## **CORRESPONDENCE** -

To the Editor: Nutritional Requirements For Pre-Term: Are These Easily Gauged? In the February issue of this journal Cooke and colleagues reported a better weight gain without evidence of metabolic stress in preterm receiving a high protein infant formula compared with a group of preterm receiving a standard protein infant formula (1). The authors support the hypothesis that a formula with high protein content could meet the requirements more than a formula with standard protein content for these high-risk infants. The question is: what are the nutritional requirements for preterms? Their nutritional needs change continuously according to their clinical conditions. The newborn babies examined were in stable conditions and needed no oxygen therapy. The preterm were examined at 22 d of life, at which time the motors and absorbing function of the intestine were stable because the normal relationships with the intestinal micro flora, the development of tight junctions and the intestine blood flow were already established. The authors provide no data on oral tolerance of high protein infant formula nor on the appearance of gastrointestinal diseases. Neither do they supply information how the formula can influence the normal intestinal ecosystem. It should be specified in the conclusions that the high protein formula should not be used to start enteral feeding before randomized studies have excluded the effects of its protein concentration on NEC. Also the impact of high protein formula on gut micro flora and gut production of cytokines and other inflammatory mediators has to be assessed. The latter could damage other organs in view of the interplay between the intestinal immunity system and the systemic one. These elucidations would reduce the doubts on the use of the formula. Furthermore, it is not completely correct to say that if this formula provides no advantages, it is safe at any rate. Since the new position paper on milk preparation (2) states that nothing should be added in milk preparation unless beneficial. In this study only one apparatus has been evaluated in nine babies who were stable and not in critical conditions. While the authors have correctly stated that other investigations should be carried out to assess the protein value it should be pointed out the postnatal period in days and the possibility to modify the formula according to the clinical conditions of the preterm baby.

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## REFERENCES

- Cooke R, Embleton N, Rigo J, Carrie A, Haschike F, Ziegler EE 2006 High Protein in pre-term Infant Formula; Effect on nutrient balance, metabolic status and growth. Pediatr Res 59:265–270
- Koletzko B, Baker S, Cleghorn G, Neto UF, Gopalan S, Hernell O, Hock QS, Jirapinyo P, Lonnerdal B, Pencharz P, Pzyrembel H, Ramirez-Mayans J, Shamir R, Turck D, Yamashiro Y, Zong-Yi D 2005 Global standard for the composition of infant formula: recommendations of an ESPGHAN coordinated international expert group. J Pediatr Gastroenterol Nutr 41:584–599

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