

Editorial

Breastmilk: It's Not Just for Breakfast Anymore!

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As perinatal medical professionals, we are rediscovering what nature (and mothers) has known all along — breastmilk is best! We have always agreed that breastmilk and breastfeeding are literally lifesaving for third-world children. We are now admitting that even in our safe, sanitary, scientific, developed world, breastfeeding is also the normal way to feed babies and has significant advantages for baby, mother, family, and community.^{1,2}

But what about preterm infants, especially the very low birth weight, who did not survive in the past, and would not survive without our technology? Is human milk best for them also? In the not too distant past, all infants, including preterm infants, received human milk. Then came the search for an improved alternative with intense commercial promotion. In our hubris, we have assumed we can do better than “mother nature.” Research is now suggesting that human milk may be even *more* important for compromised and preterm infants than for full-term infants.³⁻⁵ Despite its “nutritional inadequacies” for preterm infants, human milk is associated with improved neurodevelopment, less necrotizing enterocolitis, less sepsis, and a shorter hospital stay.³

Hylander et al.,⁶ in a retrospective, observational, cohort study in this issue, add significant information to the “why” of breastmilk for very-low-birth-weight infants. After controlling for confounding predictors of retinopathy of prematurity, human milk feeding independently correlated with a significantly reduced odds of retinopathy of prematurity. Although the numbers were too small to reach statistical significance, results were also suggestive of a dose-response relationship, with as little as 20% of total feedings as human milk appearing protective. While research into which human milk factor(s) is responsible for this protective effect may be of value, simply adding a “factor” to artificial milk is unlikely to achieve the same effect. Human milk is a multifactorial, living substance with complex interactions that we are just beginning to unravel. Perhaps the simplest, most cost-effective, and elegant solution is not to genetically engineer bacteria or cows to produce human proteins, but to use the original product!

Marinelli et al.,⁷ in a prospective, randomized cross-over study of preterm infants, also in this issue, discuss the “how”

of providing milk to preterm infants. As the oro-motor skills used to suckle at breast and suck at a bottle differ,⁸ and the introduction of a bottle is associated with shorter durations of breastfeeding,⁹ there is concern that preterm infants may have difficulty breastfeeding if bottles are used. In most of the world, cups are used as the primary method of supplementing term and preterm infants, but US neonatologists gasp in horror, fearing “aspiration.” This study confirms that cup feedings are at least as safe, if not safer, than bottle feedings in this preterm population. During cup feedings, the infants were more physiologically stable, but took less volume, over more time, than with bottle feedings. There is much work to be done to ascertain the safest, most efficient, and yet breastfeeding-supportive method of transitioning preterm infants from gavage to full breastfeeding.

Consensus is building that breastmilk is necessary for preterm infants, although it may not be sufficient for our tiniest charges. Breastfeeding is also more than just nutrition; it is warmth, nurturance, and parenting — an opportunity for the mother of a NICU infant to “lay claim” to her infant. Our NICUs should support mothers seeking to provide breastmilk and breastfeed their infants, and research into the “hows” and “whys” should continue.

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