

Infant & Toddler Feeding Case Files

嬰幼餵哺檔案



Baby Friendly Hospital Initiative Hong Kong Association

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Are my breast lumps “chronic” blocked ducts?

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A healthy first time mother had given birth to her full term baby by spontaneous vaginal delivery 2 months before this consultation. She suffered from 2 episodes of mastitis at her right breast during the second postnatal month. Two breast lumps had persisted despite antibiotic treatment and daily breast massage.

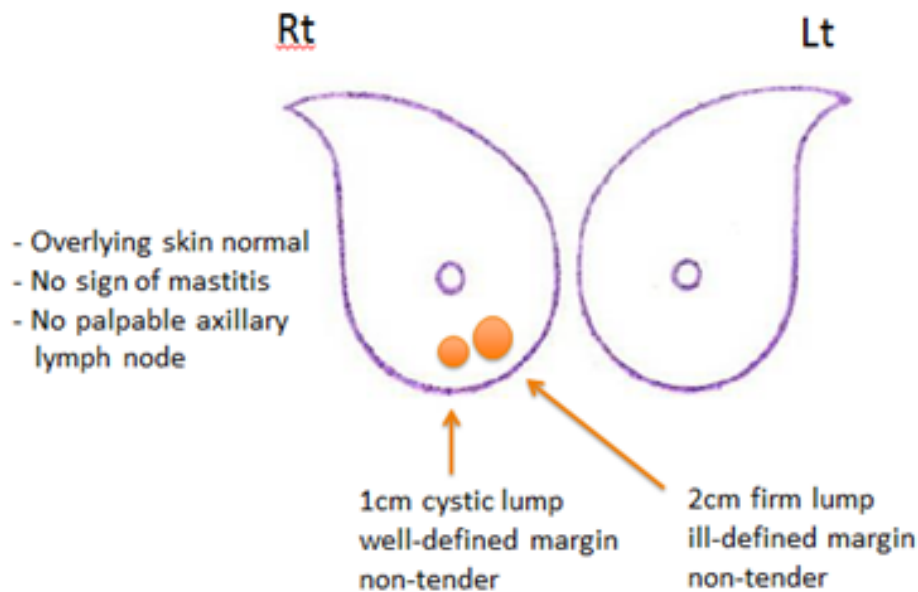


- Are the breast lumps “chronic” blocked ducts?
- Apart from breast massage, are there any other treatment options to resolve the breast lumps?
- Will persistent breast lumps develop into breast cancer?

Case History

A healthy first time mother had given birth to her full term baby by spontaneous vaginal delivery 2 months prior to this consultation. She exclusively breastfed her baby in the first month during which her baby had satisfactory weight gain. She started to breastfeed her baby less frequently in the second month in preparing herself to go back to work a few weeks later. Unfortunately, she suffered from 2 episodes of mastitis at her right breast during this period of reducing breastfeeding. Symptoms subsided after finishing the courses of antibiotics except that two small breast lumps had persisted at the site of mastitis. A nurse told her that they were blocked ducts and advised daily breast massage. However, the breast lumps did not resolve despite repeated breast massage by the nurses and herself. As she had a family history of breast cancer, she was worried that the breast lumps might become malignant.

Physical Examination Findings of the Breasts



What are the differential diagnoses of breast lumps in a lactating woman?

Breast lumps in a lactating woman may or may not be related to breastfeeding. Differential diagnoses include:¹⁻⁴

<i>Non-breastfeeding related:</i>	<i>Breastfeeding-related:</i>
<ul style="list-style-type: none">- Benign tumour, such as breast cyst, fibroadenoma, papilloma, lipoma, fibrocystic disease, etc.- Malignant breast tumour	<ul style="list-style-type: none">- Blocked ducts- Mastitis- Breast abscess- Galactocele

Blockage of milk ducts (blocked ducts or plugged ducts) is a localized area of milk stasis within the milk ducts that cause distension of mammary tissue. It presents with sudden onset of a **painful breast lump without systemic symptoms**. Sometimes, a blockage of a milk duct opening at the nipple results in the appearance of a white dot, white bleb or blister at the nipple. Diagnosis is clinical. There are 3 possible outcomes for blocked ducts: resolving within 24-48 hours, progressing to mastitis or developing into a galactocele. Transient reduction of milk production is common in acute blocked ducts.

Mastitis is a localized inflammation of the breast. The inflammation may or may not involve a bacterial infection. The usual clinical presentation of mastitis is an **erythematous, tender and hot wedge-shaped swelling** of the breast, associated with **systemic symptoms** of fever (temperature of 38.5°C or higher), chills, headache, malaise and myalgia. It is often the result of a prolonged breast engorgement or blockage of milk ducts. The diagnosis is usually made clinically. During the acute phase of mastitis, transient reduction of milk production is common.

Breast abscess is a localized collection of pus within the breast tissue, often preceded by mastitis. About 3% of women who experience breast inflammation will develop an abscess.⁵ The early symptoms and signs of a breast abscess are similar to those of mastitis but a breast abscess is usually **much more painful** and with more **intensely erythematous skin**. The fever may have subsided and fluctuation of the lump may not be obvious, depending on the timing of presentation. Confirmation of diagnosis requires ultrasound imaging. Any mastitis which does not resolve within 48-72 hours of antibiotic treatment requires ultrasound imaging to rule out breast abscess.

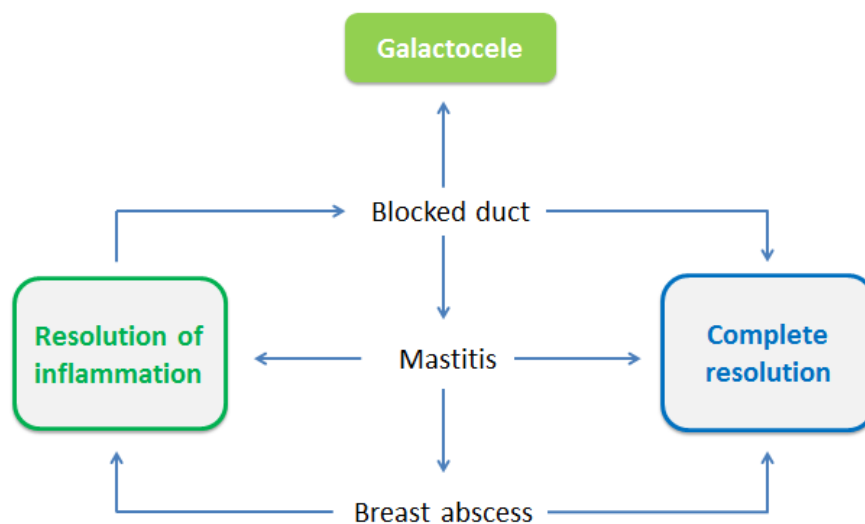
Galactoceles are **milk retention cysts**. They are lined by flattened epithelial cells and initially contain milky fluid, which becomes thicker and creamier as water is reabsorbed. The wall fibrosis surrounding the collection of milk fluid is likely a post-inflammatory response secondary to leakage of milk into the adjacent tissue, commonly as a result of blockage of a milk duct.⁶ It presents as a **non-painful or slightly tender cystic breast lump**. Clinical examination alone cannot be relied on to diagnose galactoceles. **Ultrasonography is essential** to distinguish galactoceles from other causes of breast masses.^{2,3,6} Aspiration cytology confirms the diagnosis and excludes malignancy. Galactoceles may persist for many months or reduce in size slowly. Galactoceles themselves do not affect milk production.



Photo : breast abscess
Photo source : Family Health Services, Department of Health

Relationship between blocked milk ducts, mastitis, breast abscess and galactoceles

These four conditions are very frequently encountered in the maternal & child health centres or lactation clinics. Normally, acute blocked ducts resolve within 24-48 hours with effective milk removal. If timely and effective treatment is not provided, blocked ducts may progress to mastitis and breast abscess. A galactocoele may occur as a sequel to blocked milk ducts, mastitis or abscess.¹ In the latter two conditions, the galactocoele appears as a persistent breast lump after the resolution of signs of acute inflammation. The possible sequence of events can be illustrated as below:



Non-breastfeeding related breast lumps include benign and malignant tumours which require ultrasound imaging +/- fine needle aspiration for cytology or core biopsy to confirm the diagnosis. Breast cancer during lactation is often diagnosed late as breast lumps occurring during lactation are commonly managed as breastfeeding-related conditions such as blocked ducts and mastitis. Among breastfeeding mothers and health care workers alike, there is generally a low index of suspicion that breast lumps may be malignant. Delay in seeking medical advice or providing diagnostic imaging may end up with a late stage malignancy.⁷ In sum, though breast cancer during lactation is uncommon, **prompt imaging is recommended for any persistent or unresolved breast lump**. Petok⁸ recommended prompt referral in the following situations:

- . A breast mass that shows no improvement within 72 hours of treatment
- . Plugged milk ducts or an area of milk stasis occurring repeatedly in the same location
- . Local symptoms and signs of mastitis unaccompanied by a fever that do not resolve after antibiotic treatment

Can galactoceles be managed as “chronic” blocked ducts?

Gentle breast massage during milk removal is one of the effective ways to manage blocked ducts. However, as a milk retention cyst, a **galactocoele cannot be resolved by breast massage or compression**.¹ Managing a galactocoele as “chronic” blocked ducts with repeated breast massage not only frustrates the mother because of the unproductive outcome, it also ends up with unnecessary delay in investigation or specialist referral. Besides, forceful breast massage may induce breast discomfort, which may inhibit milk ejection reflex and reduce milk production.

For this mother, the unresolved breast lumps, particularly the physical finding of the larger breast lump with ill-defined margin plus a family history of breast cancer warrant an early specialist referral and investigation.

Recommended management of galactocoele^{1-3,6}

Ultrasound-guided fine needle aspiration for cytology is diagnostic as well as therapeutic. In the case of a confirmed galactocoele, **further treatment is not required** generally. Repeated needle aspiration or surgical excision is only necessary if the mother finds the galactocoele troublesome. The mother can continue to breastfeed in the presence of the galactocoele.

Key Messages:

Although breast lumps in lactating women are commonly due to blockage of milk ducts, persistent lumps should be investigated with imaging.

雖然哺乳期婦女的乳房腫塊通常是由乳管堵塞引起，但持續的腫塊應該用影像來檢查。

Galactocoele cannot be resolved by breast massage or compression.

乳房按摩或按壓不能解決乳房囊腫(奶泡)的問題。

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