Medical and Health Journal
Volume 5, Issue 2, 2026, pp. 302-307
e-ISSN: 2807-3541
Open Access: https://jos.unsoed.ac.id/index.php/mhj

Management of Unilateral Hyperlactation in a Mother Exclusively Breastfeeding 7-Month-Old Infant: A Case Report

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ARTICLE INFO

Article history:
Received January 22, 2026
Revised January 25, 2026
Accepted February 2, 2026
Available online February 8, 2026

Keywords:
Hyperlactation, block feeding, laid-back positioning, pseudoephedrine

ABSTRACT

Background: Hyperlactation is a condition characterized by excessive breast milk production beyond the infant's nutritional needs, which may lead to feeding difficulties and maternal discomfort. Unilateral hyperlactation is a rare condition and may result from idiopathic mechanisms, iatrogenic factors, or a combination of both. This case report describes the mechanism and successful management of unilateral hyperlactation occurring after contralateral breast abscess surgery. Case Report: A 24-year-old lactating mother presented with excessive milk production, breast pain, and recurrent ductal obstruction in the right breast. One month prior, she had undergone surgical drainage of a left breast abscess. Her 7-month-old infant experienced breastfeeding difficulties, green frothy stools, and excessive weight gain. The condition was diagnosed as a unilateral hyperlactation of idiopathic–iatrogenic hybrid, whereby reduced stimulation of the surgically treated left breast triggered compensatory overproduction in the right breast. A comprehensive management using Academy of Breastfeeding Medicine (ABM) protocol was implemented, including laid-back breastfeeding positioning, block feeding for 14 days, and oral pseudoephedrine 60 mg twice daily. Significant clinical improvement was observed, with reduced milk production to levels appropriate for the infant's needs, resolution of maternal symptoms, and successful continuation of breastfeeding. Conclusion: Unilateral hyperlactation following breast surgery can be effectively managed using an ABM Protocol–based approach combining block feeding and pharmacological therapy, enabling successful continuation of breastfeeding.

1. INTRODUCTION

Breastfeeding is a physiological mechanism regulated through hormonal balance and the body's self-regulation. In clinical practice, attention is often more focused on managing insufficient milk supply, while the opposite condition, oversupply or hyperlactation, is frequently an overlooked yet complex clinical problem (Johnson et al., 2020). Hyperlactation occurs when milk production exceeds the infant's nutritional needs, often triggered by unphysiological breastfeeding management (Johnson et al., 2020; Smillie et al., 2005). Despite its significant clinical impact, the condition is frequently misdiagnosed as infant colic, cow's milk protein allergy, or gastroesophageal reflux (Smillie et al., 2005). Mothers with this condition often experience chronic breast fullness, an inability to nurse from both breasts in a single session, excessive leaking, and an overly forceful milk ejection reflex. These issues can lead to sore nipples, recurrent plugged ducts, and mastitis (Neifert, 2001; Wambach & Spencer, 2021; Eglash, 2014). From the infant's perspective, symptoms may include choking, gasping, fussiness, and explosive green or even blood-streaked stools, typically resulting from a foremilk-hindmilk imbalance (Neifert, 2001; Wambach & Spencer, 2021; Eglash, 2014).

Physiologically, lactation is regulated by the systemic hormone prolactin and a local autocrine mechanism involving the Feedback Inhibitor of Lactation (FIL). FIL is a whey protein that acts locally to suppress milk secretion when milk accumulates in the breast, thereby adjusting supply to the infant's demand (Kent et al., 2012; Lawrence & Lawrence, 2021). A disruption of this feedback mechanism can lead to hyperlactation. While some cases are triggered by iatrogenic

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factors, such as breast surgery or trauma (van Veldhuizen-Staas, 2007), any situation where production significantly exceeds physiological norms can drive lactation to transition into a pathological state (Kent et al., 2016).

Unilateral hyperlactation, where the oversupply is confined to only one breast, is a rare condition with limited documentation in existing literature. It often emerges as a compensatory response to reduced stimulation or drainage in the contralateral breast, such as following surgery. However, not all cases have a clear etiology, making each case report clinically valuable for enriching our collective understanding and evidence base (Kent et al., 2012).Currently, there are no specific clinical guidelines tailored exclusively for unilateral hyperlactation. Therefore, management typically relies on protocols designed for bilateral oversupply, with individualized adjustments. Primary interventions include behaviour techniques such as block feeding and positional modifications. In refractory cases, pharmacological therapies like pseudoephedrine may be considered, provided there is careful monitoring of patient safety (Johnson et al., 2020; Aljazaf et al., 2003).

This case report aims to describe the clinical presentation, pathophysiology, and management of a rare case of unilateral hyperlactation. We introduce the concept of an idiopathic–iatrogenic hybrid origin following breast abscess surgery. By sharing these findings, we aim to enhance clinical awareness and provide a practical reference for managing similar conditions to support continued breastfeeding success.

2. METHOD

Case Report

A 24-year-old primiparous mother (P1A0) presented to the lactation clinic on July 2025 with a one-month history of persistent pain, marked swelling, and constant milk leakage from her right breast. These symptoms developed following surgical drainage of a left breast abscess. During recovery, she predominantly nursed from the right breast and, despite a four-hourly feeding schedule, performed additional night breast pumping to relieve persistent fullness. This extra stimulation, intended for comfort, inadvertently exacerbated the oversupply. She remained afebrile with no systemic signs of infection. Her management was supported by her husband and extended family, which was crucial for the successful implementation of the subsequent lactation interventions.

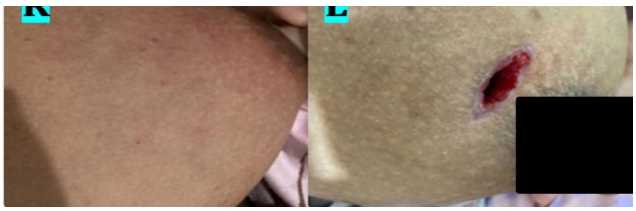

Figure 1. Swollen, blocked, and painful right breast (R) and a week after surgery of left breast (L)

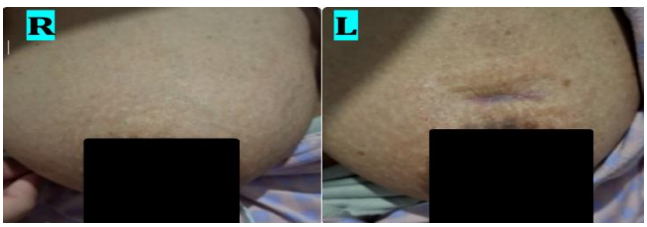

Figure 4. The right and left breast after 14 days of blocking feeding, therapeutic positional changes and pharmacological treatment (Pseudoephedrine 60 mg twice daily oral)

The infant, born full-term via caesarean section (birth weight 2,600 g), showed a rapid weight gain pattern crossing percentiles upwards, a hallmark of maternal hyperlactation. By age 7 months, the infant's weight was 7,600 g. The infant appeared healthy, active, and appropriate developmental milestones. Although exclusively breastfed with complementary foods introduced

at six months, significant feeding difficulties emerged. The infant frequently struggled, unlatched abruptly, and experienced choking episodes due to an overactive Milk Ejection Reflex (MER). While hydration was adequate (>6 wet diapers/day), stools were occasionally greenish and frothy, suggesting a foremilk-hindmilk imbalance.

Physical examination revealed a healthy, non-smoking mother with no medical comorbidities. Breast assessment showed a well-healed surgical scar on the left breast with minor milk discharge. Conversely, the right breast was markedly engorged, firm, and tender to palpation, without erythema or signs of acute mastitis. A definitive diagnosis of unilateral hyperlactation of idiopathic–iatrogenic hybrid origin was formulated, reflecting a complex disruption of local autocrine regulation triggered by the significantly reduced stimulation of the left breast following surgery. Management followed the ABM Clinical Protocol #32, utilizing a stepwise approach. Initial strategies included education on laid-back nursing positions to moderate milk flow and a structured block feeding protocol for 14 days, designed to increase local autocrine inhibition via FIL. Due to the persistence of severe symptoms and maternal distress, oral pseudoephedrine (60 mg twice daily) was introduced as adjunct therapy. Prior to administration, the patient was carefully screened for contraindications pseudoephedrine, specifically uncontrolled hypertension and cardiovascular disorders, while potential side effects such as insomnia and palpitations were closely monitored. From an ethical standpoint, this pharmacological intervention was justified to prevent breastfeeding failure.

Table 1. Common Pharmaceutical Interventions for Hyperlactation (Johnson et al., 2020)

Medication	Dosing/administration	Potential adverse reaction
Pseudoephedrine	30-60 mg/12 hours	Insomnia, Jitteriness, irritability, arrhythmia, hypertension, tachycardia,
Estrogen	Combined oral contraceptive with 20-35 µg estradiol	Pulmonary embolism, venous thromboembolism,
Cabergoline	0,25-0,5 mg every 3-5 days as needed	Nausea, headache, depressed mood, drowsiness or nervousness, dizziness
Bromocriptine	2,5 mg/24 hours for 3 days	Seizure, stroke, severe hypertension, myocardial infarction, psychosis

Figure 2. Laid-back breastfeeding positioning to decrease flow rate

The patient was monitored closely during the intervention period to assess maternal symptoms, breast comfort, and the stability of milk volume. Simultaneously, infant outcomes were monitored through feeding behaviour, stool characteristics, and weight gain. Clinical improvement was clearly defined as the resolution of breast pain and recurrent ductal obstruction, the normalization of milk supply relative to the infant's actual demand, and a marked improvement in the infant's feeding tolerance.

The clinical success of the management was evidenced by both subjective maternal reports and objective observations. The successful outcome was supported by photographic documentation, which provided an objective assessment of the reduction in breast engorgement.

By the end of the follow-up period, significant clinical recovery was observed: maternal pain had resolved, the infant no longer experienced choking episodes, and the stool consistency had normalized. These interventions effectively allowed the mother to achieve her goal of successful, long-term breastfeeding without further complications.

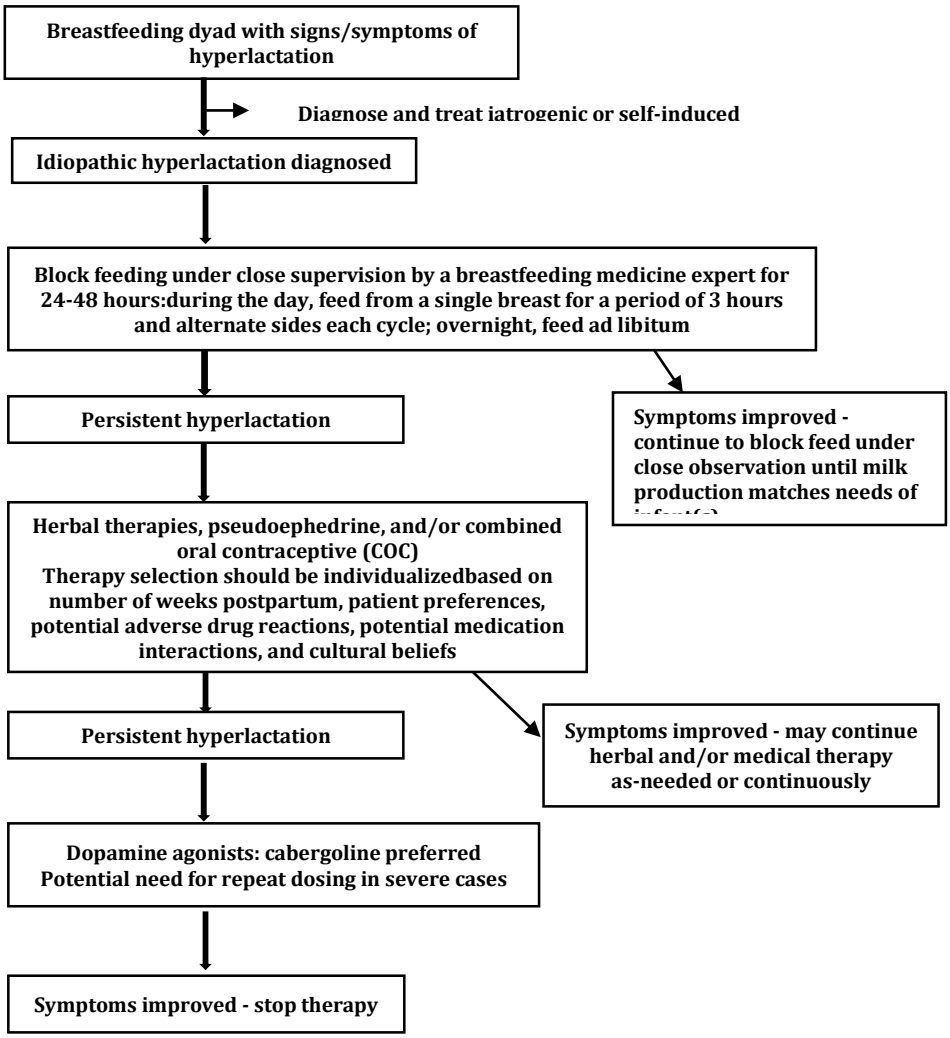

Figure 3. Algorithmic Management of Idiopathic Hyperlactation (Johnson et al., 2020)

3. DISCUSSION

This case demonstrates the successful resolution of post-operative unilateral hyperlactation within 14 days through a stepwise, physiology-based approach. Its primary clinical significance lies in confirming that trauma or surgery to one breast can trigger compensatory dysregulation in the contralateral breast, requiring specific side-targeted management strategies to preserve breastfeeding continuity. This clinical phenomenon was clearly observed in our patient, whose experience of breast engorgement led to compensatory behaviours that further disrupted the autocrine feedback loop.

The patient's persistent discomfort, characterized by chronic breast fullness and pain, was a direct consequence of disrupted autocrine regulation. Her attempts to perform additional night pumping to relieve engorgement inadvertently created a detrimental pathophysiological cycle. According to Geddes and Perrella (2019), the rate and volume of milk synthesis are primarily driven by the degree of breast emptying. Furthermore, Weaver and Hernandez (2022) detailed that serotonin acts as a sensor for mammary alveolar filling; when levels remain low due to

frequent drainage, the brake on milk protein synthesis is removed. Physiologically, excessive emptying prevents the accumulation of FIL and serotonin, both of which are essential autocrine inhibitors that downregulate milk synthesis. As emphasized by Smillie et al. (2005), this extra stimulation is unphysiological because it mimics strategies used to increase milk supply. Consequently, the continuous clearance of FIL maintains high secretory activity in the mammary epithelial cells, disabling the intrinsic regulatory mechanism and exacerbating the unilateral hyperlactation.

This complex interaction confirms that the patient's condition represents idiopathic–iatrogenic hybrid. While she likely had an underlying predisposition (idiopathic), her symptoms were exacerbated by iatrogenic factors-specifically, the mismanagement of breast emptying through excessive night pumping. As noted by Spencer (2016), this disrupts the mammary glands intrinsic regulation. In this case, reduced emptying of the left breast post-surgery led to compensatory overstimulation in the right breast. This created a maladaptive cycle where excessive drainage prevented FIL accumulation, exacerbating unilateral overproduction, as reported by van Veldhuizen-Staas (2007).

Beyond the physiological disruption, the clinical impact of this unilateral hyperlactation on breastfeeding success is substantial. A forceful milk flow, foremilk-hindmilk imbalance, and infant distress can lead to feeding aversion and diminished maternal confidence, ultimately risking the cessation of exclusive breastfeeding. Recognizing these risks, the management strategy implemented in this case followed ABM Protocol #32, emphasizing individualization and close monitoring to prevent iatrogenic hypogalactia (excessive decrease in milk supply). Initial interventions included block feeding and laid-back positioning needed to maximize autocrine inhibition. The laid-back position is effective in reducing nipple pain and trauma while improving the infant's latch. By utilizing gravity to modulate and slow down the milk flow, this position facilitates the management of breastfeeding difficulties more effectively (Wang et al., 2021).

When mechanical adjustments proved insufficient, pseudoephedrine was added at a dose of 60 mg twice daily. Although effective in reducing milk volume (Aljazaf et al., 2003), pseudoephedrine requires careful consideration due to potential side effects such as maternal insomnia, tachycardia, or hypertension. It is also contraindicated in certain cardiovascular conditions. Ethical considerations regarding medication use during lactation must always involve a clear benefit-risk assessment. More broadly, this case underscores the need for greater clinical awareness of unilateral hyperlactation following breast surgery. We recommend that post-operative monitoring for breastfeeding individuals should extend beyond surgical wound assessment to include evaluation of milk production in the contralateral breast for early detection of compensatory dysregulation.

Despite the positive clinical outcome, this report has certain limitations. As a single case report, the results are not widely generalizable. Additionally, the assessment relied primarily on maternal subjective reports rather than objective quantification of milk volume or hormonal assays. Furthermore, the 14-day follow-up period does not provide longitudinal data on long-term stability or potential recurrence. Consequently, future studies are warranted to further clarify the mechanisms of unilateral hyperlactation, particularly following surgical trauma, to refine international clinical guidelines.

4. CONCLUSION

The successful resolution within 14 days demonstrates that even complex, surgery-induced unilateral hyperlactation can be managed through the structured application of the ABM Protocol.

5. ACKNOWLEDGE

The authors sincerely thank the mother for her participation and for allowing her clinical journey to be shared, which provides valuable insights into the management of unilateral hyperlactation.

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