

Vitamin D Deficiency: Are we still ignoring the evidence?

Madam, Serum 25 hydroxyvitamin D (25OHD) is the major circulating metabolite of vitamin D and reflects its overall nutritional status. Its deficiency is a recently recognized epidemic in many parts of the world. Evidence demonstrates association between low vitamin D status and risk of many chronic diseases¹.

Recently, a preclinical phase of vitamin D deficiency, known as vitamin D insufficiency is identified; when Serum 25 hydroxy vitamin D (25OHD) levels are between 21-29 ng/ml. This is associated with a slightly elevated serum PTH concentration and a mild increase of bone turnover, which increases the risk of fractures. Levels less than 20 ng/ml are regarded as deficient. Maintaining blood concentrations of 25(OH) D at least 30 ng/ml is important for maximizing intestinal calcium absorption¹.

There are sporadic reports of D deficiency and sub clinical osteomalacia from Pakistan till 2004 in pregnant and lactating women from Pakistan². Recently low levels have been reported in OPD patients from a public hospital in Karachi and in patients with hip fracture and from Hazara District³⁻⁵.

One of our study showed that 92% of patients were D deficient in ambulatory care setting. Of whom 62% had severe, 24% moderate and 8% had mild deficiency. Nearly half of all these patients (including those with severe deficiency) were asymptomatic. Whereas a low serum calcium, elevated phosphate and elevated alkaline phosphatase were reflective of severe deficiency, it was only an elevated iPTH that correlated with mild to moderate deficiency⁶.

The status of 25(OH) D in our local population has not been assessed. During the last decade, there has been a general increase in the use of vitamin D measurement in our Clinical Laboratory at The Aga Khan University Hospital. Our data shows that out of 2625 cases till 2006, 36.4% had insufficient levels and 30%

are D deficient by current criteria.

There is no published data regarding the prevalence of 25(OH) D insufficiency in adult healthy population. In another study (S Mansoor, AH Khan et al: unpublished data, submitted for publication) from our center to characterize the vitamin D status of healthy asymptomatic population, we found 70% of the healthy volunteers from a total of 93 cases, to be D deficient. Of more significance was the presence of elevated PTH in 28% of these individuals which is regarded as an earliest marker to indicate D deficiency. Significant associations with life style variable could not be established due to small sample size.

In spite of abundant sunshine, undiagnosed vitamin D deficiency is prevalent in our setup. There is a need to determine the vitamin D status in our community. With the magnitude of deficiency that is seen in our healthy and diseased population, fortification of food items is required. It is important to make physicians aware of the high prevalence of vitamin D deficiency in apparently healthy looking population. Measures for improving vitamin D status are needed to eradicate the existence of vitamin D deficiency.

Aysha Habib

Department of Pathology, The Aga Khan University, Karachi.

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