

# ASSESSMENT OF PATIENTS' KNOWLEDGE REGARDING VARICOSE VEINS DISEASE

**Dr. Petraq Mustaqe, MD. Jerina Jaho**

<sup>1</sup> Department of Scientific Research, University of Vlora "Ismail Qemali", Albania

Corresponding author: [dr.petraqmustaqe@gmail.com](mailto:dr.petraqmustaqe@gmail.com)

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## Abstract

This study aims to present a complete epidemiological overview of the knowledge of patients about varicose vein disease in the city of Vlore. The study summarized all cases diagnosed by the angiologist, identifying risk factors, different age groups, surgical intervention, complications, and progress of these patients. In this cross-sectional study, we included 600 patients diagnosed with varicose veins. The patients participating in the study completed a questionnaire with questions divided into several sections. The first part belonged to questions about demographic data; the second part was related to the recognition of risk factors by sick patients; and finally, there was a section of questions related to surgical intervention for varicose veins. Regarding the age group, it turned out that patients with varicose veins belong to different age groups. 2.7% of patients belonged to the age group of 20–24 years. The age group of 61–65 years old made up 8.3% of the sample, and 6.5% were those patients in the age group over 65 years old. 32.5% of the sample belonged to the male gender, and 67.5% belonged to the female gender. Regarding hereditary as a risk factor, 4.17% of those who do not consider heredity an important factor belong to the age group of 56–60 years. There are only 30.8% of patients who stated that they underwent a surgical intervention. 69.2% have not done such a thing. The patients with varicose veins were of different age groups. According to the patient's point of view, there are several main factors that could cause the disease of varicose veins. Among the most important factors, it is worth mentioning heredity, hypertension, and pregnancy. Regarding the consequences caused by the disease of varicose veins, patients have clearly stated that phlebitis is an inflammation that occurs frequently. Since surgical intervention is considered an effective solution to treat vein disease, some patients have undergone surgery. Those patients who underwent surgery have been diagnosed with this disease for more than a year and belong to the age group of 56–60 years.

**Keywords:** varicose veins, risk factor, patients' knowledge, prevention.

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## INTRODUCTION

Varicose veins are stable and convoluted enlargements of the superficial veins of the lower limbs, which mostly include the two saphenous veins. Varicose veins represent a health problem that requires adequate treatment due to the fact that they can cause life-threatening complications. They affect 20%–60% of people around the world, with all the variables affecting gender, age, profession, or other factors. In the early days, varicose veins were considered more of an aesthetic problem, but today they not only damage the patient's health but also reduce the quality of life.

Depending on the stage of development and the sensitivity and personal care of the patient, the most frequent complaints are:

- Heaviness and burning pain in the pulp, especially at the end of the working day
- Itching of the skin in the areas of varicose veins
- Eczema
- Hyper-pigmentation and firmness of the skin
- Spider-shaped capillaries
- Always tired legs accompanied by muscle cramps

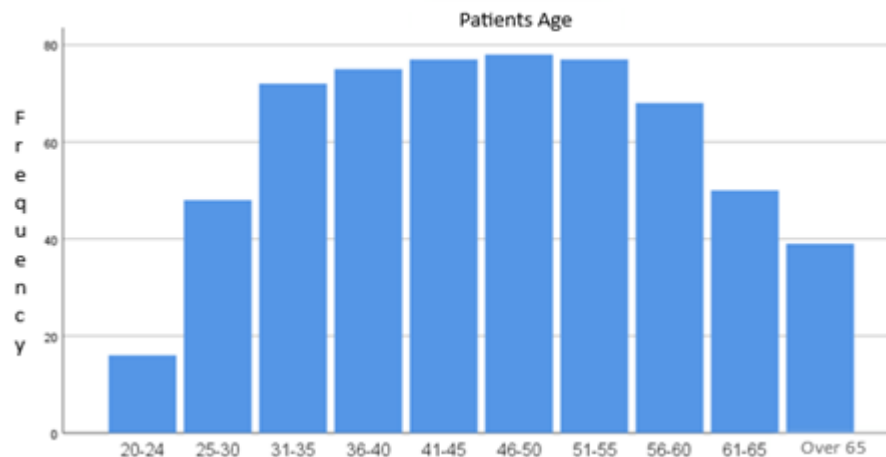
Varicose veins can manifest clinically as a limited discomfort in the legs up to edema or non-healing ulcers.

## **METHODOLOGY**

This cross-sectional study was conducted between November 2022 and February 2023 in the city of Vlore, Albania. In this cross-sectional study, we included 600 patients diagnosed with varicose veins. The patients participating in the study completed a questionnaire with questions divided into several sections. The first part belonged to questions about demographic data; the second part was related to the recognition of risk factors by sick patients; and finally, there was a section of questions related to surgical intervention for varicose veins.

## **RESULTS**

There is diversity in selected age groups. 2.7% of patients belonged to the age group of 20–24 years old. 8% were in the 25–30 age groups, while 31–35 years old made up 12% of the sample. 12.5% were 36–40 years old, and 13% were 41–45 years old. The age group of 51–55 years old made up 12.8%, and that of 56–60 years old made up 11.3%. The rest, respectively, 61–65 years old, made up 8.3% of the sample and 6.5% were those patients in the age group over 65 years old. 32.5% of the sample are males. The remaining part, 67.5%, belonged to the female gender.

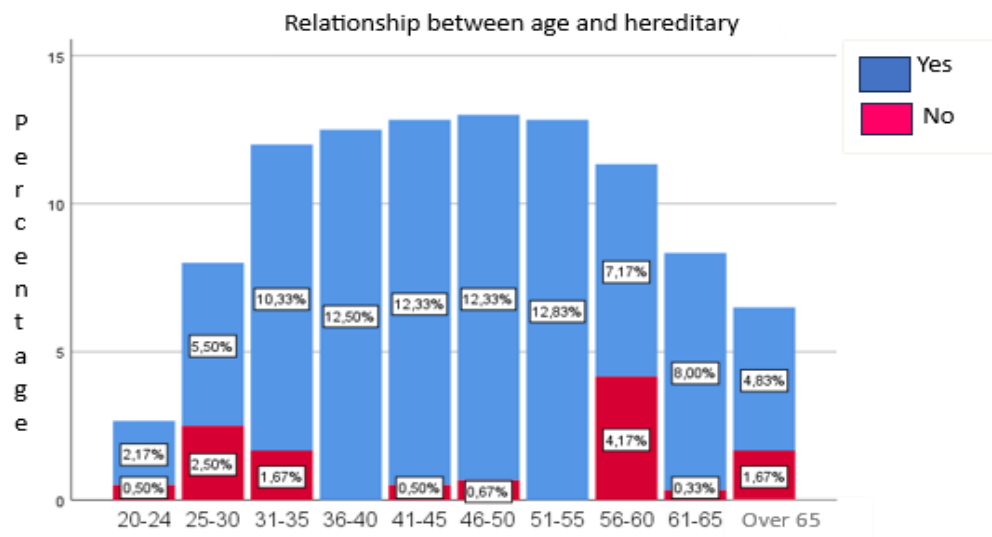


**Figure 1.** Patients Age

Patients selected to carry out this study were asked about their place of residence. From the answers received, we see that 61.8% belonged to urban areas, while 38.2% were from rural areas. According to the data collected, we see that 16.2% were single. 73% of them were married, 7.2% were divorced, and the remaining 3.7% were widows. Patients reported different educational levels. 24.3% of them claimed that they had a low level of education. 39.8% claimed that they had a secondary level of education, and the rest, 35.8%, claimed that they had a higher level of education. Patients were asked about the time when they had diagnosed the disease, and according to the results, 14.2% had less than a year and the majority, respectively, 85.8%, had more than a year.

The localization of the disease was also an issue that patients were asked about. 86.3% stated that vein disease is localized throughout the entire leg. 8% claimed that they had varicose veins in the lower part of the leg and 5.7% in the lower part of the thigh. Patients were also asked about potential causative factors for varicose vein disease.

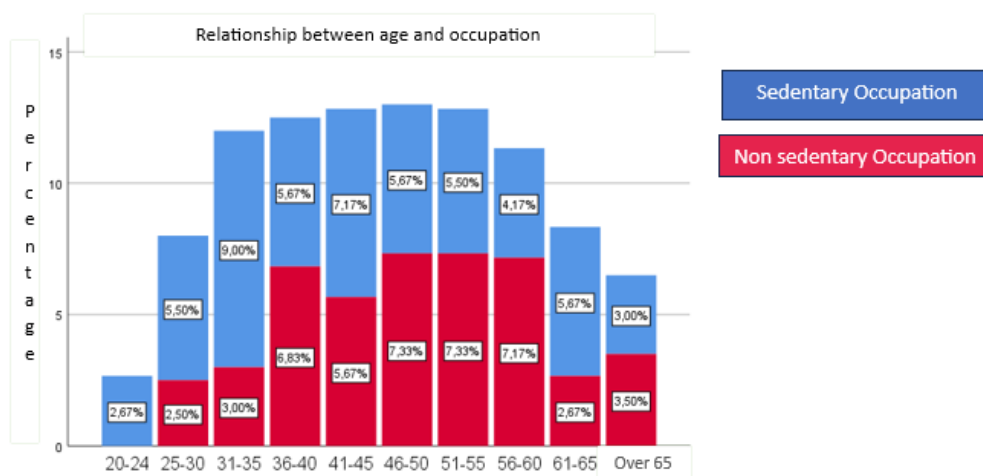
88% of the patients included in the study affirmed that heredity is an important risk factor for the development of varicose veins. From the sample, there was only 1.9% with higher education who did not consider inheritance as one factor affecting the disease. While the majority of those who did not believe in inheritance, respectively, 24.7%, had a low level of education.



**Figure 2.** Relationship between age and hereditary

In conclusion, we can say that whether heredity is considered an important factor depends on their educational level.

The patients selected in this study were asked about the type of profession they thought was a factor that could influence the disease of varicose veins. From the results, we see that 54% of them have a sedentary profession, while 46% of them have declared a non-sedentary profession.



**Figure 3.** Relations between age and occupation

Smoking is a factor that can cause the disease in 7.8% of patients, while 92.2% thought the opposite. Alcohol is seen as a cause of varicose vein disease in 15% of patients and in 85% of those who answered no. 58.2% of patients answered that arterial hypertension is considered a factor that can lead to varicose vein disease. 41.8% answered that no, they do not see it as such. The data showed that 32.5% of patients believe that diabetes affects varicose veins. 67.5% answered that no, they do not see it as a factor that has an impact. Also, the patients selected to carry out this study answered questions about the pregnancy factor. 89.5% of the sample believes that pregnancy is a factor that affects the appearance of the diseased varicose veins. Only 10.5%, which is a small percentage, think otherwise. We asked every patient if they were aware of the potential dangers associated with varicose vein disease. Phlebitis is an inflammation that occurs in 69.7% of patients. Only 30.3% said no. 84.8% of patients stated that thrombosis of varicose veins could not cause thrombosis in the lungs. Only 15.2% thought otherwise. 86.3% of patients believed and expressed that varicose veins can lead to skin changes, including dark brown skin. 13.7% of the selected group claimed no. 5.2% of patients said that venous disorders were the reason behind their leg ulcers. The other, 94.8%, said no. Regarding the question of whether they underwent a surgical intervention, there are only 30.8% of patients who stated that they underwent a surgical intervention. 69.2% have not done such a thing. Those who had undergone a surgical intervention had been diagnosed with varicose vein disease for more than a year. 43.5% of patients considered surgical intervention as a solution to their problem.

## **CONCLUSIONS**

The patients who were selected to carry out this study were all diagnosed with the disease of varicose veins. Affected were also young age groups who declared that they mainly had sedentary professions. Most of the sample had suffered from vein disease for more than a year. According to the patient's point of view, there are several main factors that could cause the disease of varicose veins. Among the most important factors, it is worth mentioning heredity, HTA pregnancy, etc.

Other factors, such as alcohol, smoking, and diabetes, have little influence on vein disease. Regarding the consequences caused by the disease of varicose veins, patients had clearly expressed that phlebitis is an inflammation that occurs frequently. Changes in skin color can also occur where a brown color dominates and becomes dark. Other consequences that have little impact are leg ulcers or pulmonary thromboembolism. Surgical intervention is considered an effective solution to treat the disease, and some patients underwent surgery. Those patients who underwent surgery have had this disease for more than one year and belong to the age group of 56–60 years.

In order to improve the health of patients with varicose veins, it is recommended to create a multidisciplinary approach. This approach should start with an increase in knowledge among the population regarding the risk factors, the clinic, the complications, or the treatment of varicose veins, because this disease is dangerous and sometimes underestimated and undertreated.

On the other hand, it is important to educate patients who suffer from this disease because simple measures significantly improve the clinical framework of varicose veins. Conservative treatment methods such as external compression, avoiding standing for long periods of time, sedentary life, maintaining an optimal weight, prevention of dyslipidemia, and keeping the affected leg in an elevated position. At the end, other treatment alternatives include interventional treatments such as external laser thermal ablation, endo-venous thermal ablation, sclerotherapy, and surgery.

## REFERENCES

- Kohno, K., Niihara, H., Hamano, T., Takeda, M., Yamasaki, M., Mizumoto, K., ... & Shiwaku, K. (2014). Standing posture at work and overweight exacerbate varicose veins: Shimane Co HRE study. *The Journal of dermatology*, 41(11), 964-968.
- Bindlish, S., Ng, J., Ghush, W., Fitch, A., & Bays, H. E. (2023). Obesity, thrombosis, venous disease, lymphatic disease, and lipedema: An obesity medicine association (OMA) clinical practice statement (CPS) 2023. *Obesity Pillars*, 8, 100092.
- Kohno, K., Niihara, H., Hamano, T., Takeda, M., Nakagawa, Y., Shiwaku, K., ... & Morita, E. (2019). J-curve association between alcohol intake and varicose veins in Japan: The Shimane CoHRE Study. *The Journal of dermatology*, 46(10), 902-906.
- Ahti, T. M., Mäkivaara, L. A., Luukkaala, T., Hakama, M., & Laurikka, J. O. (2010). Lifestyle factors and varicose veins: does cross-sectional design result in underestimate of the risk?. *Phlebology*, 25(4), 201-206.
- Ahti, T. M., Mäkivaara, L. A., Luukkaala, T., Hakama, M., & Laurikka, J. O. (2009). Effect of family history on the incidence of varicose veins: a population-based follow-up study in Finland. *Angiology*, 60(4), 487-491.
- Beebe-Dimmer, J. L., Pfeifer, J. R., Engle, J. S., & Schottenfeld, D. (2005). The epidemiology of chronic venous insufficiency and varicose veins. *Annals of epidemiology*, 15(3), 175-184.
- Jawien, A. (2003). The influence of environmental factors in chronic venous insufficiency. *Angiology*, 54(1\_suppl), S19-S31.
- Lacroix, P., Aboyans, V., Preux, P. M., Houlès, M. B., & Laskar, M. (2003). Epidemiology of venous insufficiency in an occupational population. *International angiology*, 22(2), 172.
- Branisteanu, D. E., Feodor, T., Baila, S., Mitea, I. A., & Vittos, O. (2019). Impact of chronic venous disease on quality of life: Results of vein alarm study. *Experimental and therapeutic medicine*, 17(2), 1091-1096.

- Santiago, F. (2023). Quality of Life in Chronic Venous Disease: Bridging the Gap Between Patients and Physicians. *Clinical Drug Investigation*, 1-6.
- Raetz, J., Wilson, M., & Collins, K. (2019). Varicose veins: diagnosis and treatment. *American family physician*, 99(11), 682-688.
- Gawas, M., Bains, A., Janghu, S., Kamat, P., & Chawla, P. (2022). A comprehensive review on varicose veins: preventive measures and different treatments. *Journal of the American Nutrition Association*, 41(5), 499-510.
- Goldman, M. P., Weiss, R. A., & Bergan, J. J. (1994). Diagnosis and treatment of varicose veins: a review. *Journal of the American Academy of Dermatology*, 31(3), 393-413.