Physician - Venous and Lymphatic System Diseases and Surgery/Endovenous Interventions

[MSB-20]

The Role of Vitamin D in the Development of Thrombosis in Varicose Veins

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Objective: This study aimed to investigate vitamin D levels in patients with varicose veins.

Methods: Seventy-five patients (25 males, 50 females; mean age: 47.78±12.84 years; range, 24 to 80 years) with varicose veins in the lower extremities between December 2021 and August 2024 were included in the study. In addition to routine laboratory tests, vitamin D, vitamin B12, magnesium, and folate levels were measured in all patients. Since it reflects both endogenous vitamin D production and exogenous vitamin D intake, vitamin D status was assessed by measuring 25-hydroxycholecalciferol levels.

Results: Thirty (40%) patients had thrombosis in their varicose veins. While the mean vitamin D level in patients without thrombosed varicose veins was 14.08±8.10 ng/mL, the mean vitamin D level in patients with thrombosed varicose veins was 12.19±6.92 ng/mL. The difference between the two groups was statistically significant ($p<0.05$).

Conclusion: Varicose veins that are thrombosed near the saphenofemoral or saphenopopliteal junctions may lead to complications such as spread to the deep venous system and subsequent embolization to the pulmonary vascular bed. Therefore, we believe that patients with thrombosed varicose veins should be surgically treated without delay. However, patients with nonthrombosed varicose veins may also be prone to thrombosis due to various known or unknown risk factors, such as stasis and vitamin D deficiency. Therefore, treatment of nonthrombosed varicose veins should also be planned.

Keywords: Thrombosis, vitamin D, varicose vein.

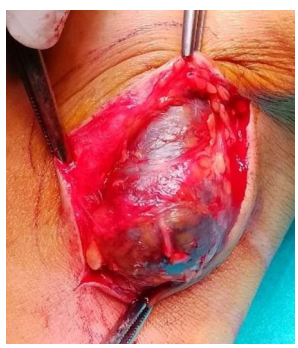

Figure 1. The thrombosed varicose vein next to the saphenopopliteal junction.

References

1. Ekim M, Ekim H. Vitamin Levels in Patients with Superficial Vein Thrombosis. Euroasia Journal of Mathematics, Engineering, Natural & Medical Sciences. 2022;9:1-8.
2. Karathanos Ch, Sfyroeras G, Drakou A, Roussas N, Exarchou M, Kyriakou D, et al. Superficial vein thrombosis in patients with varicose veins: Role of thrombophilia factors, age and body mass. Eur J Vasc Endovasc Surg 2012;43:355-8. doi: 10.1016/j.ejvs.2011.12.019.
3. Poredos P, Kozak M, Antignani PL, Jezovnik MK. From varicose veins to venous thromboembolic events. Int Angiol 2023;42:254-9. doi: 10.23736/S0392-9590.23.04948-9.
4. Mohammad S, Mishra A, Ashraf MZ. Emerging role of vitamin D and its associated molecules in pathways related to pathogenesis of thrombosis. Biomolecules 2019;9:649. doi: 10.3390/biom9110649.