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## Case Report

# Domperidone-induced galactorrhea and abnormal uterine bleeding: a case report with review of clinical implications

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## ABSTRACT

Dopamine is a peripheral dopamine (D2) receptor antagonist that is widely prescribed for gastrointestinal symptoms and is often used as an over-the-counter drug. It can cause galactorrhoea through drug-induced hyperprolactinemia, an adverse effect that remains underrecognized in clinical practice. A 36-year-old multiparous woman was prescribed domperidone 10 mg twice daily for four weeks, together with pantoprazole, for gastro-oesophageal reflux disease. While responding well to treatment, she developed bilateral galactorrhoea on day 7 and abnormal uterine bleeding on day 21 of therapy. Serum prolactin was elevated (86.37 ng/ml), with reduced follicle-stimulating hormone (1.56 mIU/l), and pregnancy, thyroid dysfunction, and structural pelvic pathology were excluded. Domperidone-induced hyperprolactinaemia was diagnosed, and the drug was discontinued. Galactorrhoea resolved after 14 days and abnormal uterine bleeding after 23 days, with normalization of prolactin and follicle-stimulating hormone on repeat testing. Domperidone-induced hyperprolactinaemia should be considered in women presenting with galactorrhoea and menstrual disturbance, particularly abnormal uterine bleeding, which has not been well documented as a concurrent manifestation. Prompt recognition and drug discontinuation led to complete clinical and biochemical resolution, underscoring the need for thorough medication history-taking and patient counselling when prescribing domperidone.

**Keywords:** Domperidone, Hyperprolactinemia, Galactorrhoea, Abnormal uterine bleeding, Adverse drug reaction

## INTRODUCTION

Domperidone is widely used to treat gastrointestinal symptoms, including nausea, vomiting, and dyspeptic complaints, due to its potent prokinetic effect.<sup>1</sup> It was originally designed to act selectively on peripheral dopamine receptors in the tuberoinfundibular pathways of pituitary lactotrophs. This blockade removes the tonic dopaminergic inhibition of prolactin secretion, resulting in hyperprolactinaemia.<sup>2,3</sup>

Several case reports have documented galactorrhoea as an uncommon but clinically significant adverse effect of domperidone therapy across diverse patient groups, including postmenopausal women, non-lactating women and patients with normal baseline prolactin levels.<sup>1-6</sup>

Additionally, Deethi Yedla and Vijayan Sharmila reported the association between prolactin elevation and menstrual irregularities.<sup>1</sup> While domperidone-induced galactorrhoea has limited documentation in the medical literature, specific case reports documenting abnormal uterine bleeding as a concurrent adverse effect of domperidone therapy remain absent from the current literature.

Although domperidone side effects are highlighted in drug prescribing information, inadequate attention to medication history and treatment duration during patient assessment remains a common oversight in clinical practice. We report a case of domperidone-induced galactorrhoea accompanied by abnormal uterine bleeding, with a review of its clinical implications. Given the widespread over-the-counter use of domperidone, this

report highlights the importance of thorough treatment history taking and the need for heightened clinical awareness of its endocrine adverse effects.

## CASE REPORT

A healthy 36-year-old multiparous woman with no history of comorbidities presented with a three-week history of bilateral galactorrhoea and a seven-day history of abnormal uterine bleeding. The vaginal bleeding began six days after she missed her expected menstrual cycle and was characterised by spotting different from her usual pattern. Before the current abnormal uterine bleeding, she reported regular menstrual cycles occurring every 28-30 days, with no previous history of menstrual irregularities or endocrine disorders. She was on domperidone 10mg twice daily for four weeks combined with pantoprazole, prescribed by a general medical doctor for management of gastroesophageal reflux disease. Galactorrhoea developed on the seventh day and abnormal uterine bleeding on the twenty-first day. There was no history of use of antipsychotics, antihypertensives, antidepressants, antituberculosis, contraceptive pills, or herbal medications. She denied headaches, visual disturbances, or other neurological symptoms.

On examination, there was bilateral breast tenderness with milky non-blood-stained nipple discharge; no breast masses or signs of infection were noted. Laboratory investigations showed elevated serum prolactin levels (86.37 ng/ml) and reduced follicle-stimulating hormone levels (1.56 mIU/l). Serum beta-human chorionic gonadotropin testing was negative, excluding pregnancy, and thyroid function tests were within their normal limits. Pelvic ultrasonography showed no uterine or adnexal abnormalities. Based on the temporal relationship between domperidone use and symptom onset, along with biochemical findings and exclusion of other causes, a diagnosis of domperidone-induced hyperprolactinemia presenting with galactorrhea and abnormal uterine bleeding was made; hence, the domperidone was discontinued immediately. Galactorrhoea resolved completely after 14 days of regular follow-up, while intermenstrual bleeding resolved after 23 days of drug discontinuation. Repeated laboratory testing demonstrated normalization of serum prolactin and follicle-stimulating hormone levels.

## DISCUSSION

Galactorrhoea is the abnormal secretion of milk in women outside of pregnancy or who are not breastfeeding for one year, primarily caused by hyperprolactinemia and associated with menstrual irregularities.<sup>7</sup> Various conditions, like chest wall diseases, breast stimulation, and pathological conditions like pituitary tumours, are recognised structural and mechanical causes for galactorrhoea.<sup>8</sup> Additionally, various drugs such as estrogen-containing drugs, antihypertensives, antipsychotics, antidepressants, opioids, and antiemetics

have been reported to either block D2 receptors or decrease the synthesis of dopamine and reduce the hypothalamic inhibitory tone on the pituitary and thereby can increase prolactin secretion, which may cause galactorrhoea.<sup>9</sup>

In this case, the patient reported that she was neither pregnant nor lactating, but experienced bilateral milk secretion from the nipple, and that her menstruation has been irregular. Hyperprolactinemia should be taken into consideration, and a detailed drug and medical history, including medication use (antiemetic, antihypertensive, antipsychotic, verapamil, antidepressants, and estrogen pills), should be assessed. During the initial visit, the clinician focused only on gastric symptoms and failed to inform the patient of the adverse effects of the dopamine antagonists; thus, when galactorrhoea and menstrual irregularities occurred, the patient could not associate them with the medication she used. The diagnostic and therapeutic process of this case clearly demonstrates the typical characteristics of drug-induced galactorrhoea: a clear medical history, galactorrhoea symptoms, elevated prolactin levels, and rapid reversal of symptoms and laboratory markers after drug withdrawal. However, other pathological conditions (pituitary tumours, cirrhosis, Cushing's disease, acromegaly, and chronic renal failure) may result in hyperprolactinemia. This is consistent with the literature reports that drug-induced galactorrhoea is typically a benign and reversible process.<sup>6</sup> There is a need for clinicians to clearly state the endocrine adverse effects of domperidone to the users when prescribing domperidone, with the possibility of considering other drugs that do not affect prolactin secretion.

The important lesson for clinicians from this case is: it is important to explain to the patient the adverse effects of medications when prescribing medications with the potential to cause complications such as domperidone, antipsychotics, antidepressants, and antiemetics because adequate patient counselling enables early medical review, reduces anxiety, and patients are more likely to associate the symptoms with the medication.<sup>3</sup> Medical professionals must develop an attitude of proactive inquiry, counselling, and systemic screening for reproductive adverse effects when prescribing antiemetic medications, creating non-judgemental environment that encourages open discussion of sensitive symptoms. Pan et al emphasized that clinicians must strengthen physician-patient communication and adverse reaction monitoring during therapy.<sup>6</sup> Contrarily, Sridevi demonstrated how a lack of detailed drug history taking can result in prolonged misdiagnosis and unnecessary interventions.<sup>10</sup> Healthcare providers should routinely take a detailed drug history in patients presenting with galactorrhea and menstrual irregularities because many medications can cause hyperprolactinaemia or disrupt hormonal balance. Identifying a hormone-related cause may prevent unnecessary investigations, misdiagnosis and inappropriate treatment for endocrine or gynaecological disorders. Galactorrhoea and menstrual irregularities during follow-up visits, clearly documented, potential

endocrine side effects should be discussed during informed consent, and heightened awareness should be maintained. Medication-induced hyperprolactinemia is commonly symptomatic but often unrecognised without directed questioning. This proactive communication approach, combined with understanding that domperidone-induced symptoms are reversible, enables early recognition and appropriate management while preventing patient anxiety and healthcare burden.

## CONCLUSION

Domperidone-induced hyperprolactinemia should be considered in patients presenting with galactorrhea and menstrual irregularities. Discontinuation of the drug leads to full clinical and biochemical resolution. Clinicians should take thorough medication histories, counsel patients when prescribing domperidone for reproductive symptoms, and consider drug-induced causes before pursuing extensive investigations, given the widespread over-the-counter use of domperidone.

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