

Vitamin D as an Underlying Factor in Sleep-Related Issues

Commentary on McCarty et al. Vitamin D, race, and excessive daytime sleepiness.
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The paper in this issue by McCarty and colleagues¹ is noteworthy. The authors reported that patients without deficiency in vitamin D showed an inverse correlation with excessive daytime sleepiness (EDS), and a minority of this sample was black. In those patients with vitamin D deficiency, the somnolence was directly correlated in black individuals. Thus, it is important to stress that the remarkable observation that excessive daytime somnolence may be associated with vitamin D deficits does indeed open a broad range of possibilities that radically depart from the classic context of bone demineralization. Furthermore, this article is in accordance with recent studies, in which vitamin D is discussed as an underlying factor in several sleep- and chronobiology-related issues.²⁻⁴

Although it is too early to make assertive statements regarding the multiple consequences vitamin D deficits might engender, such outcomes factually extend beyond the continuous fixation of calcium by osteoblasts and its sequestering from the bone by osteoclasts to balance body acidity. A possible mediator of such consequences could be melanin, which plays a key role in the synthesis of the first form in the vitamin D chain. Melanin is known to affect sleep patterns, making it all the more reasonable to assume that altered concentrations of vitamin D, be they caused by skin complexion or otherwise, will affect the sleep pattern, particularly in light of the observation that symptoms of sleep deprivation are present in the form of excessive daytime somnolence.

We congratulate the authors for their insight and remain hopeful that the observations made will help spur a new line of research to determine whether it is sleep deprivation that causes the deficiency in vitamin D, or if it is the shortage of vitamin D

that interferes with the sleep pattern. In conclusion, this study is timely and presents results that will increase the interest in a broad range of fields.

CITATION

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DISCLOSURE STATEMENT

The authors have indicated no financial conflicts of interest.