

Case Report

Hair loss due to pregabalin: a case report

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Abstract

The Ministry of Health in Turkey approved the use of pregabalin at 150-600 mg/day doses in peripheral neuropathic pain, generalized anxiety disorder, fibromyalgia and as adjunctive therapy in adult patients with partial epilepsy. Hair loss is rarely seen among psychotropic drugs. This side effect is most frequently reported in mood stabilizers among psychotropic agents. In this case, we aimed to present a case of common hair loss, which was not seen in the literature before, occurred after starting pregabalin treatment and resolved only by discontinuation of treatment.

Keywords: Alopecia, hair loss, pregabalin

Özet

Türkiye’de Sağlık Bakanlığı pregabalinin periferik nöropatik ağrıda, yaygın anksiyete bozukluğunda, fibromiyaljide ve parsiyel epilepsili yetişkin hastalarda ek tedavi olarak 150–600 mg/gün dozunda kullanımını onaylamıştır. Saç dökülmesi psikotropik ilaçlar arasında nadiren görülür. Bu yan etki psikotropik ajanlar içinde en sık duygudurum düzenleyicilerde bildirilmektedir. Biz bu vakada daha önce literatürde bildirimine rastlamadığımız pregabalin tedavisine başladıktan sonra ortaya çıkan ve sadece tedavinin sonlandırılmasıyla düzelen, yaygın saç dökülmesi olan bir olguyu sunmayı amaçladık.

Anahtar Kelimeler: Alopesi, pregabalin, saç dökülmesi

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INTRODUCTION

Pregabalin, gamma-aminobutyric acid derivative is a new generation antiepileptic and leucine analog. Although its mechanism is not very clear, it affects the excitatory neuronal conduction via $\alpha 2$ - δ ligands in voltage-sensitive calcium channels. It also reduces the release of neurotransmitters such as glutamate, neurodrenaline and substance P (1). It is used as adjuvant therapy for central and peripheral neuropathic pain, generalized anxiety disorder, fibromyalgia and anxiety disorders in adult patients with partial epilepsy. It can be used off-label in the US for generalized anxiety disorder, panic disorder and social anxiety disorder. Its activity may be potent in mental and somatic symptoms of generalized anxiety disorder. It is the first drug approved by the FDA for the treatment of fibromyalgia. Common side effects are sedation, dizziness, ataxia, tremor, disarticulation, vomiting, cotton mouth, concentration difficulty, weight gain, and blurred vision (1, 2).

Hair loss is common in both men and women, where drug use is common for any reason. Drug-related alopecia is usually a reversible side effect, often observed within 3 months after the start of treatment, and disappears with the discontinuation of the associated drug (3). The drug-related

alopecia diagnosis is based on the chronology of drug exposure, the onset of hair loss and the exclusion of other causes of alopecia. When a drug is suspected, it is discontinued to test (4). Here, we aimed to present a case with generalized hair loss that developed after the initiation of pregabalin treatment and resolved only after termination of treatment, because it was not previously reported in the literature.

CASE

Patient is 36 years old female patient who had complaints of unease, anxiety, palpitations, fear of getting bad news, lumbar-neck pain for about 2 years. She has started treatment with several selective serotonin reuptake inhibitors, serotonin-noreadrenaline reuptake inhibitors, tricyclic antidepressants, hypnotic drug treatments for generalized anxiety disorder but her treatments were discontinued due to side effects such as nausea, unease, weight gain, cotton mouth, sleep disorder, dizziness, constipation. She received consultation for long lasting lumbar, neck, back pain by physical therapy and rehabilitation physicians and her MR imaging was within normal limits. Patient was diagnosed with fibromyalgia. Pregabalin 75 mg / day was started and the dose was increased to 150 mg / day within 1 week. One month later, in psychiatry and physical therapy and rehabilitation diseases outpatient controls,

there was a partial reduction in patient's anxious complaints and a marked reduction in pain complaints. However, due to significant hair loss that started 21 days after pregabalin treatment, patient was followed for about 2 weeks for side effects. Drug treatment was terminated due to continued hair loss. After 15 days of discontinuation of pregabalin, hair loss was completely regressed. She has been admitted and followed up in cognitive behavioral psychotherapy program as she denied receiving medical treatment. She had no additional medical disease and family history. Hemogram, liver, thyroid and renal function tests, endocrinologic and dermatologic parameters were within normal limits.

DISCUSSION

When there is a connection between the starting date of the drug and the onset of hair loss, it is generally thought that the medicine causes hair loss. All hair has a growth phase called anagen, a resting phase and the telogen phase. Anagen lasts about 3 years in the scalp, telogen about 3 months, but these durations may largely vary between individuals (5, 6). Medications may affect prematurely the passage of the anagenic follicles into the resting phase, resulting in premature hair removal and subsequently the proportion of telogen hair increases. Telogen effluvium is defined as

excessive loss of telogen hair due to pathological hair cycle of telogen hairs(7). Telogen effluvium may affect hair in all areas of the body, but usually only loss of hair in the scalp is symptomatic. Noteworthy hair loss is usually seen 2-3 months after drug use (4). Hair loss in our case started 21 days after pregabalin was started for fibromyalgia.

For medical history, questioning the factors that trigger hair loss such as thyroid diseases, birth and drug use as well as the duration of loss is important. Hair loss lasting less than six months is considered acute telogen effluvium, while those lasting longer than 6 months are considered chronic telogen effluvium. Pathological conditions such as systemic diseases, drugs, fever, emotional stress, weight loss, iron and vitamin D deficiency, inflammatory scalp diseases as well as physiological conditions such as pregnancy can cause acute telogen effluvium. Discontinuation of oral contraceptives can also cause acute telogen effluvium. Chronic telogen effluvium is idiopathic and has a chronic and fluctuating course (8).

Before considering the drug used as the cause for hair loss, it is necessary to exclude the presence of other potential factors that cause hair loss such as fever, anemia, serious systemic diseases, emotional stress, pregnancy. Many reports in the literature

describe various drugs causing hair loss, but it is important to investigate other etiologic factors in patients as it is not clear which mechanism causes hair loss. 50-150 hair may be lost in a daily cycle and this number varies with age and season. Genetic factors, hormonal profile and immune system can impair normal hair cycle and hair production by acting on the hair follicle (7). Drug-induced alopecia is usually clinically diffuse, non-scarring losses often localized only on the scalp and reversible.

Axillary, pubic and total body hair losses are rare. There is also no follicular or interfollicular inflammation. It is more common in women than in men (4). It is difficult to make a decision about drug-induced hair loss and there is no specific method for a definitive diagnosis. The only way to understand this is to discontinue the drug used and monitor the hair regeneration. When the same drug is restarted, the recurrence of hair loss is considered as a finding confirming the association with the drug (4). In our case, after pregabalin was started for fibromyalgia, hair loss that cannot be explained by other reasons started and hair loss did not stop until the drug was discontinued. On the 15th day after pregabalin was discontinued, hair loss stopped completely.

Hair loss can be seen as a side effect with the use of mood stabilizers (lithium and sodium valproate) and antidepressants. The incidence of alopecia in lithium users is 12% (3). Sodium valproate-induced alopecia is dose-dependent and the incidence of alopecia decreases when the dose is reduced (7). Carbamazepine-induced hair loss is less common than with lithium and valproate (8). Antidepressant drugs can also cause telogen hair loss. The most common cause of alopecia is fluoxetine. Fluoxetine-induced hair loss may start within a few months and last up to 1 year (4, 7). Hair loss has also been reported in male patients using low-dose sertraline and it has been observed that hair loss has ceased upon drug withdrawal (9). Rarely, tricyclic antidepressants have been reported to cause hair loss (7). In one case, generalized hair loss associated with the use of atypical antipsychotic olanzapine (10).

Alopecia can cause more serious problems due to cosmetic reasons especially in female patients, which may affect the compliance of patients. In our case, hair loss started 21 days after starting the drug, and the side effect was totally resolved when the drug was discontinued. The alopecia mechanism associated with pregabalin is not yet known. Further case reports and studies are needed.

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