

Is Vitamin D more Important than the Medicine? A Short Note

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COMMENTARY

Vitamin D affects almost 50% of the population globally when it is insufficient. Overall one billion people across the world of all age groups are having or suffering with the vitamin D deficiency. In general, vitamin D deficiency is called as VDD in medical terminology. This VDD has become a sort of the pandemic that has great impact on the lifestyle and environment. The environmental factors include the sunlight, UV-B etc.. The lesser the body exposed to the sunlight, the more the vitamin D deficiency (VDD). It is well known that the black people absorb more UVB as a result of the presence of the melanin under the skin. The VDD has the efficiency to lead to the risk factors, even more dangerous such as mortality. By seeing this, there are many research works going on the VDD. There are evidences that, the VDD is also a causative for many diseases such as cancers, fractures and autoimmune disorders or diseases and even depression. The healthcare systems are making a note on vitamin D and its supplements such that the VDD shouldn't be the reason for causing the other diseases. There are many Vitamin D supplements available and even nutraceuticals and pharmaceuticals that help to overcome this VDD. As vitamin D was found fourth within the order, it is named as D and the most and well known two isomers of vitamin D are vitamin D2 and vitamin D3. The vitamin D2 is known as ergocalciferol and vitamin D3 is known as cholecalciferol. Vitamin D accounts about 75% to 80% of the supply to the skin, whereas, the other dairy products, do not occupy as of the vitamin D. Vitamin D status can be predicted by isolating the vitamin D hydroxylation of liver 25(OH) D, the concentration of the vitamin can be examined by the presence in the serum, which is an effective and simplest parameter to extend the half-life. The serum concentrations are mainly derived from the renal hydroxylation of 25(OH) D and are linked up with the mineral metabolism rates. Vitamin D circulates in the body by the vitamin D binding protein and to lesser extent it has the albumin and lipoproteins. Some tissues, take up the vitamin D binding protein and metabolites by the megalin cubilin system.

VITAMIN D DEFICIENCY

With today's lifestyle and busy schedule, there is really a great impact on the people. Mostly, those who are under corporate lifestyle, they are at higher risk of VDD. The only natural source for the people and animals on the earth to get the vitamin D is the sunlight. To the countries that are with lowest temperature, they

have less sunlight and hence they generally prefer the vitamin D supplements. The people who have most sunlight exposure, they prefer to apply the sunscreens and almost 95% of the sunlight do not penetrate into the skin. People with natural dark skin tone, they have the natural sun protection than those of the white skin toned people. Also, there is an inverse association of serum and body mass index where obesity is related to VDD. Patients with malabsorption of vitamin D i.e., malabsorption syndromes and bariatric patients are often suggested to take up the vitamin D. The patients with nephritic syndrome also gave the less vitamin D binding protein within the urine. The deficiency is also seen in the patients that are under the medication of the anticonvulsants and other high dose antibiotics, steroids that are generally used for treating the AIDS/HIV and also the patients those with the treatment of the cancer, fungal infections etc., are at higher risk of VDD.

CLINICAL EFFECTS OF VITAMIN D

As the vitamin D metabolites generally pass through the circulation with the help of the vitamin D binding metabolite, there the downstream regulation of genes have impact by reducing the absorption frequency. Vitamin D can feature the clinical role in the regulation of the calcium and phosphate metabolism that affects the intestine, organs such as kidneys and liver and even the bones. The adequate amount of the vitamin D status is required to keep a note of maintaining the calcium and phosphate levels and that prevents the secondary causatives of the hyperparathyroidism. There is an history on the vitamin D in which, the invention of the vitamin D used to be essential for the successful prevention of epidemic rickets within the 20th century. Over the recent times, there are many inventions of the supplements with vitamin D and there are many studies performed and shown that those supplements have a positive impact on the lives of the people with VDD and VDD associated disorders and diseases. There are several guidelines in regard of the vitamin D which has become a source for clarity and to avoid the confusions and misinterpretations and also for those which are intended for the patient care. With the VDD, there are many risk factors physically as well as mentally. The less absorption of the vitamin D, there are the major causatives that lead to the diseases such as skin disorders, cancers, internal organ damages etc. Therefore, the clinical effects of the vitamin D deficiency are being a source for letting know the importance.

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CONCLUSION

There are many factors for causing the VDD and there must be an eye on the factors that cause the VDD such as less sunlight exposure, using more sunscreen products, living in places where sunlight is blocked, having the darker skin tones. Therefore, people

should be aware of the vitamin D and the diseases associated with the vitamin D deficiency. One who has no facility to get sunlight, they must concentrate on the supplementation and the foods that contain Vitamin D. Because, VDD once attacked, it slowly raises other health issues.