

Author's reply

Sir,

We thank the readers¹ for their interest in our article “slipped upper femoral epiphysis (SUFE): Outcome after *in situ* fixation and capital realignment technique.”² Our purpose in including vitamin D status was to highlight the deficiency of this along with other metabolic and endocrine conditions associated with SUFE in our patients and not to establish a causal relationship.

We do agree that the results section should read. “20 out of 21 patients were vitamin D deficient.” The system of classification of vitamin D serum levels used by us has three categories sufficiency, insufficiency and deficiency and our mean levels fall in the deficient category. Standards followed for classifying the vitamin D levels in our laboratory are less than 20 ng/ml as deficient, 20-32 ng/ml as insufficient and >32 as sufficient.³ According to this review article, in New

England Journal of Medicine less than 20 ng/ml is considered as deficient by most experts and a level of 20-32 is considered a relative insufficiency of vitamin D as intestinal absorption of calcium increases by 45-65% when the vitamin D value increases from 20 to 32. Hollis in 2010 in defining a normal circulating vitamin D level considered a deficiency as less than 32 based on the circulating levels of parathyroid hormone viz-a-viz. vitamin D.⁴ In our experience, most adolescents even with vitamin D levels less than 5 ng/ml do not show classical radiological rachitic changes. Two of our children who had levels <5 ng/ml and nine who had levels <10 ng/ml did not have radiological rachitic changes. In considering vitamin D levels it is not the populations' means, but ideal values for optimal health such as those for serum cholesterol, which are relevant as the mean values may depend upon the environmental and nutritional factors in the region.

Regarding the second comment by reviewers on suggesting a comparison with healthy children and adolescents this is the subject of another study by us where we have compared 15 consecutive slipped capital femoral epiphysis (SCFE) children with age, gender and habitat matched controls and shown a significant association between subnormal vitamin D levels and SCFE in children and adolescents from India.⁵

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