



Letter to the Editor

Bone turnover analysis and vitamin D status in children with epilepsy



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To the Editor,

We have read the recently published article by Kija and colleagues, entitled “Vitamin D abnormalities and bone turn over analysis in children with epilepsy in the Western Cape of South Africa” with great interest [1]. The authors studied the effect of antiepileptic drugs on bone metabolism and found that 16.6% of children with epilepsy and 8.8% healthy children had vitamin D deficiency. We congratulate the authors for their excellent work and want to add few points.

Vitamin D deficiency is a global public health problem affecting both sexes and all age groups, especially children. Different studies have shown that 50–90% of the world's population is vitamin D deficient [2]. A recent study by Zelda White [3] and colleagues has shown that vitamin D deficiency is also prevalent in South Africa: having studied the vitamin D status of healthy pre-adolescent black children in Pretoria and they found that 66% were vitamin D deficient. The food habits and the environment are nearly similar in Pretoria and Cape Town. In contrast, the results of the study by Kija et al. [1] revealed a much lower prevalence of vitamin D deficiency in healthy children of Cape Town. This could be due to a small sample size or a relatively greater number of toddlers in their cohort (who are likely to have received vitamin D supplementation during infancy or later).

The study by Kija et al. [1] was a case-control study; however, we feel that the controls were not comparable to the cases in terms of age and sex. The median age of the cases was 9 years (range: 1–17 years) whereas that of the controls was 3 years (range: 1–12 years). We agree with the authors that age does not affect bone metabolism before puberty. However, many of the children in the case group are likely to have entered puberty, as the upper end of the age range was 17 years in this group.

Authors classified vitamin D status as deficient (≤ 20 ng/mL), insufficient (21–29 ng/mL), and sufficient (≥ 30 ng/mL). However,

almost all the recent guidelines including the Endocrine Society Global Consensus Recommendations 2016 suggest different cut off levels. Most of the guidelines define vitamin D levels as deficient (< 12 ng/mL), insufficient (12–20 ng/mL) and sufficient (> 20 ng/mL). The cut-off value of sufficient vitamin D levels used by Kija and colleagues [1] was higher than in most of the international recommendations. This may lead to overzealous vitamin D supplementation and subsequent adverse effects [4].

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References

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