One Year Outcome of VLBW Infants

We read with much interest the research paper on growth and neurodevelopmental outcomes of VLBW infants at 1 year corrected age by Modi, *et al*. [1]. There are indeed, not many follow-up studies from India featuring long term outcomes of preterm infants. The present study, although a step in this direction, does not add substantially to the existing knowledge considering the modest sample size and follow-up timeline of 1 year. Following points need to be highlighted.

The sample size calculation is not mentioned and the blinding of the developmental paediatrician is not specified.

Almost half the infants (46%) in the cohort are small for gestational age (SGA). These babies are well known to have different outcomes than their AGA counterparts (whether term or preterm) in both short and long term [2-4]. Segregating SGA from AGA and analyzing the results separately would have given more credibility to the results, especially in this scenario wherein, there is an almost 3 week difference between mean gestational age of AGA and SGA infants, thereby complicating the results further! Also, comparing VLBW-SGA babies with NBW-SGA babies would be more meaningful as also comparing VLBW-AGA babies with NBW-AGA babies. The authors mention that there was growth catch-up shown by all babies in all anthropometric parameters. The difference in catch-up growth, between AGA and SGA babies if any, needs to be highlighted.

The authors have drawn conclusions that the developmental indices are significantly lower in VLBW babies than NBW counterparts at 1 year corrected age. Firstly, the sample size seems too small to draw any such conclusions. Secondly, the assessment was made at 1 year of age when some of the components of DASII scale which can only be performed for example at 18-24 months, cannot be applied (which the author also points out). Therefore, the significance cannot be judged appropriately. Thirdly, the statistical significance found in the study is unlikely to be of any clinical relevance as all the babies who were assessed scored above 90 on DASII scale. Similarly, the head size of – 1 SD although on the smaller side, but is within normal limits. Developmental indices of > 90 are also within normal limits. Therefore it's very difficult to draw the conclusion of poor neurological outcome from the available data.

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REPLY

The readers have raised some pertinent issues. This study highlights the neurodevelopment of a relatively small sample at one year of age. The limitation of the study has been that it was a time bound study and so we had to limit the follow-up period to one year. This will happen in our scenario till the time prospective studies are funded and we look for research beyond the thesis or dissertation of postgraduates. The response is as follows:

Since this was a time bound study, consecutive VLBW infants born during the study period at a single centre were enrolled for the study sample and followed. The developmental pediatrician did all the assessment at the follow-up clinic at the hospital, in a masked manner.

We agree to suggestion by reader that outcomes of SGA and AGA infants might be different. Due to small number of subjects and even smaller on subgroups, the analysis didn't show difference in developmental indices of AGA and SGA infants. Thus we are not powered to

make this conclusion. Similarly comparison of catch up of AGA and SGA infant was not possible.

The mean difference and their confidence interval suggest that developmental indices of VLBW infants were significantly lower than those of NBW infants.

Early age of assessment is the limitation of present study, and a much longer follow up might have been more informative. We would like to clarify that DQ of all VLBW infants was not above 90, it was the mean DQ of this group. A mean DQ below 85 was observed in 22% of infants. This finding along with difference of 6 point in mean DQ between two groups cannot be underestimated and warrants a long-term follow up of these infant for their later outcomes. Also amongst babies who have a DQ above 90, it needs to be investigated, how these infants behave cognitively who have DQ of 90 as compared to those with 98.

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Vitamin D: The Emerging Superstar

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There are certain issues that need to be emphasized in the recent review article on Vitamin D deficiency [1].

The authors' recommendation of 400 IU daily to toddlers and adolescents is erroneous. The current recommendation for this group is at least 600 IU per day [2]. Commercial preparations of 1000 IU per drop have the potential for Vitamin D toxicity.

The authors also state that "Supplementation in newborn period: For infants who are exclusively breastfed a minimum daily intake of 400 IU/day should be initiated within a few days after birth. Since most of the infant formulas contain 400 IU/L, infants who are on formula feeds also need supplementation unless they consume more than 1000 mL of formula per day."

Careful scrutiny of the commercial infant formulae available in the Indian market tells us a different story. Virtually no preparation has the concentration mentioned by the authors.

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REPLY

We agree that the recommended intake above 1 year is 600 IU as per Endocrine society guidelines. This has been taken into consideration in the article wherein the maintenance dose has been recommended as 600 to 1000 IU for 1 to 18 years old. Concentrated drops are best avoided as daily supplements because of risk of toxicity due to erroneous administration. Indian infant milk formulas provide vitamin D ranging from 288 to 378 IU/L, lower than the products available abroad.

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Influenza -B Associated Rhabdomyolysis With Acute Renal Failure

I read with interest the recent article "Influenza -B Associated Rhabdomyolysis with Acute Renal Failure" [1]. The boy developed dark urine with oliguria on day 5th of admission in consequent to right upper pneumonitis caused by Influenza-B virus. The dark urine with renal failure could be due to hemoglobinuria or myoglobinuria.The authors have assumed it to be due to rhabdomyolysis leading to myoglobinuria based on striking elevation of serum creatine kinase (CK), LDH.AST/ALT only. Screening of urine should be done by Dipstick or Orthotoludine blue test which will be indicative of hemoglobinuria, myoglobinuria, or hematuria. Absence of RBC on urine microscopic examination will rule out hematuria. Further urine