

The starved but contented breast-fed baby

Sir,
The interesting paper by Evans and Davies (*Archives*, 1977, 52, 974) prompts two comments. Conscientious paediatricians in a city in Uruguay advise the supplementation of breast milk with infant formula when a healthy infant is following the lowest centile channels on the growth charts. These charts are in fact from USA data obtained from middle-class white infants—a large proportion of whom were artificially fed. What would be needed, ideally, are charts derived from Uruguayan infants, and also charts for solely breast-fed infants. The infants described might be growing quite appropriately for breast-fed infants. Thus, we need norms for breast-fed infants—not only in Uruguay—for at least the first 3–6 months of life.

My second comment is that failure to thrive at the breast may be due to factors admirably covered by the authors. May I add one more? There is a curiously repeated and widespread tradition that 850 ml of breast milk per day is the ideal and optimum quantity, and is used as a basis for calculating protein needs during lactation (FAO/WHO, 1973). It is not entirely clear from where that figure was derived, but today it is rarely reached, particularly after 3 months of age. In Sweden, in a sample of healthy women and thriving infants, it was in the 720–750 ml range. In the developing countries, it is likely to be 500–650 ml (Rowland *et al.*, 1977). The reason I raise this point is because I wonder if such cases as described, among the other possible and clearly important factors, may be associated with low quantities of breast milk.

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References

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- Rowland, M. G. M., Cole, T. J., and Whitehead, R. G. (1977). A quantitative study on the role of infection in determining nutritional status in Gambian village children. *British Journal of Nutrition*, 37, 441–450.

Drs Evans and Davies comment:

It is interesting that paediatricians in Uruguay are advising the supplementation of breast milk with formula when an infant is following the lowest centile channel on the growth chart. In our study, we drew attention to the fact that *crossing* centile lines together with clinical evidence of wasting was the significant finding in the breast-fed infants who were failing to thrive. We do not

necessarily agree that infants whose weight *follows* the lowest centile channel on a growth chart are failing to thrive. We believe that doctors and nurses in our community should be instructed to undress the child completely and examine any infant whose curve of weight suggests failure to thrive, before any advice is given on the need to supplement breast feeding.

Prof. Falkner comments that norms for solely breast-fed infants should ideally be available. Since writing our paper, we have seen many further examples of infants who have failed to thrive on the breast. It is likely, therefore, that 'normal' standards based on breast-fed babies, at least in the UK at the present time, could be misleading and hardly justify the description 'normal'. We believe that 'normal' growth standards in infancy should be based on a sample of infants whose feeding practices represent those of the larger population of infants from which the sample has been taken.

Finally, Prof. Falkner suggests that our infants were failing to thrive because of low quantities of milk being available. While the volumes of milk taken by these infants were not measured, this was also the conclusion that we indirectly reached with the suggestion that with diminishing demand (for poorly understood reasons) the result was a diminishing supply of milk.

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Sir,

In their paper (*Archives*, 1977, 52, 974) Evans and Davies speak of 'failure to thrive at the breast: an old problem revisited', and present 4 cases of infants who without much crying had very poor weight gain and who were entirely breast fed. In the present era of early discharge from the hospital, this is of ever increasing concern to paediatricians. I think it absolutely incumbent on those of us who instruct new breastfeeding mothers that they watch for urine output, emphasising that when the infant is entirely breast fed and able to urinate a minimum of 6 times, and preferably at least 12 times a day, the baby can be considered adequately nourished. Use of sugar water supplements will not permit this method to be used safely.

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