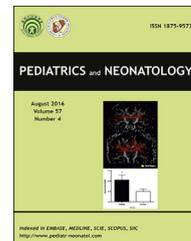


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Letter to the Editor

High protein formula and postnatal growth

Dear Editor

With great interest, I have reviewed the contribution made by Thanh et al.¹ in their paper entitled "Effects of higher protein formula with improved fat blend on growth, feeding tolerance, and nutritional biomarkers in preterm infants: A double-blind, randomized, controlled clinical trial." They demonstrated that preterm formula with higher protein content and an improved fat blend was well-tolerated and provided higher protein-to-energy levels, thereby promoting better catchup growth among preterm infants and remarkably very low birth weight infants.

The study was a randomized and well-designed double-blind trial, but some points need clarification.

First, looking at the CONSORT (Consolidated Standards of Reporting Trials) diagram, the number of included infants in intent-to-treat (ITT) were 79 and 80 in experimental formula (EF) and control formula (CF), which were reduced to 59 and 60, respectively, during per-protocol analysis. Tables 1 and 3 presented by Thanh et al.¹ revealed that the number of infants analyzed still shows the ITT analysis level.

Second, the significant difference in growth velocity (GV) between the EF and CF groups was observed only in the first 21 days after full EFs (FEF). The mean difference between the GV among EF and CF infants was 0.85 and 0.59 g/kg/d, respectively, which was not statistically significant, because preterm formulas with standard protein levels may be sufficient to promote adequate growth as the weight gain velocity naturally slows down after the infant reaches 1800 g and the initial period of rapid growth, as explained by the authors. The benefits of using FEF are undermined if the growth levels off after 21 days.

Third, Figure 2 weight-for-age z-score (WAZ) shows significant initial differences between the EF and CF groups. The mean WAZ fell from -0.55 to -0.75 (estimated from the graph) in the EF group from days 49–79. This fall represented that these infants were inadequately fed nutritional supplements after discharge. Feeding preterm infants with higher incremental volumes have not been shown to significantly affect growth.² Similarly, attaining an earlier catchup growth could be accompanied by the risk of being overweight.³

In conclusion, the study by Thanh et al.¹ is a very well-designed study showing a positive effect of formula with higher protein content and new fat blend (with enriched sn-2 palmitate and reduced medium chain triglycerides) on GV and catchup growth achievement; however, many questions remained unanswered.

Author contribution

Dr. Manzar conceptualized the study and wrote the draft.

Declaration of competing interest

None.

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