Infant & Toddler Feeding Case Files
嬰幼餵哺檔案
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Management of Breast Engorgement in the Early Postpartum Period

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As a part-time lactation consultant in a private hospital, my priority is to support mothers with lactation needs after delivery. Challenges I face are different from those in the public sector, my previous workplace, in terms of expectations of the clients and their infant feeding plans, hospital policies and staff support.

Case History

On a sunny day in December 2021, as usual, I walked around the nursery to look for my clients. Mrs. Chan, a first-time mother, came to me asking for help. She was worried as attempts with a hospital-grade electric pump to express breastmilk failed. Her breasts were getting harder with increasing pain. She asked if anything could be done to stop them from worsening into stony breasts (石頭胸).

Mrs. Chan had given birth to her baby boy at 38 weeks of gestation by Caesarean Section 3 days before. She visited the nursery frequently during daytime to breastfeed her baby directly since Day 2 postpartum when the drip-set and foley catheter had been taken off. She did not breastfeed her baby at night as she believed getting good sleep after delivery was important. Her baby was supplemented with formula milk during the day as well as at night.

Walking with the Client through the Early Postpartum Journey

At the first encounter, I explored with Mrs. Chan her infant feeding plan and concerns. She was most distressed by the brief suckling of her sleepy baby. Due to the COVID pandemic, she had not attended any talks on infant feeding during pregnancy. She had some vague ideas about milk coming-in, expressing breastmilk as well as breastfeeding positioning and attachment through scanning the social media. I thought extra patience would be needed to boost her knowledge, skills as well as confidence in breastfeeding.

Observing Mrs. Chan's breastfeeding confirmed her positioning and attachment difficulties. Proper ways were demonstrated but return demonstration was less than satisfactory. Her baby often slipped out from her breast. Mrs. Chan looked disappointed. With all skills, practice makes perfect. I therefore encouraged her to continue practicing, which was as important for her baby.

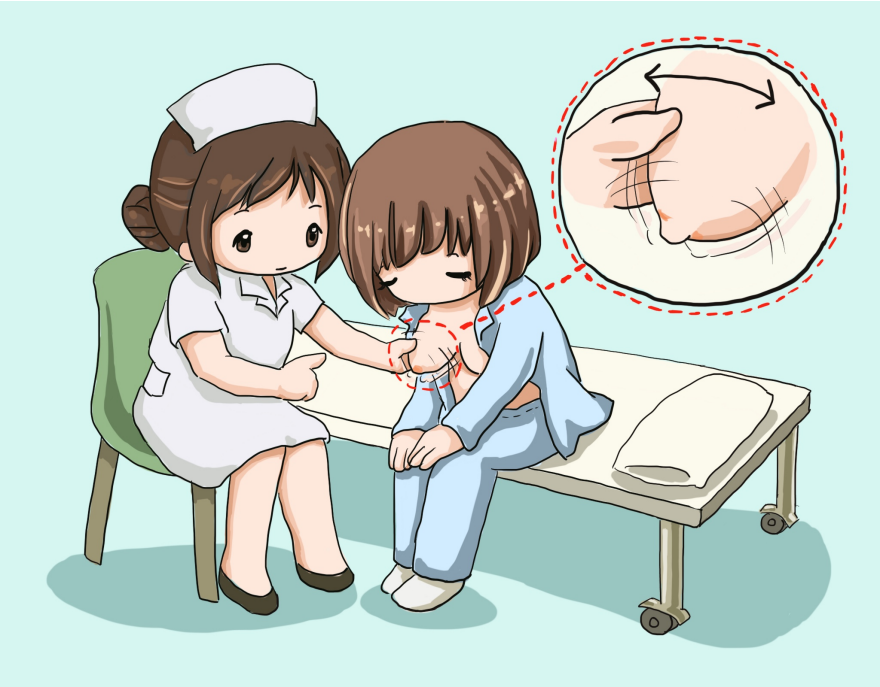
To normalize her experience, I explained that the difficulties she encountered were not at all uncommon. When the milk came-in, the breast brought together all necessary components to produce milk, including increased vascularization, fluid retention as well as increasing milk storage in the milk sacs and ducts, leading to congestion and discomfort. Such discomfort was indeed a good sign of the breast starting to work, though the extent varied among individuals. However, if such congestion did not resolve, they might progress to painful, stony hard breasts or even result in mastitis. To ease the "traffic jam", frequent milk removal would be paramount. As the baby might take time to improve his suckling, frequent hand-expression, especially in the early postpartum period, would be a good alternative measure to remove milk. Mrs. Chan showed understanding and was keen to learn hand-expression. She was excited when she hand-expressed a few drops of breastmilk successfully. She promised to hand-express every 3 hours.

Early next morning, I visited Mrs. Chan. She was upset because her breasts were more painful and tender. She could not hand-express as her breasts were too painful even with a light touch. She added that she had not expressed milk after 8 pm the night before as she was engaged with visitors. Besides, she thought the congestion could be resolved by massaging alone with which she felt soothing. When I examined her, she was afebrile but the breasts were swollen, with shiny and tight overlying skin. While showing my understanding for her difficulty in milk removal at night, I explained patiently that the engorgement was mainly caused by infrequent and ineffective milk removal. This was worsened by increased milk production due to a higher nocturnal prolactin level. I explained to her the treatment plan (table 1)[1] and how augmenting the milk ejection reflex could activate the myoepithelial cells, small muscle pumps inside the breast, to widen the milk ducts, squeeze the breastmilk from the milk sacs to the ducts and eject it. She realized the need for immediate action.

Table 1 - Treating Engorgement

A. Reduce swelling
1. Apply cold pack for 15-20 minutes between feeds **2. Take anti-inflammatory medication, if indicated**
B. Keep milk flowing
1. Augment the milk ejection reflex ● Skin-to-skin contact with the baby ● Apply warm pack up to 2 minutes just before milk removal ● Gentle breast massage before and during milk removal ● Take an analgesic, if painful
2. Frequent milk removal ● Give the baby unrestricted direct breastfeeding, at least 8-12 times in 24 hours ● Ensure the baby is well positioned and attached with effective suckling. If not, remove milk by hand-expression or electric pump

After Mrs. Chan had taken an analgesic and a cold pack had been applied for around 20 minutes, I came over again. Among many breast massage maneuvers, I found shaking the breast useful and simple to do. I asked Mrs. Chan to bend forward with the breasts suspended from her chest, allowing gravity to help the milk flow. Then, I started shaking one side of her breasts gently, making sure she could relax and without any pain. I gradually increased the force of shaking, titrating it against her level of pain. After shaking for a few minutes, milk was leaking from both breasts. I quickly let her baby attach on her breast. However, the baby came off only after a few suckles.



As the baby failed to assist in milk removal, I switched to using an electric single pump, starting with a massage mode to ensure gentle suction pressure. About every 5 minutes or when the milk flow slowed down, I shifted to pumping the other breast to match the pulsatile oxytocin release pattern[2]. In between the pumping, I continued shaking the non-pumped breast. Mrs. Chan reflected she felt soothed and relaxed during breast shaking. I further suggested her husband to work as a team and help shaking the breast. Finally, we collected 8 ml of breastmilk after 30 minutes and the engorgement improved slightly. I reassured her the yield of 8 ml of breastmilk was a good start as the congestion would gradually resolve with continuous drainage. I encouraged her to pump every 3 hours throughout the day and night and reminded her of the importance of taking an analgesic until pain free. I further advised her to do some upper limb stretching, aiming to improve the lymphatic flow and hence alleviating the oedema around the arm pit.

Before I left, I encouraged Mrs. Chan to breastfeed her baby as frequently as possible while keeping regular expression. However, she expressed her worry of not having adequate rest. After being informed of the potential risk of formula milk supplementation, she agreed to compromise by attempting direct breastfeeding and pumping 6 - 8 times a day in the subsequent 2 days, while keeping the duration per feed / pumping session within an hour. Her baby would be supplemented, if needed. Mrs. Chan became more confident after further practices and she could express 20 ml at the third session.

In the morning of Day 5 postpartum when Mrs. Chan was about to be discharged, I met her in the nursery again. She was cheerful and shared that her breasts were not engorged nor painful. She had been practicing the agreed regime of breastfeeding and expression. I complimented the couple's commitment to and joint effort in continuing breastfeeding and reminded Mrs. Chan to refocus on her baby's positioning and attachment as this would be a critical factor contributing to the success or otherwise of combating milk stasis should it happen again.

Key Messages:

1. Early and frequent milk removal is important in alleviating breast engorgement in the early postpartum period.
   儘早頻密地排出乳汁，對舒緩產後早期乳房腫脹尤為重要。
2. Hand expression is usually more effective than using a pump when breastmilk is low in supply.
   當乳汁不多時，用手擠奶一般會較奶泵有效。
3. Shaking the breast as one of the many breast massage maneuvers is simple and useful.
   在眾多按摩乳房的方法中，搖晃乳房既簡單又有效。

References:

1. Engorged breasts - avoiding and treating, by Karen Butler, Sue Upstone & mothers of La Leche League Great Britain.
2. Leake, R. D., Waters, C. B., Rubin, R. T., Buster, J. E., & Fisher, D. A. (1983). Oxytocin and prolactin responses in long-term breast-feeding. Obstetrics and gynecology, 62(5), 565-568.

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