IS VITAMIN D CAPABLE OF HELPING US RECOVER FROM THE COVID-19 PANDEMIC?

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Adequate nutrition is an integral part of well-being in humans. Malnutrition and lack of certain nutrients impair immune system functions. A recent systematic review revealed that malnutrition was related to negative outcomes including transfer to intensive care units and deaths in older individuals with coronavirus disease 2019 (COVID-19) [1].

Vitamin D is one of the essential nutrients with numerous functions in the human body [2]. Acting as a hormone, vitamin D interacts with its receptors in almost all tissues [3]. Therefore, its functions are not limited to bone metabolism/musculoskeletal system. Vitamin D play a role in several non-skeletal conditions such as infections, malignancies, cardiovascular diseases, diabetes, and autoimmune diseases [4]. Over the past year, researchers have focused on examining its potential impact on severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection with several questions in mind: Does hypovitaminosis D increase the risk of COVID-19? Does vitamin D have an impact on disease course/prognosis?

Research findings on this topic are mixed and there are ongoing studies [5]. Although a potential direct

link/cause-effect association between vitamin D status and COVID-19 is a matter for debate and still being studied, there are multiple observations with regard to an indirect link between these two entities [6]. Vitamin D is a determinant of the patients' comorbidity status [6] and has several extra-skeletal effects which might include the modulation of immune response to pathogens [7].

Overall, regardless of the controversy whether vitamin D protects against COVID-19, keeping an adequate level of vitamin D important for bone health [5]. Implementing nutritional evaluation and nutritional care management into treatment plans of patients with COVID-19 would be of value [8].

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REFERENCES

1. Damayanthi HDWT, Prabani KIP. Nutritional determinants and COVID-19 outcomes of older patients with COVID-19: a systematic review [published online ahead of print, 2021 Mar 31]. *Arch Gerontol Geriatr* 2021;95:104411.
2. Stöcklin E, Eggersdorfer M. Vitamin D, an essential nutrient with versatile functions in nearly all organs. *Int J Vitam Nutr Res* 2013;83(2):92-100.
3. Coskun Benlidayi, I. Is vitamin D a panacea? *Rheumatol Int* 2020;40:821-822.
4. Grant W. Comparing vitamin D status in Central Asia and Northern Europe. *Cent Asian J Med Hypotheses Ethics* 2020;1(1):33-42.
5. Rubin R. Sorting out whether vitamin D deficiency raises COVID-19 risk. *JAMA* 2021;325(4):329-330.
6. Ulivieri FM, Banfi G, Camozzi V, Colao A, Formenti AM, Frara S et al. Vitamin D in the COVID-19 era: a review with recommendations from a G.I.O.S.E.G. expert panel [published online ahead of print, 2021 May 17]. *Endocrine* 2021;1-7.
7. Kumar R, Rath H, Haq A, Wimalawansa SJ, Sharma A. Putative roles of vitamin D in modulating immune response and immunopathology associated with COVID-19. *Virus Res* 2021;292:198235.
8. Thibault R, Coëffier M, Joly F, Bohé J, Schneider SM, Déchelotte P. How the COVID-19 epidemic is challenging our practice in clinical nutrition-feedback from the field. *Eur J Clin Nutr* 2021;75(3):407-416.

COVID-19 КЕЙІН ҚАЛПЫНА КЕЛТІРУ ҮШІН D ДӘРУМЕНІ ТИІМДІ МЕ?

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