which normally should have been more. This finding needs some deliberation. The study does not reveal the details of calcium supplementation to lactating mothers and infants. Vitamin D replenishment without calcium supplementation may be counter-productive due to progressive bone-resorption by activated PTHrP [2].

The study likely deprived the infants of recommended vitamin D supplementations as per IAP recommendations [5]. The details of exclusive and total breast feed duration, and complementary feeding are also missing.

The primary concern with bolus doses of vitamin D is toxicity. Though the authors have defined the exclusion for toxicity; criteria of stopping the trial in case excessive vitamin D toxicity is encountered is unclear. Monitoring for toxicity twice only at 6 months and at 1 year seems too less for an intervention, which has been postulated to have no additional skeletal benefit apart from raising vitamin D levels [5].

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AUTHOR’S REPLY
We thank the editor of the esteemed journal Indian Pediatrics and fellow readers for showing interest in our study and appreciate their concerns.

We have already mentioned that daily dosing of vitamin D supplement is more physiological than bolus dose; however, efficacy may be affected by poor compliance and acceptability. The maternal serum vitamin D estimation was done at baseline i.e., before starting of vitamin D supplementation and after 12 months of supplementation. We agree, that study results would have been more robust with estimation of breast milk vitamin D levels. Estimation of breast milk vitamin D is a tedious job and our lab has not standardized the breast milk vitamin D assay so it was not planned in the present study.

Chemiluminescent immunoassay certainly does not differentiate between 25(OH) vitD2 and 25(OH) vitD3 forms. Vitamin D2 supplementation was not given at any time point during the study. Therefore, differentiating between vitamin D2 and D3 does not seem to be essential.

The concern of lower serum calcium after vitamin D supplementation in both, mother as well as infants as compared to baseline level is valid. However, all values were within normal range. Measurement of serum iPTH could have answered this differential response, since long standing deficiency of vitamin D might have led to secondary hyperparathyroidism thereby maintaining serum calcium levels and with supplementation of vitamin D one year, serum iPTH must have reached normal levels. Also, measurement of ionized calcium could have helped to answer this differential response. Due to logistic issues with collection, storage and transportation of samples, serum iPTH levels were not planned to be measured in the present study.

No additional calcium supplementation was provided to mothers and infants other than 1g calcium supplementation, which is prescribed to lactating mothers as a part of routine clinical care. This supplementation was uniform for both the groups so differential effect of calcium supplementation would have been neutralized between the groups.

The concern about not using recommended vitamin D supplementation is well accepted; however, its practical applicability is reported to be affected by poor compliance (<20%; reference 9 in manuscript). There is published evidence for high dose vitamin D supplementation to lactating mothers to address the dual problem of vitamin D deficiency in mother-infants duo. This aspect has already been discussed in the manuscript. Moreover, since both groups received vitamin D and not the placebo, there was no concern of vitamin D deprivation in either groups.

The issue of monitoring for toxicity seems theoretical. We have used validated and standard criteria for monitoring, which have been used by others and us previously also [1].

There is sufficient literature on safety of high doses of maternal vitamin D supplementation. Endocrine society recommends 4000-6400 IU/day to lactating mothers to maintain serum 25OHD levels >30 ng/mL in exclusively breast fed infants [2]. Therefore very low risk of toxicity is anticipated with such doses of vitamin D supplementation.

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