

Vitamin D deficiency: An emerging pandemic

Dear Editor,

We read with great interest the review article by Aparna *et al.*^[1] in the recent issue of your journal. I would like to commend the authors for their endeavor to highlight the under-recognized public health problem and suggesting potential solutions for the same, but at the same time have the following comments to offer, explanation to which will benefit the readership of the journal.

1. The diagnostic cutoffs of the levels of serum vitamin D given in Table 1 are based on the Endocrine Society Clinical Practice Guideline (ESCPG) 2011 which are relatively old. A recently published review of guidelines^[2] suggests that all international guidelines except ESCPG agreed upon the cutoff of >20 ng/ml as sufficient, 12–20 ng/ml as insufficient, and <12 as deficient. The same cutoffs have been endorsed by Indian Academy of Pediatrics.^[3] Statistically, also, the cutoff of 20 ng/ml is more appropriate as it coincides with the level that would cover the needs of 97.5% of the population.^[3] Defining a standard cutoff is very necessary as increasing the cutoff will greatly affect the prevalence rate of insufficiency and will increase the treatment rate. Also, the cutoff for toxicity is much lower than given by authors
2. As highlighted by authors that the 25(OH)D rather than 1,25-dihydroxyvitamin D levels should be measured as it greatly depends upon parathyroid hormone concentrations. The same has been endorsed by the American Academy of Nutrition as well as other prominent societies. The other more important reasons for recommending 25(OH)D levels are the very short half-life of 1,25-dihydroxyvitamin D (4 h), little or no relationship of serum levels of 1,25-dihydroxyvitamin D to vitamin D stores, and practical challenge to measure with accuracy due to its picomolar concentrations and lipophilic nature. The measurement of 1,25-dihydroxyvitamin D levels should be reserved for specific conditions like chronic kidney disease, etc. Recently, there is a surge in the request of 1,25-dihydroxyvitamin D levels; hence, it is very important to educate the physicians about these limitations
3. Authors should highlight the role of vitamin D in the pathogenesis of recurrent wheeze as well as asthma.

Recent Cochrane review of high-quality studies showed that vitamin D reduced the risk of asthma exacerbation in children as well as adults, hence reduced emergency visits as well as hospitalization.^[4] Also, it has been seen that prolonged vitamin D deficiency may lead to stunting and vitamin D supplementation may be an intervention to prevent and mitigate childhood stunting^[5]

4. Apart from those highlighted by authors, few other reasons for vitamin D deficiency pandemic in India are wrong cooking practices, the high prevalence of lactose intolerance, increased intake of coffee and tea, and lack of adequate supplementation/fortification.

As highlighted by authors, we physicians must understand ourselves as well as educate the common peoples and the policy makers that sunlight alone is not sufficient, the adequate supplementation, as well as fortification of staple foods, is the key to halt this pandemic.

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Conflicts of interest

There are no conflicts of interest.

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