in association with this group of drugs include exanthematous eruption, pruritus, skin pigmentation, photosensitivity, fixed drug eruption and alopecia (17).

Fluoxetine is a phenylpropanolamine-derivative SSRI with high tolerability. However, as with patients using other antidepressants, care should be shown against all and any potential side effects. Hair loss cases related with SSRI use were reported, most of which were case reports. In some of these cases, similarly to our case, hair loss was related with fluoxetine use. Jenike (8) reported that a female patient of 53 years of age experienced hair loss within five months after she started 20mg fluoxetine administration and the hair loss decreased and ceased within two months following discontinuation. Bhatara et al. (9) observed that fluoxetine-related hair loss developed in one case and it ceased upon continuing the treatment with sertraline. On the other hand, Ghanizadeh (10) reported that sertraline-related hair loss developed in one case and it ceased upon continuing the treatment with fluoxetine.

Furthermore, cases of hair loss were also reported following the use of different SSRIs. Uzun et al. (11) reported that hair loss developed in one case following sertraline administration and it ceased within 3 months after discontinuing the drug. Unal et al. (12) reported that fluvoxamine-related hair loss developed in a female patient and it decreased after discontinuing the drug. Turkoglu (14) reported that extensive hair loss developed with both fluoxetine and sertraline use in one case and then it ceased after continuing the treatment with venlafaxine. While hair loss is a

displeasing side effect seen during the use of many psychotropic drugs, it is significant in terms of being a relatively rare side effect in clinical practices with SSRIs and specifically fluoxetine.

Physiopathology of hair loss related with antidepressant drug use has not yet been exactly determined. It was stated that hair loss observed in patients receiving antidepressant drug treatment was probably related with personal sensitivity rather than the drug administered (11). Although these drugs are considered to affect zinc and selenium chelates, inefficiency of zinc and selenium supplements in treatment and the lack of information on cellular mechanism are considered as the biggest obstacles to explain this effect (18). It is suggested that most drugs cause alopecia by transforming the hair follicles in growth phase into the hair in resting phase. Thereafter, hairs regrow on all over scalp (1,2).

Human skin was demonstrated to produce serotonin and transform it to melatonin which in turn has an effect on hair growth cycle. Thus, the serotonin balance on skin is considered to affect the balance between hair growth and hair loss (19). It is also reported that alopecia development may be secondary to the increased total body serotonin concentration in patients using antidepressants (20).

It is rather difficult to clinically detect hair loss unless 25-50% of the hair is lost. Therefore, hair loss is a subjective complaint reported by the patient and is mostly observed while washing or combing the hair (1). It is difficult to conclude that the hair loss is associated

with drug use, and no special method is available to establish a final diagnosis. The only method that is known is to discontinue the drug and observe the hair regrowth (16).

During differential diagnosis, trichotillomania, hypothyroidism, hyperthyroidism, hypothalamic-pituitary-gonadal axis hormone disorders and iron, copper and zinc deficiencies, menopause, oral contraceptive use and other drugs potentially cause hair loss, such as antihypertensive, anticoagulant, anticonvulsive, non-steroid anti-inflammatory, antiulcer drugs, should be investigated (21). Necessary biochemical and endocrinological examinations were also conducted on our patient and diseases such as hypothyroid, renal insufficiency, hepatic insufficiency, iron deficiency anemia, copper and zinc deficiency anemia, hepatitis were excluded in differential diagnosis. Also, in our case, no dermatological disease that may cause hair loss has been detected. Observation of hair growth following the exclusion of differential diagnoses and the discontinuation of drug led us to conclude that the hair loss in our case is related to fluoxetine use.

In conclusion, hair loss related with SSRIs is an infrequently observed side effect that may be overlooked and missed. We believe that hair loss should also be investigated during control examinations in addition to other side effects as it may damage the patient's outer appearance and negatively affect his/her compliance to treatment. Studies including larger patient groups that aim to explain the potential mechanism of hair loss are required.

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