LETTER TO THE EDITOR

Postdischarge Feeding of Growing “Preemies”: Concerns with Limiting Fat Intake

To the Editor:

The didactic update on requirements, types of feeding and dosages of nutrients by Su1 is a useful guide for clinicians on optimization of nutrition in preterm infants. We take this opportunity to focus on postdischarge nutrition in very preterm infants, which has not yet reached consensus, because of concerns regarding the potentially negative consequences of rapid catch-up growth on obesity and metabolic programming. Some formula feeding approaches have been proposed when mother’s milk is not available. The ESPGHAN Committee on Nutrition2 suggests that infants fed postdischarge formula (≥75 kcal/100 mL, protein-to-energy ratio (P:E) 2.5, and fat 4.0 g/100 kcal) should be fed term infant formula (≥67 kcal/100 mL, P:E 2.2, and fat 3.5 g/100 kcal) as soon as they reach appropriate weight for postconceptional age, thereby reducing the fat intake. Amesz et al3 tested a novel postdischarge formula with high P:E (2.54) but relatively low energy and fat densities, similar to term infant formulas. It was found that infants fed the tested formula demonstrated catch-up growth with increased lean mass and relatively low fat deposition.3 Interestingly, Cooke et al4 reported that adiposity was not altered in infants fed preterm formula with a high protein density as well as high energy and fat densities (≥80 kcal/100 mL, P:E 2.5 and fat 4.3 g/100 kcal). A more rapid and complete catch-up growth with increased nonfat and peripheral fat mass was demonstrated in these infants, thus failing to support the hypothesis that using a full nutrient-enriched formula leads to increased or central adiposity.4

In comparison to term infants, very preterm infants are born depleted of fat mass because they forego the last trimester of pregnancy, which is when almost all fat accretion occurs. Thus, growing “preemies” may be particularly sensitive to fat intake in the first postnatal months. Limiting fat intake in early life to avoid early excessive adiposity, instead of preventing obesity programming, may lead to the opposite effect in these infants. A more prolonged and comprehensive assessment, including body composition and serum leptin measurements, is needed to evaluate how low the fat content in formulas offered to growing preemies may be safe in routine practice.

Conflicts of interest

The authors have no conflicts of interest relevant to this article.

References

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