

Year : 2015
Volume : 2
Issue Number : 2
Doi Number : 10.5455/JNBS.1423170020

Article history:

Received 4 July 2015
Received in revised form 123 July 2015
Accepted 3 August 2015

SERTRALIN INDUCED NORMOPROLACTINEMIC GALACTORRHEA

SERTRALİNİN İNDÜKLEDİĞİ NORMOPROLAKTİNEMİK GALAKTORE

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Abstract

Galactorrhea is defined as non-puerperal lactation and frequently occurs as an adverse drug reaction due to typical antipsychotics. Furthermore, antidepressants, especially SSRIs, cause galactorrhea since the introduction of imipramine to psychiatry practice. Although galactorrhea usually accompanies increased prolactin levels, in some cases prolactin levels could be within the normal range. To date there are two case reports of normoprolactinemic galactorrhea due to sertraline and here we report a patient who developed normoprolactinemic galactorrhea 1 month after initiating sertraline 50 mg/day.

Keywords: Sertraline, Galactorrhea, Normoprolactinemic

Özet

Galaktore psikiyatri pratiğinde sıklıkla tipik antipsikotiklerin bir yan etkisi olarak ortaya çıkmaktadır. Öte yandan imipraminin antidepresan olarak kullanılmaya başlanmasından beri, antidepresanlara bağlı da galaktore gelişebileceği bildirilmiştir. Galaktore klinikte sıklıkla artmış prolaktin düzeyleri ile karşımıza çıkmakla beraber bazı durumlarda prolaktin düzeyleri normalken de gelişebilmektedir. Bu güne kadar sertralinle ilgili 2 tane prolaktin düzeyleri normal sınırlarda iken gelişen galaktore olgusu bildirilmiştir. Bu vakamızda sertralin 50 mg/gün başlandıktan 1 ay sonra gelişen galaktore olgusunu sunmayı amaçladık.

Anahtar Kelimeler: Sertralin, Galaktore, Normoprolaktinematik

1. Introduction

Galactorrhea- in other terms, non-puerperal lactation- is a condition that usually occurs in the presence of hyperprolactinemia. The most frequent cause of galactorrhea is prolactinoma. Other medical conditions related with galactorrhea may be sorted as hypothyroidism, liver and renal failure. In psychiatry practice it usually occurs as an adverse drug reaction due to typical antipsychotics. As is known, dopaminergic antagonism of typical antipsychotics is responsible from hyperprolactinemia and galactorrhea (Egberts et al., 1997). After imipramine came out to psychiatry practice, antidepressant induced galactorrhea is present as an adverse drug reaction since 1964 (Klein et al., 1964). Most of the cases were reported with serotonergic antidepressants thus far. Although increased serum prolactin levels frequently accompany galactorrhea, thirty percent of patients could be normoprolactinemic. Normoprolactinemic galactorrhea is a rare side effect of antidepressants and its mechanism is not fully understood, even though role of prolactin in galactorrhea is not clear (Kaye, 1996).

Here we report a patient who developed normoprolactinemic galactorrhea 1 month after commencing sertraline 50 mg/day.

2. Case

A 40-year-old female was admitted to our clinic with complaints of anhedonia, unwillingness, increased sleep, decreased appetite, feeling sad and loss of energy. Her symptoms were present through 3 months. Routine biochemical tests were normal. Thus, the patient was diagnosed as major depressive disorder. We commenced sertraline 25 mg/day and recommended the patient to increase dose to 50 mg/day after one week. One month after initiating sertraline (three weeks after increasing dose to 50mg/day), the patient stated that she was feeling very well, severity of her symptoms decreased significantly but she was complaining of galactorrhea. Her prolactin level was 10,8. Thyroid, renal and liver function tests, and serum cortisol level were within normal range. Magnetic resonance of brain was carried out to determine whether galactorrhea was due to pituitary adenoma, and it was normal. Consultation of obstetrics and gynecology,

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endocrinology, general surgery and neurology were asked. Nothing significant was found related with galactorrhea. Therefore, galactorrhea was considered to be related with sertraline and we recommended stopping medication. We asked the patient to visit our clinic regularly. Four weeks after discontinuation galactorrhea stopped.

3. Discussion

Escitalopram, citalopram, fluoxetine, paroxetine and sertraline may cause galactorrhea. Clinical presentation of SSRI induced galactorrhea could be different. Although in some cases prolactin levels could be high, there are few case reports of normoprolactinemic galactorrhea. Furthermore, onset of galactorrhea may vary from patient to patient. A report describes acute onset within three days and the other mention late onset up to 8 months (Nebhinani, 2013; Polat and Turan, 2014).

There are two case reports of normoprolactinemic galactorrhea with sertraline. Nebhinani presented a 32 year-old female, experienced normoprolactinemic galactorrhea 2 days after increasing sertraline from 25 mg/day to 50 mg/day. Prolactin level was 15,3 (normal range:2.8-29.2). They switched to desvenlafaxine to manage this condition. Eight weeks after discontinuation galactorrhea stopped (Nebhinani, 2013). Other case was reported by Sayar et al, in which patient developed galactorrhea 1 week after increasing sertraline from 25 mg/day to 50 mg/day. They stopped sertraline and followed patient closely. In this case, galactorrhea stopped 16 days after discontinuation (Ozten et al., 2015). Although they didn't measure prolactin level Bronzo et al reported galactorrhea in a 37-year-old woman after taking 100 mg/day for 5 weeks. Twenty one days after discontinuing sertraline, this patient recovered completely (Bronzo and Stahl, 1993). Our case is consistent with previous reports that support sertraline probably induce normoprolactinemic galactorrhea.

The mechanism of SSRI induced normoprolactinemic galactorrhea is elusive. A probable mechanism is direct stimulation of prolactin release in hypothalamus by serotonin with mediation of postsynaptic 5-HT receptors (Mondal et al., 2013). Furthermore serotonin

may inhibit tuberoinfundibular dopaminergic neurons indirectly (Arya, 1994). In addition, serotonin interacts with prolactin-releasing factors. One of them is vasoactive intestinal protein (VIP), which increases prolactin gene expression (Wanke and Rorstad, 1990). Oxytocin also participates VIP-induced pathway of prolactin release and inhibits tuberoinfundibular dopaminergic pathway (Samson et al., 1989).

In conclusion, increasing data point out that SSRIs cause both hyperprolactinemic and normoprolactinemic galactorrhea. Psychiatrists should be aware of that patients who take not only antipsychotics but also antidepressants (especially SSRIs) could develop galactorrhea as an adverse drug reaction.

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