

# Hair loss in a female patient after administration of fluoxetine: a case report and review of the literature

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**Abstract. – OBJECTIVE:** Fluoxetine is a pharmacological agent that has been widely used to determine the neurotransmission of serotonin in the central nervous system. It is the drug of choice in the treatment of depression due to its safer profile, fewer side effects, and greater tolerability.

**PATIENTS AND METHODS:** This is a case of a 30 year-old woman suffering from mild depression according to the DSM-V criteria who had been prescribed and administered fluoxetine in a dose of 20 mg p.o./per day.

**RESULTS:** Six weeks after the initiation of the medication, the patient reported hair loss in the frontal area of the skull.

**CONCLUSIONS:** Since fluoxetine is a widely used antidepressant, clinicians should be aware of the skin complications in patients treated with antidepressants. There is further need for therapeutic monitoring in everyday clinical practice and before the prescription of an antidepressant agent, the specific guidelines, side-effect profile, drug-drug interactions and most current indications should always be taken into consideration.

*Key Words:*

Fluoxetine, Side effects, Alopecia, Hair, Depression.

rotonin levels have been shown to be higher in patients with alopecia as compared to controls<sup>2</sup>. Reports of hair loss have been documented with fluoxetine, fluvoxamine, setraline, citalopram escitalopram and paroxetine<sup>3</sup>. We present a case of a female patient who exhibited severe but reversible hair loss after administration of fluoxetine.

## Case Report

A 30 year-old woman suffering from mild depression according to the DSM-V criteria, was administered fluoxetine in a dose of 20 mg .p.o./per day. Six weeks after the initiation of the medication the patient reported hair loss in the frontal area of the skull. The amount of hair loss was increasing on a daily basis and after two months of treatment with fluoxetine the hair dilution in the skull was conspicuous. She reported that she had never had any difficulty with hair loss. Laboratory tests and dermatological examination did not reveal any pathological causes that could be interconnected with alopecia of the patient.

The patient was really concerned and after her psychiatrist's recommendation, she stopped the uptake of the medication. Within four weeks, patient's hair loss was reversed (Figure 1). The patient has provided informed consent for this report and her anonymity has been preserved.

## Introduction

Hair loss is a condition frequently associated with emotional and psychological stress. Drugs and medication have been linked to hair loss and several case reports of hair loss have been published regarding the use of antidepressants, mainly selective reuptake inhibitors SSRIs<sup>1</sup>. Se-

## Discussion

Our patient had no endocrinological history or dermatological problem and she had not taken any other medication prior to her treatment with fluoxetine. It merits noting that up to date setraline<sup>4</sup>



**Figure 1.** Frontal area of the skull during the medication with fluoxetine and after the discontinuation.

and paroxetine<sup>5</sup> have been primarily associated with hair loss. Women have a heightened risk for SSRI-induced alopecia as compared with male counterparts, and the risk of alopecia is different across SSRIs<sup>1</sup>. Literature search in the PubMed by using the keywords “hair loss”, “alopecia” and “fluoxetine” revealed eight other similar case reports. Bhatara et al<sup>6</sup> describe a case report of a 36-year-old woman who developed alopecia seven weeks after treatment with fluoxetine.

In another case report Seifritz et al<sup>7</sup> described a 62-year-old Caucasian woman who after ten weeks with fluoxetine treatment manifested significant alopecia; while loss of hair tufts and apparent balding was observed. Mareth<sup>8</sup> presented a 27-year-old woman with recurrent depressive symptoms, who began fluoxetine 20 mg p.o. each morning and after six months of being symptom free the medication was discontinued due to marked hair loss<sup>8</sup>. In another publication, two case reports have underscored significant hair loss associated with fluoxetine. The first patient was a 65-year-old woman who had been prescribed fluoxetine 20 mg for depression and after five days she had considerable scalp hair loss. The second patient was a 77-year-old woman who noticed large clumps of scalp hair coming out during brushing after a three weeks treatment with fluoxetine 20 mg daily<sup>9</sup>. Gupta et al<sup>10</sup> presented a 72-year-old woman with major

depression who was treated with fluoxetine 20 mg/day. She began noticing significant hair loss from the scalp within two weeks without any other dermatological problem. Ananth et al<sup>11</sup> reported two cases in which patients treated with fluoxetine suffered from hair loss and resolved itself when fluoxetine was discontinued. In the first case a 46-year-old woman was obsessed with becoming contaminated and compulsive about ritual hand washing and cleaning. A dose of fluoxetine 80 mg/day was administered and hair loss was observed after a six-week period of treatment. In the second case, a 30-year-old woman who was suffering from contamination obsessions and a number of cleaning rituals was treated with 60 mg/day of fluoxetine and she developed alopecia three months later<sup>11</sup>. In another case report, a 29-year-old woman diagnosed with generalized anxiety disorder initiated therapy with fluoxetine 20 mg/day and after three months she noticed slight hair loss<sup>12</sup>. Lastly, Jenike<sup>13</sup> reported a 53-year-old woman suffering from severe obsessions and after treatment with fluoxetine 40 mg twice daily reported huge clumps of hair five months later<sup>13</sup> (Table I).

Findings on discontinuation of fluoxetine and ensuing recovery of hair loss lend further credence to the assumption that hair loss is a side effect of fluoxetine. Further investigation is warranted so as to shed light on the causes of this side effect.

**Table I.** Case studies about fluoxetine and hair loss ordered by the year of publishing.

Authors	Year	Journal	Diagnosis	Dose of fluoxetine (mg/day)	Onset of hair loss
Bhatara et al <sup>6</sup>	1996	J Clin Psychiatry	Depression	20	7 weeks
Seifritz et al <sup>7</sup>	1995	Can J Psychiatry	Bipolar Disorder	20	5 weeks
Mareth <sup>8</sup>	1994	J Clin Psychiatry	Depression	20	24 weeks
Ogilvie et al <sup>9</sup>	1993	Lancet	Two cases		
			a. Depression	a. 20	a. 2 weeks
			b. Depression	b. 20	b. 3 weeks
Gupta et al <sup>10</sup>	1991	Gupta S	Depression	20	2 weeks
Ananth et al <sup>11</sup>	1991	Ananth J	Two cases		
			a. OCD	a. 80	a. 6 weeks
			b. OCD	b. 60	b. 12 weeks
O'Bryan et al <sup>12</sup>	2004	PrimCare Companion J Clin Psychiatry	GAD	20	12 weeks
Jenike <sup>13</sup>	1991	Am J Psychiatry	OCD	40	18 weeks

## Conclusions

Dermatologists and psychiatrists must be informed about this adverse side effect. In conclusion, alopecia constitutes a rare side effect of fluoxetine-based treatment. There is an imperative need for close therapeutic monitoring during routine clinical practice and prior to the prescription of any antidepressant agent, the specific guidelines, side-effect profile, drug-drug interactions and most current indications should always be obtained and taken into account.

## Conflict of Interest

The authors have no conflicts of interest to disclose. The authors did not receive outside funding to complete this research.

## Statement of Ethics

Published research complies with the guidelines for human studies and animal welfare regulations.

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