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Effect of Oral Zinc in Management of Hyperbilirubinemia in Term Neonates

We read with interest the article on effects of zinc supplementation on serum bilirubin levels in term neonates with hyperbilirubinemia undergoing phototherapy [1]. We would like to highlight and seek clarifications regarding certain aspects of the study.

Dehydration is a common cause of neonatal hyperbilirubinemia and can be a cause of increased enterohepatic circulation leading to hyperbilirubinemia. The weight of the babies at the time of enrolment has not been mentioned. It has been mentioned in the study that all babies who were enrolled were given breast milk and spoon feeds. It is logical to assume that after enrolment, feeding in the neonatal intensive care unit (NICU) would have been regularized and all babies would now be getting adequate milk orally. This in turn will reduce the enterohepatic circulation, leading to faster reduction in bilirubin levels of the babies. Hence, NICU admission weight, comparison of percentage of weight loss and to some extent stool output between zinc group and placebo group would have provided additional information and removal of bias due to regularization of feeds.

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AUTHORS' REPLY

We appreciate the interest in our article [1] and the insightful comments from the readers. We agree with the author's comment that dehydration can exacerbate hyperbilirubinemia by increasing enterohepatic circulation. In our study, all neonates were closely monitored, and none had clinical signs of dehydration.

The inclusion criteria in our study ensured all infants were term neonates and that birth weights were comparable between the groups. We agree that regular feeding practices in the NICU could potentially impact bilirubin levels. However, all infants received standardized feeding protocols regardless of group allocation, and we maintained a randomized controlled trial design and double-blinding to minimize the potential bias due to feeding practices. Additionally, the significant difference in bilirubin reduction observed between the groups strongly suggests an effect of zinc supplementation.

We acknowledge that comparing weight loss and stool output between the zinc and placebo groups could have provided valuable data. We recommend including such analysis in future studies.

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