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CASE REPORT **OPEN ACCESS**

Levosulpiride Induced Hyperprolactinemia and Galactorrhea: A Case Report

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A B S T R A C T

Galactorrhea is defined as milky discharge from breast in men or women who are not breastfeeding for more than one year. It may result from excessive secretion of prolactin from anterior pituitary or from increased sensitivity of breast tissue to prolactin. There are many causes of hyperprolactinemia and galactorrhea and the most sinister being pituitary tumours. Occasionally certain drugs can cause hyperprolactinemia leading to galactorrhea and irregular menstrual cycles. Levosulpiride which is commonly used for its antiemetic and antidyspeptic actions can also rarely cause hyperprolactinemia and galactorrhea. We present a case of galactorrhea in a female of 35 years who was on treatment for dyspeptic symptoms with a combination of pantoprazole and levosulpiride, which subsided after stopping the offending drug. Critical review of prescription in dealing with a case of galactorrhea can avoid unnecessary investigations.

Keywords: Levosulpiride, Hyperprolactinemia, galactorrhea.

INTRODUCTION

Levosulpiride, the levorotatory enantiomer of sulpiride has antipsychotic, antidepressant, antiemetic and antidyspeptic actions. The main action of Levosupiride is mediated through the blockage of D2 receptors in central nervous system and gastrointestinal tract. The antagonistic action of D2 receptor in gastrointestinal tract leads to its therapeutic action and inhibition of D2 receptor in central nervous system leads to increased prolactin secretion from anterior pituitary which is one of its adverse effect. Release of prolactin from anterior pituitary is regulated by inhibitory effect of dopamine and stimulatory effect of thyrotropin releasing hormone, oxytocin ,vasopressin, vasoactive intestinal peptide and angiotensin II[4].Any condition that produces an imbalance between them can lead to increased secretion of prolactin which can cause galactorrhea and menstrual abnormalities. Galactorrhea is defined as secretion of milky discharge from breast in men or women who are not breastfeeding for one year. It may result from excessive secretion of prolactin from anterior pituitary or from increased sensitivity of breast issue to prolactin. Many conditions cause galactorrhea and the most sinister being pituitary tumours. Although uncommon, certain drugs like antipsychotics, antidepressants, estrogen containing drugs, prokinetics and opioids can cause hyperprolactinemia and galactorrhea due to inhibition of D2 receptors in anterior pituitary [5]. Levosulpiride due to its prokineic and antidyspeptic actions is increasingly being used often in combination with proton pump inhibitors. There are a few case reports available in the literature where long term use of the drug had resulted in hyperprolactinemia and galactorrhea [1.2,3] We report a case of 35 years old lady who developed hyperprolactinemia and galactorrhea four weeks after initiation of Levosulpiride in combination with pantoprazole and resolution of her symptom within two weeks after stopping the culprit drug.

CASE REPORT

A 35 years old female patient who is a known as of hypothyroidism since last ten years on replacement doses of thyroxine presented to our hospital on 28/12/2024 with complaints of milky discharge from both her breasts since last ten days. There was no history of pain, fever or swelling of breasts. No history of headache, vomiting or diminished vision.

Patient had her last child birth in 2018 and had stopped breast feeding the child after one and half year of child birth. She had cerebral venous thrombosis in the puerperal period for which she had received anticoagulant for six months. The general examination was unremarkable and the local examination showed that there was no tenderness of the breast and no mass felt. Investigations showed that her serum prolactin level was high: 77.49 ng/ml (range – premenopausal: 3.34 to 26.72 ng/ml) and TSH was in normal range. On review of her previous treatment it was found that she was on a combination drug of Pantoprazole 40 mg with Levosulpiride 75 mg once a day since 19/11/2024 for her dyspepstic symptoms started by a surgeon at a different hospital. Presuming that the hyperprolactinemia and galactorrhea was a consequence of treatment with levosulpiride, she was asked to withhold it and to get her serum prolactin repeated after two weeks. Her galactorrhea subsided after twelve days of stopping Levosulpiride and repeat investigations after two weeks showed that the serum prolactin level had come down to 13.34 mg/ml.

DISCUSSION

Serum prolactin level can range between 40 ng/ml to 261.81ng/ml for drug associated galactorrhea and 140 ng/ml to 3241 ng/ml for prolactinomas[1].Drug inake commonly leads o increase in serum prolactin level to between 100 to 200 ng/ml and rarely above 200ng/ml[4]. Stopping the drug usually leads to fifty percent fall in prolactin level in 72 hours but complete normalisation may take two weeks[1].Hence repeating serum prolactin level two weeks after stopping the culprit drug will help differenciate between drug induced and other causes of hyperprolactinemia..However, a serum prolactin level above 300ng/ml should prompt the physician to look for other causes. Our patient had slight elevation of serum prolactin level but had developed unpleasant symptom of galactorrhea four weeks after starting levosulpiride 75 mg sustained release once a day in combination with pantoprazole and her prolactin level dropped down to normal two weeks after stopping the drug with resolution of symptoms. Awareness among the health professionals about this side effect of the drug can avoid unnecessary investigations and anxiety among the patients.

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