



## Q/What's the best way to relieve mastitis in breastfeeding mothers?

### EVIDENCE-BASED ANSWER

**A** | **FREQUENT BREAST EMPTYING** helps both infectious and noninfectious mastitis (strength of recommendation [SOR]: **A**, 1 randomized controlled trial [RCT]).

Antibiotics may be useful for women with positive milk cultures (SOR: **A**, 2 RCTs), but their utility for treating undif-

ferentiated mastitis is unknown (SOR: **A**, 1 systematic review).

Consider prescribing antibiotics for women whose mastitis symptoms don't improve after 12 to 24 hours of frequent breast emptying (SOR: **C**, consensus guideline).

### Evidence summary

An RCT compared breast emptying every 6 hours with no treatment for inflammatory breast symptoms in 213 women with 339 inflamed breasts.<sup>1</sup> Investigators classified symptoms into 3 groups based on milk leukocyte counts (MLC) and cultures from expressed milk (MC): infectious mastitis (MLC >10<sup>6</sup>/mL, MC >10<sup>3</sup> bacteria/mL; n=165 breasts), noninfectious mastitis (MLC >10<sup>6</sup>/mL, MC <10<sup>3</sup> bacteria/mL; n=48 breasts), and milk stasis, or inspissated milk (MLC <10<sup>6</sup>/mL, MC <10<sup>3</sup> bacteria/mL; n=126 breasts).

Breast emptying reduced the mean duration of symptoms in women with infectious mastitis (4.2 vs 6.7 days with no treatment; *P*<.001) and noninfectious mastitis (3.2 vs 7.9 days with no treatment; *P*<.001). However, it didn't shorten mean symptom duration in women with milk stasis (2.1 vs 2.3 days with no treatment; *P* not significant).<sup>1</sup>

Moreover, breast emptying allowed more women with infectious and noninfectious mastitis to return to normal lactation within 2 weeks. Rates of return to lactation for women with infectious mastitis were 51% with breast emptying compared with 15%

with no treatment (number needed to treat [NNT]=2; 95% confidence interval [CI], 2-5). For women with noninfectious mastitis, the rates of return to lactation within 2 weeks were 96% with breast emptying compared with 21% with no treatment (NNT=1; 95% CI, 1-2).<sup>1</sup>

### Antibiotics plus breast emptying work better than emptying alone

The investigators further randomized a subgroup of women (165 involved breasts) with culture-positive mastitis into 3 treatment groups, each with 55 women: culture-directed antibiotics for 6 days plus breast emptying every 6 hours, breast emptying alone, and no treatment.

Antibiotics improved the rate of return to normal lactation over breast emptying alone (96% vs 51% normal lactation at 2 weeks; NNT=3; 95% CI, 2-3) and no treatment (96% vs 15% normal lactation at 2 weeks, NNT=1; 95% CI, 1-2). They also reduced the mean duration of symptoms (2.1 days with antibiotics vs 4.2 days with breast emptying alone and 6.7 days with no treatment; *P*<.001 for each).<sup>1</sup>

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➤ **Antibiotics may help women with positive milk cultures; their efficacy for treating undifferentiated mastitis is unknown.**

## Amoxicillin and cephadrine produce similar results

A smaller RCT (N=25) compared oral amoxicillin with oral cephadrine for women with a clinical diagnosis of mastitis based on oral temperature above 37.6°C, breast tenderness, and erythema.<sup>2</sup> Investigators prescribed 7 days of amoxicillin (500 mg every 8 h; n=13) or cephadrine (500 mg every 6 h; n=12) and instructed women to continue breastfeeding and apply warm, moist compresses to the involved breast every 4 to 6 hours. They also performed milk cultures on all women. The cultures grew penicillin-resistant staphylococci (15 women; 7 treated with amoxicillin and 8 with cephadrine) and penicillin-sensitive streptococci (6 women).

After 7 days, the investigators found no significant differences in fever, breast tenderness, or erythema between the 2 groups (relative risk=0.85; 95% CI, 0.65-1.12, favoring cephadrine).<sup>2,3</sup> Two treatment failures occurred in the amoxicillin-treated group, both in women who had positive cultures for *Staphylococcus aureus*.<sup>2</sup>

A Cochrane systematic review of the

2 RCTs described here concluded that insufficient evidence exists to support or refute antibiotic therapy for treating lactational mastitis.<sup>3</sup>

## Recommendations

The World Health Organization (WHO) recommends continued breastfeeding and improving breastfeeding technique for women with mastitis. WHO advises ensuring proper infant attachment, frequent breastfeeding, and expression of breast milk by hand or pump, if necessary. They urge clinicians to promote continued breastfeeding by providing encouragement and reassurance about its value.<sup>4</sup>

The Academy of Breastfeeding Medicine (ABM) recommends anti-inflammatory medications for analgesia to allow women with mastitis to continue to breastfeed. Hot packs or a hot shower also may alleviate symptoms.<sup>5</sup>

WHO and ABM both recommend prescribing a 14-day course of antibiotics effective against *S aureus* for women whose symptoms don't improve after breast emptying for 12 to 24 hours.<sup>4,5</sup>

JFP

## References

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