

Citalopram Related Euprolactinaemic Galactorrhoea A Case Report

H Belli¹, MK Vardar¹, S Yesilyurt¹, ES Gul¹, C Ural¹

INTRODUCTION

Dopamine has an inhibitor effect on prolactin and inhibition of dopamine increases the serum prolactin level. Several publications (1, 2) identified the serotonergic drugs as one cause of hyperprolactinaemia; Selective Serotonin Receptor Inhibitor (SSRIs) were sometimes considered one of the most frequent iatrogenic causes of hyperprolactinaemia (3). All SSRIs were identified as a cause of hyperprolactinaemia: paroxetine (3), fluoxetine (4), fluvoxamine (5), citalopram (6) and sertraline (3). A case was reported with escitalopram-induced euprolactinaemic galactorrhoea (7). In this article, we also reported on the case of a 27-year-old woman who was treated with citalopram for her depression and developed galactorrhoea without hyperprolactinaemia.

Case Report

Ms P, a 27-year old female patient, presented to the outpatient clinic with a history of a pervasive sense of sadness, loss of pleasure and interest in activities, insomnia, loss of appetite, decrease energy, social withdrawal, feelings and thoughts of guilt and shame.

She had become increasingly upset in the last two months and noticed depressive symptoms. Her psychiatric history did not include previous episodes of depression. Her elder sister experienced two major bouts of depression. Results of a general physical examination and laboratory investigations were normal. She received 20 mg citalopram and at the end of week 3, citalopram was increased to 30 mg daily. Remission was achieved at the 7th week of treatment with a Hamilton Depression Rating Scale (HAM-D) score of 8. Five weeks later, breast tenderness, chest pain and galactorrhoea emerged in the patient. The remainder of the physical examination was normal. The serum prolactin level was tested and was normal.

There were no abnormalities in blood chemistry and thyroid function tests, follicle stimulating hormone (FSH) and leuteinizing hormone (LH) levels were normal. The patient then had an electroencephalogram (EEG) and magnetic resonance imaging (MRI) focussed on the brain and particularly the pituitary gland, and results of these tests were

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From: Bağcılar Education and Research Hospital, Department of Psychiatry, İstanbul, Turkey.

Correspondence: Dr H Belli, Bağcılar Eğitim ve Araştırma Hastanesi Bağcılar/İstanbul, Turkey, Fax: +90 214 440 40 02, e-mail: hasanbelli@myynet.com.

within normal limits. Mammography test was also within normal limits.

Citalopram treatment was stopped and 100 mg fluvoxamine daily was prescribed. After 15 days, fluvoxamine was increased to 150 mg daily. The symptoms of galactorrhoea subsided in 2 weeks and the patient was free of symptoms at the end of the 3rd week. At the end of the 3rd week under fluvoxamine treatments, he was still euthymic with a HAM-D score of 6. The patient has been treated with the continuing dose of fluvoxamine for 6 months, without recurrence of galactorrhoea.

DISCUSSION

Dopamine has an inhibitor effect on prolactin and inhibition of dopamine increases the serum prolactin level. Egberts *et al* (8) found that SSRIs were associated with an 8 times higher risk for galactorrhoea as compared with other antidepressants. All SSRIs were identified as a cause of hyperprolactinaemia: paroxetine (3), fluoxetine (4), fluvoxamine (5), citalopram (6) and sertraline (3). There is no clear correlation between prolactin level and galactorrhoea (8). However, two mechanisms were considered to explain the prolactin release induced by the serotonergic system: the presynaptic inhibition of dopamine discharge by the serotonergic receptors (8) or the direct stimulation of the hypothalamic postsynaptic serotonergic receptors (9). A case was previously reported with galactorrhoea and hyperprolactinaemia induced by escitalopram (10). However, a case was reported with escitalopram-induced euprolactinaemic galactorrhoea (7). In this article, we also report the case of 27-year old woman who was treated with citalopram for her depression and developed galactorrhoea without hyperprolactinaemia. Present studies show that euprolactinaemic galactorrhoea can be seen and may be related to an effect on thyroid releasing hormone (TRH) (11). Although hormone measurements were normal in this case, TRH sensitivity may be another factor that plays a role in the emergence of galactorrhoea. Citalopram by itself has been shown to cause euprolactinaemic galactorrhoea. Although galactorrhoea is sometimes seen after treatment with serotonergic medications, it appears to be a reversible side effect. It is important that physicians be familiar with this complication and the signs and symptoms.

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