



## 2014 CMe-SPOTLIGHT SERIES

January 2014

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### Common Breastfeeding Problems, Part 3 of 3: Nipple Pain + Infection

#### NIPPLE PAIN

While nipple pain is common in the first 10 days of breastfeeding and during the infant's teething process, sore nipples should not persist beyond this period and are often disregarded as "normal" by many providers. Sore and painful nipples are NOT normal side effects of breastfeeding. Sore nipples may be due to abrasions that occur during feeding or from tight fitting clothing. These breaks in the skin pre-dispose the mother to infections of the nipple, as well as mastitis. Less common causes include psoriasis, eczema and contact dermatitis.

Always bring mother in for a nipple and latch evaluation. Improper latch or flat/inverted nipples are common causes of nipple pain without infection. Consult with an IBCLC to evaluate latch depth and consider changing position during feeding or use of a nipple shield if indicated. If pumping, have mother bring in her pump and flanges to ensure a proper fit. Remember to evaluate the infant for ankyloglossia as a potential cause of nipple pain.

For non-infected cracked nipples, breast milk combined with nipple cream, such as lanolin may promote healing thus we often encourage patients to express and apply breast milk to the healing nipple after and in-between feeds. Early intervention of skin breaks in the nipple is recommended to prevent secondary impetigo or candidiasis.

#### Vasospasm

Vasospasm of the nipple may occur due to infection or other intrinsic causes such as Raynaud's. Raynaud's phenomenon may involve the nipple and presents as a burning sensation at the end of feeding. It may last minutes and is associated with blanching of the nipple. Heat packs applied after feeding can help with pain but often vasospasm will require the traditional pharmacological therapy used in Reynaud's such as Nifedipine 5 milligrams orally thrice daily and cessation of any tobacco and caffeine products.



Figure 1. Blanching of nipple from vasospasm.

## Plugged Ducts

When milk flow becomes obstructed at the nipple pore, it may cause a superficial milk blister. As the obstruction continues, the blister will progress and lead to a plugged duct which presents as engorgement or a painful lump.

Figure 2. Plugged ducts. Note the blebs on the areola-nipple complex



## Flat or Inverted Nipples

Most women can learn how to feed even with flat or inverted nipples. An initial strategy to ensure the baby can latch and feed whilst evaluating the problem is the Hoffman technique in which the areola is compressed from contralateral sides to elongate the nipple [1].

Other treatments include use of a breast shell to help draw out the nipple. A nipple shield can also be used but we recommend judicious use as it is often over prescribed and may lead to cracked nipples. Using a breast pump for a few seconds before feeding will make the nipple more erect and may help with the latch.

## BREAST INFECTIONS

If any infectious cause is identified, make sure mother thoroughly cleans and sterilizes all bottles, nipples, pacifiers, and pumping supplies by boiling them for 20 minutes daily. Wash all clothing thoroughly in hot water to prevent re-infection.

## Impetigo

Most commonly from *Staphylococcus aureus* and Group A beta-hemolytic *Streptococcus*, bacterial infections present as sore, cracked, honey crusted and erythematous nipples. Start the patient on routine nipple hygiene with soap and water to remove any crusting. The patient can exfoliate with a wash cloth after showers and the provider can try removing crusting by lightly scraping with an 18 gauge needle. If superficial, topical 2% Mupirocin may be adequate but if extensive or not responding to topical treatment within 48 hours, begin systemic therapy as well.



Figure 3. Impetigo of the nipple. Note the yellow crust and erythematous nipple.

| Medication           | Directions            | Duration      |
|----------------------|-----------------------|---------------|
| Topical Mupirocin 2% | Apply TID after feeds | Until cleared |
| Oral Dicloxacillin   | 500 mg every 6 hours  | 10 Days       |
| Oral Cephalexin      |                       |               |
| Oral Erythromycin    |                       |               |

Table 1. Pharmacological treatment of impetigo.

## Candidiasis

It may be difficult to differentiate candidiasis versus impetigo of the nipple. Candidiasis will also present as an exquisitely tender pruritic nipple but has minimal objective findings on exam other than superficial erythema on the nipple and areola. A dry dermatitis may be observed as well.

Once identified, the infant must also be treated to fully eradicate the infection. Vice versa holds true – if an infant is diagnosed with oral candidiasis, the mother should be prophylactically treated even if no symptoms are present in the mother. Be sure to identify and treat other potential sources of candida such as vulvovaginal or infant diaper candidiasis. Have mother keep the nipple clean and dry.



Figure 4. Candidiasis of the nipple. Note the dry dermatitis and erythema.

| Treatment                               | Dosing  |
|---|---|
| <b>Topical Clotrimazole</b>             | Apply after each feed. Continue for 10-14 days after symptoms resolve.                                      |
| <b>Topical Miconazole</b>               |   |
| <b>Topical Ketoconazole</b>             |   |
| <b>Oral Fluconazole</b>                 | 400 mg loading dose followed by 200mg daily for 14-21 days.   |
| <b>Vinegar Solution</b>                 | Mix 1 teaspoon of white vinegar in 1 cup of water. Apply after each nursing to nipple and allow to air dry. |
| <b>Gentian Violet (.25-5% solution)</b> | Apply to nipples twice daily for 3 days   |

Table 2. Management of maternal candidiasis. For recurrent or refractory cases, oral therapy may be required.

| Treatment                   | Dosing   |
|-----------------------------|--|
| <b>Nystatin Solution</b>    | Continue until 48 hours after symptoms resolve |
| <b>Fluconazole Solution</b> |  |

Table 3. Management of infant candidiasis.

## Mastitis

Mastitis (inflammation of the breast) can be due to numerous reasons including infection or obstruction and is most common in the first 6 months of breast feeding. Cracked nipples, missed feedings, oversupply of milk, tight fitting clothing, maternal stress/fatigue, and malnutrition are common causes. Most often it affects one breast and presents as a red, tender lump or area of breast tissue along with fever, lumpy or stringy like milk, and malaise. In severe cases purulent drainage from the involved tissue may be evident.

A common cause of both mastitis and plugged ducts is inadequate emptying of the breast. Treatment requires routine emptying of the breast every 2 hours. Before nursing apply warm compresses to help mobilize and dissolve

clotted milk. Advise mothers to avoid tight fitting clothing. Consider cold compresses such as the cabbage compress in between feedings to help reduce pain and inflammation. Prescribe appropriate analgesia as needed including NSAIDs to reduce inflammation. Have mother try different feeding positions.

If mastitis is present more than 24 hours and conservative measures have failed or mother has a fever or is systemically ill, treat with antibiotics to cover *Staphylococcus aureus*, *Streptococcus*, or *Escherichia coli*, and methicillin-resistant *Staphylococcus aureus* if appropriate for a 10-14 day course (Table XX). In severe cases of mastitis or concern for Systemic Inflammatory Response Syndrome or Sepsis, admit for inpatient management and consider surgical consult for incision and drainage. If not responding to antibiotics, remember to consider inflammatory breast cancer in your differential. Perform breast milk culture for refractory or recurrent cases. Continue to nurse unless an abscess is drained.

| Treatment                               | Dosing  | Notes   |
|---|---|---|
| <b>Oral Dicloxacillin</b>               | 500 mg every 6 hours  |   |
| <b>Oral Cephalexin</b>                  | 500 mg every 6 hours  |   |
| <b>Oral Clindamycin</b>                 | 450mg every 6 hours   |   |
| <b>MRSA treatment Oral: Clindamycin</b> | 450 mg every 6 hours  | Other oral MRSA treatment: Trimethoprim/Sulfamethoxazole  |
| <b>IV Nafcillin</b>                     | 2 grams IV every 4 hours  |   |
| <b>IV Cefazolin</b>                     | 1 gram IV every 8 hours   |   |
| <b>MRSA treatment IV: Vancomycin</b>    | 1-2 grams IV every 12 hours   | Other IV MRSA treatment: Linezolid, Tigecycline, Daptomycin   |
| <b>Therapeutic Ultrasound</b>           | 2 watts/cm <sup>2</sup> at 1-3 MHz for 5 minutes daily x 2 days [2] | Increases circulation. Use as primary treatment for plugged ducts, engorgement, and mild mastitis. For more significant infectious mastitis, use in combination with antibiotics. |

Table 4: Antibiotics for infectious mastitis. Typical treatment course is 7-14 days.

## CONCLUSION OF SERIES

Primary care providers are the first line in breastfeeding – from prenatal nipple evaluations to ensure latch success to identifying and treating complications early. Understanding and being able to manage complications as well as having a team care approach involving an IBCLC and support group such as La Leche League [3] are crucial in ensuring breastfeeding success.

## REFERENCES

1. LLLI, [Online]. Available: <http://www.llli.org/faq/flat.html>. [Accessed 25 12 2013].
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3. La Leche League, [Online]. Available: LLLI.org. [Accessed 25 12 2013].
4. Photos courtesy of Jennifer Ritchie, IBCLC. <http://www.milkalicious.com>