

## Breast milk jaundice—early and late

Neonatal physiologic jaundice usually reaches the maximum level on the third or fourth day of life in most full-term infants, and resolves by the seventh to tenth day of life.<sup>1</sup> Breast-fed infants tend to have higher levels of serum bilirubin than formula-fed infants,<sup>2</sup> which coincides with the greater weight loss experienced by breast-fed infants during this time as demonstrated by Dr. Butler's paper in this issue. It appears that this early breast-milk jaundice is an accentuated physiologic jaundice,<sup>3,4</sup> possibly secondary to a greater degree of dehydration. There are no data to suggest that this hyperbilirubinemia is dangerous or harmful to an otherwise healthy neonate, and no treatment is necessary as long as the indirect serum bilirubin is less than 20 mg/dl. The common practices of discontinuing breast-feeding, supplemental formula feedings, or phototherapy for these mildly to moderately jaundiced, healthy, full-term infants probably do more harm than good by interfering with the establishment of successful breast-feeding, prolonging hospitalization, and separating infants from their mothers.

This exaggerated physiologic jaundice of the breast-fed infant is a distinct and separate entity from the true breast-milk jaundice that occurs in less than 2% of nursing infants as a result of a maternal breast milk factor.<sup>1,5</sup> These cases are thought to be due to an inhibitor of glucuronyl transferase or a promoter of enterohepatic bilirubin resorption present in breast milk. True breast milk jaundice tends to occur later (after the first week of life) and may persist for weeks.<sup>5</sup> Again, the jaundice is benign, although occasionally the serum bilirubin reaches levels that might otherwise be considered dangerous. Although

cessation of breast feeding for 48 to 72 hours will result in a significant decrease in the indirect bilirubin (more than 2 mg/dl), this therapeutic trial may not be necessary if laboratory tests indicate that there is no hepatic or hemolytic disease.

Just as indirect bilirubin levels as low as 10 mg/dl or less may be dangerous to the hypoxic, septic, or otherwise stressed very low birth weight or premature infant, indirect hyperbilirubinemia of 20 mg/dl or more may not be dangerous to the otherwise healthy, full-term breast-fed infant.<sup>1,3</sup>

The paper by Dr. Butler, besides its contribution to a better understanding of the accentuated physiologic jaundice in breast-fed infants and the relationship to weight loss, demonstrates that pediatricians in private practice can perform high-quality, sophisticated research. This article can be a stimulus to physicians in private practice to study and attempt to answer questions best addressed by them.

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## References

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