

CASE REPORT

## A Case of Paroxetine-Induced Galactorrhoea

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### Introduction

The selective serotonin reuptake inhibitors (SSRI) are becoming one of the commonest varieties of medicine sold worldwide. Their proved efficacy in variety of psychiatric conditions (e.g. depression, OCD, panic disorder, PTSD, etc), lesser side effects, safety in overdose, ease of administration, lesser drug interaction, ease of dose titration is responsible for the popularity of the SSRIs (Hirschfeld, 2001). Commonly mentioned side effects of SSRI medicines are gastrointestinal disturbances, sexual problems etc. Galactorrhoea is only rarely mentioned among SSRI-related side effects. However, Egberts et al. (1997) reported an 8-fold higher risk for galactorrhoea with SSRIs compared with other antidepressants.

We here describe a case of galactorrhoea induced by the SSRI paroxetine.

### Case Report

A 16 year old girl, a student of 10<sup>th</sup> standard appearing for the school-leaving examination in 2004, presented with severe anxiety regarding the ensuing examination to the extent that she was thinking of skipping it at times. The symptoms were present for more than 6 months and her results were not up to expectation in the last two school examinations, though she had always been among the top three of her class. She was anxious regarding the examination. She was also having free-floating anxiety, worrying excessively for any minor matter, be it familial or social, having loss of concentration and always feeling jittery and

irritable. Apart from these symptoms, she had other features of depression like low mood, fatigability, low self esteem, crying spells, blaming herself for not being a worthy child of her parents etc. Associated obsessive symptoms like excessive concern about cleanliness fear of dirt and contamination was also present.

Taking all these factors into account, it was thought that paroxetine would be the drug of choice because it has been found to be effective on almost all anxiety disorders, including social anxiety disorder, as well as depression. Paroxetine in the controlled release formulation was started at a dose of 12.5 mg, and within 10 days, the dose was increased to 25 mg. Within a month, she showed marked improvement in all the spheres. She became more confident, her mood was lifted, she could concentrate on studies better and she got rid of her negative thoughts. This improvement was reflected in the performance in her next examination where she fared much better than before.

After about 5 week of continuous treatment with 25 mg paroxetine, the girl noticed milk coming out spontaneously from both the nipples, the volume being significant. She became frightened and asked for help. She was examined and was found to be having galactorrhoea (i.e. non puerperal discharge milk containing fluid from breast).

We sought to eliminate the most likely causes of galactorrhoea. The girl was unmarried, having regular periods, and no other abnormality could be found on physical examination. No evidence of any extrapyramidal symptoms was found. Symptoms suggestive of raised intracranial pressure like headache or visual disturbance were not present, and she had no history of local surgery or herpes zoster infection. Hypothyroidism or renal impairment was excluded by measurement of TSH, urea, and creatinine. Serum prolactin was

measured, and was found to be within normal limits. So, paroxetine was assumed to be responsible for the galactorrhoea and was stopped, following which, the galactorrhoea stopped completely within 3 days. The prolactin level was again found to be normal when assessed 3 days after stoppage of galactorrhoea.

## Discussion

SSRI have been occasionally reported to cause galactorrhoea, and there have been a few case-reports of paroxetine-induced galactorrhoea (Davenport & Velamoor, 2002). From the classical physiological perspective one would expect SSRI to be responsible for hyperprolactinemia, which will cause galactorrhoea. Hyperprolactinemia may be caused by two distinct mechanisms – the presynaptic inhibition of dopamine discharge by serotonergic receptors (the mechanism considered as the most probable by Egberts et al, 1997) or the direct stimulation of hypothalamic postsynaptic serotonergic receptors (Bronzo & Stahl, 1993).

In our case, we failed to find any increase in serum prolactin levels. A similar absence of increased prolactin levels in drug-induced galactorrhoea was reported by Davenport and Velamoor (2002), Bonin et al (1997), Gonzalez et al (2000), Morrison et al (2001). Prolactin level is normal in 50% women presenting with galactorrhoea (Wong & Holdaway, 1996). There is no clear correlation between prolactin levels and galactorrhoea (Egberts et al, 1997). Thus, the true mechanism of galactorrhoea is unknown in many cases. More research is necessary to understand induced SSRI-induced galactorrhoea.

Clinicians need to be aware of this unusual side-effect of paroxetine (and possibly other SSRIs), which is embarrassing and frightening especially to young unmarried women and may add to the illness-related stigma. Stoppage of the drug

usually results in the subsidence of galactorrhoea. However, if galactorrhoea fails to subside, investigations to exclude neoplastic, structural and metastatic causes will be necessary.

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