

Hyperlactation and Recurrent Postpartum Breast Abscesses Revealing an Unrecognized Prolactinoma: A Case Report and Literature Review

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How to cite this paper: Mendoua, M.F., Mbarga, M.G., Nyada, S., Ngouhou, G.M. and Mboudou, E. (2025) Hyperlactation and Recurrent Postpartum Breast Abscesses Revealing an Unrecognized Prolactinoma: A Case Report and Literature Review. *Open Journal of Obstetrics and Gynecology*, 15, 1957-1963.

<https://doi.org/10.4236/ojog.2025.1511164>

Received: October 15, 2025

Accepted: November 22, 2025

Published: November 25, 2025

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Abstract

Introduction: Prolactinoma is the most common secreting pituitary tumor. In women of childbearing age, it typically manifests as amenorrhea-galactorrhea. In the postpartum period, its association with pathological hyperlactation is rare but can potentially cause severe breast complications. We report a case of recurrent postpartum breast engorgement and abscesses, complicating hyperlactation induced by an unrecognized prolactinoma. **Clinical Observation:** The patient was a 32-year-old multiparous woman with no notable medical history, who presented 10 days after an uneventful delivery with abundant, painful lactation, associated with frequent and repeated bilateral engorgements. The condition progressed to recurrent breast abscesses, requiring several surgical drainages and repeated antibiotic treatments. Hormonal assays revealed significant hyperprolactinemia at 358 ng/mL. Pituitary MRI showed a 6.8 mm microadenoma compatible with a prolactinoma. Treatment with cabergoline led to a rapid reduction in lactation but also caused alopecia, prompting early discontinuation of treatment. **Discussion:** Hyperlactation related to a prolactinoma is an exceptional postpartum phenomenon. Excess prolactin promotes milk stasis and predisposes individuals to engorgements and subsequent iterative breast infections. Diagnosis is based on hormonal assays and pituitary imaging. Cabergoline remains the treatment of choice, enabling the regulation of lactation and prevention of complications. **Conclusion:** This case illustrates the importance of considering an underlying endocrine disorder in the face of unexplained recurrent postpartum breast ab-

scesses. Screening for hyperprolactinemia should be part of the etiological assessment in any case of persistent pathological hyperlactation after childbirth.

Keywords

Prolactinoma, Hyperlactation, Breast Abscess, Postpartum, Hyperprolactinemia, Cabergoline

1. Introduction

Prolactinoma is the most common secreting pituitary tumor, accounting for nearly 40% of pituitary adenomas [1]. It primarily manifests in women of childbearing age through hyperprolactinemia, which is responsible for amenorrhea, galactorrhea, or infertility [2] [3]. During pregnancy and the postpartum period, prolactin plays a major physiological role in lactogenesis and the maintenance of lactation [4]. However, in cases of active prolactinoma, milk production can become excessive and pathological, leading to unusual local complications. Postpartum hyperlactation (or “oversupply syndrome”) is an often underestimated condition, defined by milk production significantly exceeding the infant’s needs. Hyperlactation, defined as a daily milk production exceeding 1.5 liters (approximately >1500 mL/day) or persistent milk leakage beyond normal physiologic levels, was used as the diagnostic criterion in this study. Clinically, hyperlactation (also called *galactorrhea due to overproduction*) is generally considered when: milk output >1.5 L/day in established lactation, or engorgement and leakage causing discomfort not attributable to normal early postpartum physiology [5] [6]. It promotes milk stasis, painful engorgements, and eventually bacterial superinfection, which can progress to recurrent mastitis or breast abscesses [7] [8]. Endocrine causes of this condition remain exceptional in the literature, with only a few cases of prolactinomas leading to pathological hyperlactation having been described [9]-[11]. Cabergoline, a dopaminergic agonist, is the standard treatment for prolactinomas, allowing for rapid normalization of prolactin levels and tumor regression [12]. However, its use in the postpartum period should be cautious due to its inhibitory effect on lactation and potential long-term side effects [13] [14]. We report here a rare case of recurrent postpartum breast engorgements and abscesses complicating hyperlactation due to an unrecognized prolactinoma, to draw attention to this little-known endocrine cause of pathological hyperlactation and recurrent breast infections.

2. Case Presentation

We report the case of a 34-year-old patient, G2P2002, with no notable medical history. Her first delivery was at term and complication-free, followed by normal exclusive breastfeeding for six months. During her second pregnancy, her milk production started late, on the third day postpartum. Ten days postpartum, the

patient noted excessive milk production, significantly greater than what she experienced during her first pregnancy. This hyperlactation caused repeated breast engorgement despite attempts to manually express milk using “traditional methods,” and resulted in cracked nipples. Breastfeeding became painful and uncomfortable for both the mother (breast tension, pain) and the newborn, who was hindered by an overly abundant milk flow that made suction difficult.

During the first month of breastfeeding, the patient noticed a decrease in the infant’s appetite and the appearance of white deposits on the tongue and oral mucosa (thrush). The diagnosis of neonatal oral candidiasis was made during a pediatric consultation and treated effectively, with the complete disappearance of lesions. Three months postpartum, the patient experienced sharp pain in her right breast. Despite hot water massages, relief was temporary. The breast was tense, heavy, warm, and painful, with a sensation of electric shocks. After breastfeeding, it became engorged again in less than 20 minutes, necessitating frequent use of a breast pump for decongestion. The overproduction of milk caused the infant to choke during feedings. Repeated use of the breast pump, without significant improvement, led to chronic breast overdistension, causing intense inflammation, fever, and persistent pain. The patient sought emergency care due to purulent discharge from the right breast, despite the healing of the nipple cracks.

Upon admission, she had a fever of 39°C, distended and asymmetrical breasts, painful on palpation, with erythematous areas and purulent discharge on expression. Given the excessive milk production and recurring engorgements, a serum prolactin level was requested, revealing hyperprolactinemia at 358 ng/mL. The patient was referred for an endocrinology consultation. Pituitary MRI revealed a pituitary microadenoma (**Figure 1** & **Figure 2**).

The management involved the immediate suppression of lactation and cessation of breastfeeding. Treatment with cabergoline 0.5 mg per week for two months was initiated, along with surgical drainage of the abscesses, local care (washing with saline solution, betadine dressing twice daily). Abscess fluid cultures were performed and revealed the presence of *Staphylococcus aureus*. The antibiotic susceptibility testing showed resistance to amoxicillin-clavulanic acid and sensitivity to lincomycin and clindamycin. Treatment was initiated with lincomycin at a dosage of 500 mg every 12 hours for a duration of 10 days.

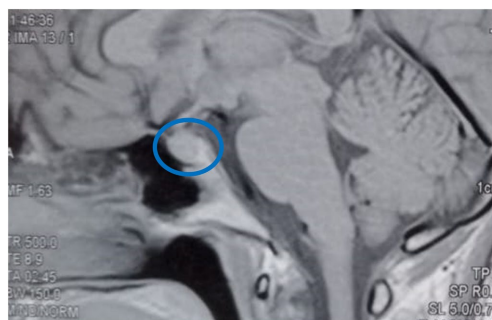


Figure 1. MRI: Sagittal section of a round hypodense formation on T2, measuring 6.8 mm along its major axis, deforming the sellar diaphragm.



Figure 2. MRI: Coronal section of a round hypodense formation on T2.

The evolution was favorable: milk secretion gradually decreased, the breast sup-puration disappeared, and the signs of infection regressed. However, the patient subsequently experienced diffuse alopecia (**Figure 3**), prompting the early discontinuation of cabergoline after one month of treatment and she was referred for a dermatological evaluation.



Figure 3. Onset of progressive alopecia.

3. Discussion

The reported case illustrates a rare form of postpartum hyperlactation secondary to a prolactinoma, complicated by iterative engorgements and breast abscesses. This presentation is exceptional: the literature reports fewer than ten similar cases described in the past twenty years [1] [2].

3.1. Hyperprolactinemia and Pathological Hyperlactation

In a normal postpartum period, prolactin reaches physiological peaks between 100 and 250 ng/mL during milk production and then gradually decreases after the sixth week [3]. In our observation, the value of 358 ng/mL was significantly higher than these thresholds, confirming the pathological nature. Authors, notably Alebna *et al.* (2022) in Ghana, have described severe hyperlactation linked to undiagnosed prolactinomas, responsible for recurrent mastitis with prolactin levels ranging from 300 to 600 ng/mL, comparable to our patient [9]. Excessive lactogenic stimulation induces overproduction of milk surpassing the infant's needs, leading to ductal stasis and chronic inflammation of the breast parenchyma; this mechanism is now well-documented in recent reviews by the Academy of Breastfeeding Medicine [7].

3.2. Breast Abscesses and Infectious Recurrences

Postpartum abscesses complicate about 3% to 5% of mastitis cases according to Ding *et al.* (2024) [8]. Recurrent forms, as observed here, are favored by milk stasis but also by repeated manipulation with breast pumps and complete breast expression, which sustain overproduction [5] [6] [8]. Several authors have reported multiple bilateral abscesses in patients with active prolactinomas, confirming the amplifying role of hyperprolactinemia on the infectious dynamics [4] [9].

3.3. Diagnostic Exploration: Importance of Assays and MRI

In our case, blood assays were crucial in identifying the endocrine origin of the disorder. The Endocrine Society recommends considering pituitary MRI once prolactin levels exceed 100 ng/mL in the absence of known stimulation. The detection of a microadenoma on MRI, as here, is typical: 80% of female prolactinomas measure <10 mm. Similar cases of prolactinomas discovered after a breast infection episode have been reported by Rojbi *et al.* (2015) and more recently by Gordon *et al.* (2024), confirming the value of endocrine assessment in recurrent abscess forms [10] [11].

3.4. Management: Balancing Endocrine Control and Breast Treatment

Therapeutic management requires a dual approach:

On the breast management side, the latest ABM 2022 recommendations suggest:

- partial breast emptying for comfort,
- ultrasound-guided drainage of abscesses,

-and prevention of overstimulation [5].

These principles were successfully applied in our case.

On the endocrine side, cabergoline remains the gold standard for prolactinoma treatment [10] [11]. Its efficacy in rapidly reducing prolactin levels and tumor size is well-documented, even in the postpartum period [13]. However, it inhibits lactation, requiring a shared decision-making process. In the cases reported by Alebna *et al.* (2022) and Gordon *et al.* (2024), cabergoline also led to the resolution of hyperlactation and the prevention of recurrent abscesses, as observed in our case [9] [11].

3.5. Side Effects and Follow-Up

The diffuse alopecia observed in our patient has been described in the literature as a rare but reversible side effect of cabergoline [14]. In the series by Yang *et al.* (2020), the incidence of cutaneous and vasomotor effects remained below 1% [15]. Early discontinuation of the treatment led to rapid improvement while maintaining controlled prolactin levels.

3.6. Strengths and Clinical Lessons

This observation is among the few reported African cases; it illustrates:

- 1) The necessity of considering an endocrine cause in cases of unexplained or recurrent hyperlactation;
- 2) The importance of systematic prolactin assays before any repeated breast surgery;
- 3) The effectiveness of cabergoline in breaking the vicious cycle of hyperlactation and infection.

4. Conclusion

This case report highlights the critical link between chronic hyperprolactinemia, even when masked by the physiological state of puerperium, and severe, recurrent breast pathology. Hyperlactation and subsequent recurrent breast abscesses in the post-partum period represent an often-recognized presentation of an underlying endocrine disorder, such as prolactinoma. The primary clinical implication of this case is that recurrent or unusually severe mastitis/abscesses during lactation should not solely be managed as a routine infectious process. Clinicians, including obstetricians, pediatricians, and general practitioners, must maintain a high index of suspicion for systemic causes when standard treatments fail or symptoms are atypical. Measuring serum prolactin levels should be considered in the workup of patients with intractable hyperlactation or recurrent breast infections.

Informed Consent

Informed consent was obtained from the patient for the publication of this case report and the associated images. However, she did not authorize the publication of images showing the breast abscesses. Anonymity was maintained in accordance

with the ethical principles of the Declaration of Helsinki. No identifying information about the patient has been disclosed in this article.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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