Evaluation of Vitamin D level in thalassemia patients: The experience of a single center

Sir,

It is worthy to comment on the article by Al-Rubae *et al*.[1] published in the July–December 2023 issue of the *Iraqi Journal of Hematology*. Al-Rubae *et al*.[1] evaluated Vitamin D (VD) levels in thalassemic patients attending a single center in Iraq and investigated potential associations with other factors. They found that 87.5% of patients were VD deficient (serum VD levels <30 ng/ml). Moreover, VD deficiency was more common in younger patients and those having higher serum ferritin levels, though the differences were not statistically significant.[1] We believe that the validity of the study findings could be biased by the following three limitations.

First, there are various standards to assess VD status such as the World Health Organization, Institute of Medicine Committee to Review Dietary Reference Intakes for Vitamin D and Calcium, Endocrine Society Clinical Practice Guideline, and population-specific standards. Indeed, the notable differences in the cutoff values used for defining VD status among these standards are problematic and they could result in either overestimation or underestimation of hypovitaminosis D.[2] Al-Rubae *et al*.[1] mentioned in their study that serum VD levels <30 ng/ml were considered deficient, whereas >30 ng/ml were considered normal. However, they did not mention the reference of the standard utilized to classify VD status in the studied population. As a result, this limitation could importantly jeopardize the credibility of the study results.

Second, Al-Rubae *et al*.[1] stated in the study methodology that they utilized MINI VIDAS immunoassay in the hospital setting to measure serum VD levels in the studied population. It is important to note that there are many laboratory methods to quantify VD levels in biological samples such as radioimmunoassays, liquid chromatography with ultraviolet detection, chemiluminescence immunoassays, enzyme-linked immunosorbent assay, tandem mass spectrometry, and others. Evaluation of various methods for VD measurement displayed inconsistent results.[3,4] We believe that referring to the other laboratory methods to estimate serum VD levels might generate various results.

Third, VD insufficiency/deficiency is an increasing concern in the plentiful sunny Eastern Mediterranean Region, including Iraq which markedly affects the population in different age groups.[5] We realize that Al-Rubae *et al*.[1] studied VD status specifically in thalassemic patients in Iraq. However, considering the notion that the whole population in Iraq is impacted by some VD deficiency, it is reasonable to suggest conducting a case-control study to unequivocally survey VD status in thalassemia patients and unveil any statistical differences in VD levels between cases group (thalassemia patients) and control group (healthy individuals). This option could better elucidate the spectrum of VD status and associated factors among thalassemic patients.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Submission: 05-01-2024
Revised: 26-01-2024
Accepted: 29-01-2024
Published: 11-03-2024

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Access this article online	
Quick Response Code:	Website: https://journals.lww.com/ijhm
	DOI: 10.4103/ijh.ijh_2_24

How to cite this article: Al-Mendalawi MD. Evaluation of Vitamin D level in thalassemia patients: The experience of a single center. Iraqi J Hematol 2024;13:157-8.