

Case Study

A RARE INSTANCE OF LEVOSULPIRIDE-INDUCED GALACTORRHOEA

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Received: 05 Jan 2016 Revised and Accepted: 18 Feb 2016

ABSTRACT

Antipsychotics are well known to affect prolactin secretion, resulting in hyperprolactinemia and its consequent manifestations like amenorrhoea, galactorrhoea, gynaecomastia, etc. Levosulpiride is a novel antipsychotic drug with additional antidepressant, antiemetic and antidyspeptic actions. The authors report a case of levosulpiride-induced hyperprolactinemia, presenting as galactorrhoea in a female patient with dyspepsia at Kasturba Hospital, Manipal, in South India.

Keywords: Hyperprolactinemia, Prolactin, Dyspepsia, Antipsychotic, Dopamine

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INTRODUCTION

Levosulpiride is the levorotatory enantiomer of sulpiride, a substituted benzamide. Chemically, it is N-[(1-ethylpyrrolidin-2-yl)methyl]-2-methoxy-5-sulfamoyl-benzamide. The drug is being used as an antipsychotic, an antidepressant, an antiemetic and an antidyspeptic [1]. It may also find use in the treatment of somatoform disorders, premature ejaculation, burning mouth syndrome, etc [2, 3]. The main mechanism of antipsychotic action of levosulpiride is blockade of the D₂ dopaminergic receptors, preferentially located on the presynaptic membranes in the dopaminergic pathways of the brain. In the GIT, the drug acts by blocking enteric inhibitory dopaminergic D₂ receptors [1].

As with other typical (1st generation) antipsychotics, levosulpiride can also block the dopaminergic receptors, which are normally inhibitory in nature with respect to prolactin release [4]. Thus, prolactin secretion is increased, resulting in hyperprolactinemia, although there are no reports available in the current Indian literature, to the best of our knowledge. We present a case of levosulpiride-induced galactorrhoea, secondary to hyperprolactinemia. This report has been written after obtaining consent from the patient.

CASE REPORT

A 52-year-old female came to Kasturba Hospital, Manipal, with history of galactorrhoea for the past 15 d. On further elicitation of her recent medical history, it was found that she was suffering from dyspeptic symptoms, for which she had been prescribed oral levosulpiride. She was on this medication for the past 3 w. There was no history of headache or visual disturbances. On general examination, her vital signs were stable. Local causes of galactorrhoea were ruled out. The patient's systemic examination was within normal limits.

Routine laboratory investigations, including a complete haemogram, renal and liver function tests were all within normal limits. An MRI of the brain was done, which came out to be normal. A hormonal assay was done, which revealed a serum prolactin value of 202 ng/ml (which was high; normal levels being between 2 to 29 ng/ml for a non-pregnant female), TSH of 1.810 mIU/ml (which was within the normal range), LH of 5 mIU/ml (which was normal) and FSH of 7.2 mIU/ml (which was also normal).

Since local and central causes of hyperprolactinemia were ruled out, a diagnosis of levosulpiride-induced galactorrhoea was arrived at,

based on the existing data on the adverse effect profile of antipsychotic medication.

Following this, the patient was taken off levosulpiride therapy. On the next follow-up visit, the patient was symptomatically better, and her prolactin level was also found to be within normal limits.

DISCUSSION

In patients with functional dyspepsia, levosulpiride is found to be effective, as evidenced in the present case. In addition to the dopaminergic blockade, the role of 5HT₄ receptor stimulation has also been postulated for the drug's efficacy as a prokinetic drug [1]. Levosulpiride is well known to cause movement disorders due to dopaminergic inhibition in the nigrostriatal pathway, resulting in Parkinson-like features, acute dystonias, Rabbit syndrome, akathisia, etc [5].

But, there are not many reports on the drug's ability to cause disturbances in the secretion of prolactin.

However, as with other similar drugs, hyperprolactinemia, in this case, is expected to be secondary to dopaminergic inhibition, resulting in galactorrhoea and amenorrhoea, as reported in a few clinical trials [6]. The general consensus for management of such cases is discontinuation of the drug, as was done in our patient as well, which led to relief of symptoms and normalization of prolactin levels.

CONCLUSION

To conclude, any patient who presents with galactorrhoea should be asked about history of use of antipsychotic medication, although the use of such drugs may not be solely for their antipsychotic property. As seen in this case, the patient was prescribed levosulpiride, not for the antipsychotic indication, but for dyspepsia. Hence, drug-induced hyperprolactinemia should be kept in mind when arriving at differential diagnoses in such cases.

CONFLICT OF INTERESTS

Declare none

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