



## Unusual presentation of Domperidone Induced Galactorrhoea in postmenopausal women: A case report

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### ABSTRACT

Domperidone is a medication primarily used to relieve nausea and vomiting. Galactorrhoea, the production of breast milk in individuals not breastfeeding is an uncommon adverse effect of domperidone. Here we present a case of a 60-year-old postmenopausal women who developed domperidone induced galactorrhoea, which adds insights in identifying an uncommon side effect of domperidone that has a limited documentation in the medical literature. Upon de-challenging the suspected drug, Domperidone, Galactorrhoea resolved.

### INTRODUCTION

Domperidone is an antiemetic and prokinetic drug used for treating stomach related issues, such as nausea and vomiting, as well as stomach pain and discomfort caused by decreased movement of stomach and upper gastrointestinal tract. It is a peripheral D2 receptor antagonist with selective peripheral action restricted to the upper gastrointestinal tract. It has got very few side effects, of which galactorrhoea is very rarely seen. Domperidone is among the cheapest and effective anti-emetic drug which is very routinely used as an over-the-counter drug. Other commonly reported side-effects of domperidone are dry mouth, loose stools, headache, rashes and cardiac arrhythmias.<sup>1</sup>

Though domperidone is linked to galactorrhoea, a web search in the medical literature yielded only few case reports. Here we present a case of drug induced galactorrhoea in a post-menopausal female after the oral administration of therapeutic dose of domperidone (30mg).

### CASE PRESENTATION

A 60-year-old, post-menopausal women presented to the

gastroenterology outpatient department with complaints of milky breast discharge for past few days. She suffered from upper respiratory tract infection along with upper abdominal pain and gaseous dyspepsia for which she was prescribed with capsule Nexpro Rd 40 (Esomeprazole 40 mg + Domperidone 30 mg) 1-0-0 and Tab pinaverium bromide 1-0-0 for the past one month. She had history of hypertension, Dyslipidemia and was taking Tab. bisoprolol 1.25mg, Tab. rosuvastatin 5mg. On examination there was no history of increase in breast size or mastalgia. There were no other findings from other than galactorrhoea and breast tenderness. Her blood pressure, blood routine and all other routine investigations including liver, kidney and thyroid function tests were normal. Further laboratory investigations revealed an elevated prolactin level of 100ng/ml. In view of laboratory finding domperidone was replaced with Tab. famotidine 40mg and de-challenge of domperidone resulted in resolution of galactorrhoea within one week, hence was considered to be the culprit drug.

### DISCUSSION

Domperidone is a dopaminergic (D2) receptor antagonist with peripheral activity restricted to the upper gastro intestinal tract. It

also has several inhibitory effects on motility, including reduction of lower oesophageal sphincter and intragastric pressures. The drug is orally absorbed with high bioavailability and undergoes hepatic as well as intestinal first pass metabolism. The half-life of drug is around 7-12 hours and primarily undergoes renal excretion. Extra pyramidal syndromes as well as hyperprolactinemia have been reported rarely. Stomach cramps, diarrhoea, constipation, mastalgia, are the other adverse effects which have been observed occasionally. Unlike metoclopramide it does not cause any neurological symptoms as it does not cross blood brain barrier.<sup>2</sup> Drug induced galactorrhoea may be established by discontinuing the culprit drug for 3 days or more and reassessing the levels of prolactin. Similar situation has been discussed before including bilateral galactorrhoea with normal prolactin level.<sup>3</sup>

Galactorrhoea also can be physiological as in pregnancy, lactation, breast stimulation, sleep, stress or pathological. Pathological causes include tumours, trauma, acromegaly, hypothyroidism, chronic renal failure and liver cirrhosis. Drugs which cause galactorrhoea are antipsychotics, antidepressants, antihypertensive drugs (alpha-methyldopa, reserpine, and verapamil), prokinetics (metoclopramide and domperidone), H2 blocker, opioids, beta blockers (labetalol), protease inhibitors, and estrogen.<sup>4</sup> Prolactin Levels in normal nonpregnant women range from 1 to 20 ng per mL, depending on the laboratory and may increase to as high as 300 ng per mL during pregnancy.<sup>5</sup>

One of the first reports on domperidone induced galactorrhoea was from Great Britain in 1983.<sup>1</sup> Another was from India in 1991.<sup>4</sup> Not many reports of domperidone induced galactorrhoea in post-menopausal are available in the literature whereas same situation because of ranitidine in post-menopausal age was discussed before.<sup>6</sup> So this case report highlights an interesting observation of galactorrhoea induced by commonly used drug domperidone at therapeutic dosage.

## CONCLUSION

Domperidone is a drug used on a daily basis for the relief of stomach related issues. Galactorrhoea is an uncommon adverse effect of this drug. Therefore, to prevent patients from having needless anxiety, doctors should be aware of such uncommon side effects.

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## CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

## ETHICAL STATEMENT

Ethical approval is not applicable in this case report.

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