

Breast hypoplasia and breastfeeding: A case history



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Abstract

Hypoplasia, or glandular insufficiency, of the breasts is an infrequent cause of breastfeeding failure or infant failure to thrive. Early evaluation of the breasts or early identification of infant indicators can enable mothers to breastfeed while providing appropriate supplementation to facilitate satisfactory hydration and growth. A case report is presented of a highly motivated mother with minimal breast tissue who was able to soothe four of her infants at her breasts, supplying some breastmilk, while providing the bulk of their nutritional requirements by other means. At the time of writing, she is tandem breastfeeding as well as providing artificial milk by bottle.

Keywords: breastfeeding, breast hypoplasia, supplemental nursing systems, Australia, tandem breastfeeding

Breastfeeding Review 2005; 13(2): 13-16

INTRODUCTION

Hypoplasia of the breast, although uncommon, results in reduced milk production and, if unrecognised, undesirable sequelae in the infant such as poor weight gain and failure to thrive. Antenatal examination of the breasts will facilitate identification of women exhibiting signs of possible hypoplasia. Maternal factors indicative of hypoplasia outlined by Huggins et al (2000) include:

- tubular breasts that have a narrow base on the chest wall and are pendant
- widely-spaced breasts (an intramammary gap of 3.75 cm or more)
- an overdeveloped areola relative to actual breast tissue
- little or limited development of the inner lower quadrant and possibly other quadrants
- little or no breast growth during pregnancy.

There may be a marked asymmetry between breasts. However, some women have breasts that appear normal on a cursory inspection, but are found to be hypoplastic when examined closely after the baby fails to thrive or is admitted to hospital following a crisis. Some women with glandular insufficiency may never feel fullness, while others do (Huggins et al 2000).

The four categories of breast hypoplasia are breasts that are rounded but wide-spaced (type 1), have hypoplasia of the lower inner quadrant (type 2), have hypoplasia of both lower quadrants (type 3), or have minimal breast base (type 4) (Huggins, Petok & Mireles 2000). The following case history describes how a mother with breast hypoplasia partly breastfed several children for extended periods.

CASE HISTORY

Previous infant-feeding history

A 35-year-old multiparous mother presented during pregnancy, with a history of minimal milk production with previous babies. Nevertheless, two of her previous babies had been willing to be suckled at the breast for prolonged periods for about four years, despite being primarily artificially fed. This happened despite health professionals telling her that there was no milk present. She wanted more information before giving birth again as she had always wanted to breastfeed.

After the birth of her first baby, the mother had attempted to breastfeed on demand and was well informed about breastfeeding. Unfortunately, her glandular insufficiency was unrecognised and she was discharged early. After a home visit by a midwife on day three, the baby was admitted to hospital to undergo phototherapy for jaundice. The staff fed the baby artificial baby milk (ABM) by bottle while the mother pumped her breasts unsuccessfully. The baby was discharged from hospital after passing a sufficient volume of urine in a 24-hour period. Thereafter, the baby was artificially fed by bottle, but was willing to continue being suckled at the breast for four years.

After the birth of her second baby, the mother was prescribed metoclopramide tablets to support her lactation, but this medication was ineffective. Metoclopramide promotes breastmilk production by

raising prolactin levels, but is ineffective in a very small number of women (Hale 2004). At two weeks of age, this baby had not regained its birth weight. A midwife set up a feeding tube attached to a syringe, so that the intake could be supplemented while the baby was at the breast. The amount of ABM was increased so that it was sufficient to promote growth and a bottle was used. At five weeks of age, the baby began projectile vomiting and was hospitalised for one week. Pyloric stenosis was diagnosed and the baby underwent surgery. After returning home, a supplemental feeding system was used to provide ABM by tube while breastfeeding. Health professionals expressed various opinions on the cause of the low supply, generally attributing it to baby-related factors. Despite the underlying lactation problem and the unrelated setbacks, this infant was also willing to comfort itself at the breast for about four years.



Breastmilk supplementer system. Note: The model does not have breast hypoplasia.

On the third day after the birth of her third baby, when her milk had not come in, the mother was told emphatically by health care staff who examined her breasts that she was unable to breastfeed. A long, straight teat was recommended in the belief that it would improve her baby's suckle, but this strategy was so ineffective that by three weeks she was unable to get her baby to accept the breast at all. The mother again tried a supplemental feeding system and every ruse she had tried previously, but could not persuade this baby to breastfeed again — the only one of her children to refuse to accept the breast despite the minimal supply. During these experiences she accepted the opinion she was given, that her babies received only comfort at her breast, but no milk.

Course of breastfeeding

When this mother consulted the author while pregnant with her fourth child, examination revealed breast hypoplasia with extremely wide spacing of her breasts. Her breasts were proportional and were not tubular or pendant but there was a large intramammary gap of about 12 cm. There was very little visible glandular tissue outside of the areolae, though the upper outer quadrant of the right breast had slightly more tissue. The mother recognised the need to use ABM to prevent dehydration and hunger and to enable the infant's growth. She sought encouragement to set and meet realistic breastfeeding goals. These were to encourage her new baby to

accept the breast, even though it was likely that most of the baby's nutritional requirements would need to come from other sources. Graduating to exclusive breastfeeding would not be an option.

I postulated that, if two previous babies had suckled at the breast until about four years of age, they must have been receiving some milk, however little. My clinical judgment was to support this mother's desire to breastfeed, with appropriate supplementation. She was well versed in how to latch a baby at breast. We discussed methods of giving the necessary ABM, which would provide most of her baby's nutritional requirements. She used a supplemental feeding system for nearly six-and-a-half months to deliver ABM to her baby by tube while at the breast, before its use became impossible. Thereafter she gave her baby ABM by bottle.

Even though this cannot be used as a reliable measure of breastmilk intake, I advocated that at nappy changes the mother observe her baby's stools for traces of breastmilk, something that had never been suggested to her before. The rationale for this suggestion was that I had found it encouraging for adoptive mothers, and that I believed it was an appropriate suggestion for this mother for whom even a slight change in the stools would be gratifying. As she focused on her baby's growth and needs, rather than on the appearance of the stools, lack of such stools would not be a source of discouragement. When her baby was between two and four months old, she reported up to one-third of this baby's stools showed evidence of breastmilk ingestion. Some stools were, predictably, classic artificial-feeding stools, some were combination stools, and a few were mostly breastmilk stools in appearance. The mother derived emotional benefit from seeing visible evidence of breastmilk production in her baby's stools.

The infant thrived as her mother provided sufficient ABM for her to grow satisfactorily. After use of the supplementer was discontinued ABM was given by bottle. The mother had stopped breastfeeding after approximately two years as she was pregnant and had tender breasts.

Subsequent breastfeeding history

The next child also breastfed with the aid of a supplementary feeding system. Feeding with the supplementer in place seemed to work best if mother and baby were lying down. Eventually, this baby too began to prefer to receive ABM by bottle, rather than by tube. At about four months, although ABM was provided by bottle during the day, breastfeeding was used almost exclusively at night. The right breast felt full at the end of the day and it seemed 'well emptied' by morning. The baby also accepted the breast at other times. The previous child has occasionally asked for the breast since the birth of the new baby and some nights the older child has breastfed to sleep. At the time of writing, the mother is still tandem breastfeeding her toddler along with her seven-month-old baby, a situation that gives her great emotional satisfaction. Most of the baby's nutritional requirements continue to be in the form of ABM.

DISCUSSION

In addition to the maternal indicators of infant hypoplasia described earlier there are also several infant indicators of this condition. These include failure to regain birth weight in less than three weeks, poor

weight gain or failure to thrive, continuous weight loss after ten days and signs of dehydration. Infant factors which may be indicative of breast hypoplasia can also be indicative of other causes of insufficient milk supply such as poor latch, infrequent breastfeeding, or infant defects such as oral abnormalities or unidentified cardiac problems. When several infant or maternal indicators are noticed, the mother's breasts should be examined in case hypoplasia has been previously missed. In extreme cases where hypoplasia goes unrecognised and an inexperienced mother is discharged from hospital without appropriate information about what is normal and abnormal in newborns, the infant is at risk from dehydration and emergency readmission.

The clinical questions to be considered in individual cases are: Should this mother be encouraged to breastfeed at all? Would it be easier to feed artificially? Can the baby be fed at the breast, with appropriate supplementation? Should this mother be encouraged to aim eventually to breastfeed exclusively?

A number of well-conducted studies show that babies who have never been breastfed are at risk of developing various health problems when compared to those who are exclusively breastfed for the first few months of life (Oddy et al 1999; Oddy 2001; Kramer et al 2001). Babies who are partly breastfed receive some protection, putting them ahead of the exclusively artificially fed. While a mother with insufficient breast tissue will need to supplement with ABM, it should be feasible for her to continue also to provide breastmilk for her child. Measures to maximise the breastmilk supply should be discussed on an individual basis. Although there is merit in the initial use of a supplementary feeding system that allows the baby to receive the ABM at breast while stimulating the mother's lactation, the choice of how to supplement the baby will also be individual. The experience of providing all the baby's nutritional requirements while at the breast may be meaningful to the mother.

The mother whose case is reported here derived emotional satisfaction from seeing her babies at the breast, from being able to breastfeed in public like other mothers in her community and from her babies' willingness to use the breast as comfort well beyond early infancy. Her babies received some breastmilk, a good deal more skin-to-skin contact than would have been possible with exclusive bottle-feeding and were able to be comforted at the breast. This mother was highly motivated, was reluctant to opt for exclusive artificial feeding and was willing to take the extra time to offer the breast along with preparing ABM and the related equipment. Both the degree of hypoplasia and her past history indicated that exclusive breastfeeding would never be possible and she was realistic about what could be achieved.

IMPLICATIONS FOR PRACTICE

Although the specifics of this single case may not be generalised to other women presenting with breast hypoplasia, this report demonstrates what has been possible for one motivated mother. It is hoped that this report may assist health professionals in determining appropriate information and support to meet the differing and individual needs of clients who have inadequate lactation owing to

breast hypoplasia and who are motivated to continue breastfeeding. Babies of breastfeeding mothers with breast hypoplasia need monitoring because of the risk of underfeeding. They may always need ABM (but not necessarily at every feed) and this will depend on the amount of functioning breast tissue that is present. Where the hypoplasia is less extreme than in the case presented here, the maternal supply may be built up over about a month to 50–100% of needs (Huggins, Petok & Mireles 2000). Realistic encouragement, based on a careful clinical appraisal and follow-up, can enable the mother to achieve a breastfeeding relationship and ensure that the infant's breastmilk intake is maximised without risking dehydration.

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Statement of Mutual Support from the Australian Breastfeeding Association for the International Board of Lactation Consultant Examiners

The Australian Breastfeeding Association (ABA) (formerly the Nursing Mothers' Association of Australia) has been involved from the inception of the International Board of Lactation Consultant Examiners (IBLCE) because it recognised that some of the problems mothers experienced were beyond the scope of practice of the ABA counsellor. This credential was seen as providing a career option and professional recognition for those ABA counsellors who wanted to specialise in clinical lactation, ensuring their ongoing education as they built evidenced-based practice.

Similarly, the IBLCE recognises the value of the ABA counsellors in providing the mother-to-mother support essential to widespread breastfeeding success in a contemporary setting. The IBLCE recognises that mother-to-mother support is the foundation on which rests the community based public health programs in

educating the public about the value of breastfeeding, advocating for breastfeeding babies, helping mothers and their families understand the normal course of breastfeeding and thereby empowering women to breastfeed.

The IBLCE recognises that the role of ABA counsellors is different from that of the IBCLC. The ABA counsellor provides ongoing support and information that is necessary to improve lactation outcomes. IBCLCs provide another layer of support and information, working cooperatively as members of the health care team by offering skilled crisis intervention and non-medical problem solving which the ABA counsellor may not wish to provide. The roles of the two designations are not duplicative but rather integrative and complementary, and mutual referrals provide optimum benefit to the mother-baby dyad.