

Infant & Toddler Feeding Case Files

嬰幼餵哺檔案

 Baby Friendly Hospital Initiative Hong Kong Association

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Strawberry Milk in the Early Postpartum Period

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Strawberry milk – my favourite drink! Many people like this pink sweet lovely drink too, especially in this hot summer. However, if it appears in the breastmilk, this is another story. I would like to share my experience in supporting a mother having early onset of strawberry milk in the postnatal ward of a private hospital.

Mrs. C, a 35-year-old first-time mother, was very keen on breastfeeding. She went through Caesarean Section because of breech presentation of her baby. On the first postpartum day, she started to hand-express her breastmilk. However, she was astonished when she found her expressed breastmilk looked rusty brown instead of golden yellow. It appeared whenever she expressed her breastmilk from either breast. Very soon, the obstetrician and surgeon came to assess her and respectively arranged some investigations. She was also recommended to stop breastfeeding while waiting for the results. She was very worried and sought help from me.

My consultation with Mrs. C found that this was her first episode of brown nipple discharge. She did not experience any pain or discomfort when expressing the breastmilk. She did not have any history of pain, recent infection, or trauma to her breasts. She had her body check including a mammogram just before this pregnancy, which was normal. She had no family history of breast cancer. Examination of the breasts was normal without any erythema, engorgement or tenderness. There were no erosions, ulcers or cracks on the nipples or areolae. My presumptive diagnosis was a relatively rare but benign condition, Rusty Pipe Syndrome.



Photo 1: Expressed breastmilk on postpartum day 1
(With permission from St. Paul's Hospital)

What is Rusty Pipe Syndrome (RPS)?

This term was first used at the La Leche League Conference in 1990 by Chele Marmet. The name was coined because of the breastmilk appearance of rusty water from old pipes. Typically, a lactating mother presents with painless, bilateral, sometimes unilateral, blood-stained breastmilk in the early postpartum period which generally resolves within a few days. It is more common in mothers expressing breastmilk than those breastfeeding directly, partly because the latter may remain unnoticed. Occurrence is in the early stage of lactogenesis i.e., in the early postpartum period and sometimes late pregnancy; and is more common in the primigravida. It is thought to be caused by increased vascularisation of the rapidly developing alveolae and ducts of the mammary tissues. As they can be easily traumatized, blood may escape into the milk secretion causing rusty brown appearance.¹

Prevalence of Rusty Pipe Syndrome

The earliest published study was by Merlob and colleagues² in 1990 where 7774 live births in Israel were studied prospectively for 2 years. Eight mothers reported atypical breast discharge, characterized by early appearance of atypical colour but normal cytology and bacteriology. **It became normal milk colour without reappearance of atypical breastmilk in 2 to 5 days which signified an important differentiating feature from other pathological breast lesions.** All had no adverse effects on the mothers and their babies. The prevalence was about 0.1%.

Management of the Mother with Rusty Pipe Syndrome

RPS is a relatively rare clinical entity. Many healthcare workers may not have encountered it before, let alone lactating mothers in the general public. Being clinicians promoting breastfeeding, we play an important role in **supporting the mother as well as liaising with other healthcare professionals.**

The commonest cause of blood in the breastmilk is a cracked nipple. A less common condition that may cause blood in the breastmilk is an intraductal papilloma – a small benign wart-like growth on the lining of a milk duct, which bleeds. Although this lesion is not malignant and usually resolves in a few days, medical evaluation is needed. **Diagnosis of RPS is usually made by a typical history, a normal physical examination, followed by complementary examinations such as breastmilk cytology and ultrasonography of the breasts, if indicated.**

Collaboration with other healthcare professionals taking care of a lactating mother is important.³

Advice to the mother from different professionals may be diverse or even contradicting. This would confuse the mother and erode her confidence in breastfeeding. RPS is a rare physiological condition which is self-limiting. Knowledge of RPS among health professionals would be very helpful to prevent causing undue anxiety for mothers and avoid unnecessary investigations. We should follow up these

mothers closely and support them to continue breastfeeding, either direct breastfeeding or expression of breastmilk. If the bleeding continues, the mother should be medically evaluated. Once the red tint of the breastmilk has faded out, we should facilitate direct breastfeeding.

Mrs. C had a typical RPS presentation together with a normal physical examination and a normal mammogram one year before. Conservative management was therefore adopted. I discussed with the surgeon who agreed to withhold the breast ultrasonography and observe for a few more days.

I counselled Mrs. C. We had a discussion on the cause and natural course of RPS. We talked about the harmless effect on the baby after taking a small amount of serosanguineous discharge as well as the possible irritation to the baby's stomach causing regurgitation or vomiting. She felt more relieved afterwards. She finally decided to continue breastmilk expression while observing the evolution of the RPS. Meanwhile, Mrs. C actively prepared for direct breastfeeding. She expressed her breastmilk every 3 hours and stored them in bottles (see Photo 1 and 2).

She was further reassured as the red-tint of the breastmilk faded day by day. At the same time, she cup-fed her baby with formula milk. She frequently held her baby skin-to-skin to build their bonding as well as to facilitate her baby's recognition of her odour so as to help the attachment. Her milk came in on day 4 postpartum when the bleeding had largely ceased. The expressed milk became golden yellow,



Photo 2: Expressed breastmilk from day 2 to day 5 postpartum
(With permission from St. Paul's Hospital)

the typical colour of colostrum. On day 5, she started direct breastfeeding. It did not take long for her baby to learn the attachment skill because of all the preparatory work done to facilitate the switch to direct breastfeeding. The rusty colour of the breastmilk did not re-appear. The breastmilk cytology result was normal.

Conclusions

Bleeding during breastfeeding is alarming. Suggesting to a mother to quit breastfeeding too early should always be avoided. As healthcare professionals, we should analyse the situation carefully by taking a thorough history, examining the breasts, and checking breastfeeding skills / expression techniques. Giving correct information as well as offering psychological support to the mother are crucial in reassuring her and enabling her to make informed choices. Engaging the mother in discussing and planning every step goes a long way towards achieving the final goal of exclusive breastfeeding.

Key Messages:

1. Rusty Pipe Syndrome (RPS) is a relatively rare and self-limiting condition in which a lactating mother produces brownish breastmilk in the early postpartum period.
鏽管症候群是指產後初期的媽媽排出啡褐色的母乳，是頗為罕見並會自愈的症狀。
2. When dealing with blood-stained breastmilk, healthcare professionals need to take a thorough history, examine the breasts and check breastfeeding and expression skills.
當母乳有染血情況時，醫護人員須詳細了解媽媽的病史，檢查乳房，並觀察餵哺和擠奶技巧。
3. Providing correct information and offering psychological as well as technical skill support to the mother are important in enabling the mother to achieve exclusive breastfeeding.
為媽媽提供正確資訊，給予心理輔導及具體的技巧支援，對於讓媽媽實現全母乳餵哺至為重要。

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Views expressed in this article are the author's and do not necessarily reflect the opinion or position of the BFHIHKA.

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