

A Study on Prevalence and Risk Factors for Varicose Veins in a population

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Abstract

Background: Varicose veins are a common chronic venous disorder affecting 20 to 60% of adults worldwide. The present study was conducted to assess prevalence and risk factors for Varicose Veins in a population. **Material and methods:** This cross sectional study was conducted to assess prevalence and risk factors for Varicose Veins in a population. For the purpose of this study, varicose veins were defined as enlarged, tortuous, sub-cutaneous veins, either visible or palpable clinically with the patient standing. Data was analyzed using SPSS version 21. **Results:** The prevalence of varicose veins was found to be high in the population (72.22%). In maximum patients aging was the main risk factor for varicose veins (30.76%) followed by prolonged standing (24.35%). **Conclusion:** The present study concluded that aging, prolonged standing were significant risk factors for the development of varicose veins.

Keywords: varicose veins, sub-cutaneous veins, risk factors.

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Introduction

Varicose veins are dilated, visible and twisted venous that can appear in any part of the body where venous returns to the heart are weak, but are often seen in the lower extremities. This venous dysfunction is a common complaint affecting approximately one third of Great Britain population and is a major cause of morbidity[1]. Varicose veins (VV) is a chronic venous disease that affects the lower extremities. It is a dilation of 3 to 4 mm in diameter of the subcutaneous veins[2,3]. Several patterns of this disease exist such as reticular, telangiectasia, and trunk veins[4]. The disease can cause various symptoms such as throbbing, swelling, aching, night cramps, and leg fatigue[4,5]. High prevalence of varicose veins and its complications is an emerging problem in the 21st century, and it leads to an increase in disability and the cost of treatment[6]. Estimated prevalence of varicose veins is quite large and varies from 2% to 56% in men and 1% to 73% in women. These changes reflect the difference in population in terms of age, race, and sex, method of measurement and definition of the disease[7,8]. Varicose veins of the lower extremities are the most common conditions that impose high costs on society[9]. The present study was conducted to assess prevalence and risk factors for Varicose Veins in a population.

Material and methods

This cross sectional study was conducted in GMC Baramulla in June 2020 to assess prevalence and risk factors for Varicose Veins in a population. Adults both males and females above 25 years were included in the study. Prior to the study, information regarding the study was given to the participants and written informed consent was taken from the participants. A total 540 participants were included in the study. Participants were not included in the study if they (a) had surgeries or anesthesia within the past 6 months, (b) neurological conditions, (c) were currently pregnant or pregnant in the past year, and (d) a history of varicose veins.

For the purpose of this study, varicose veins were defined as enlarged, tortuous, sub-cutaneous veins, either visible or palpable clinically with the patient standing. Data was captured about the presence of varicose veins. No ultrasound examination was performed. Data was analyzed using SPSS version 21.

Results

The prevalence of varicose veins was found to be high in the population (72.22%). In maximum patients aging was the main risk factor for varicose veins (30.76%) followed by prolonged standing (24.35%).

Table 1: Prevalence of varicose veins

Varicose veins	N (%)
Present	390(72.22%)
Absent	150(27.77%)
Total	540(%)

Table 2: Risk factors for varicose veins

Risk factors	Presence of varicose veins N(%)
Age	120(30.76%)
Family history of varicose veins in first-degree relatives	45(11.53%)
History of thromboembolic disease	23(5.89%)
Prolonged standing	95(24.35%)
Unskilled work	47(12.05%)
Exercise less than once a week	34(8.71%)
Obesity	26(6.66%)

Discussion

In some people, varicose veins are asymptomatic, or they cause mild symptoms, but it can cause pain or itching in other people, which can have a significant effect on their quality of life. Varicose veins may become more severe over time and may lead to complications, such as skin discoloration, eczema, superficial thrombophlebitis, bleeding, loss of subcutaneous tissue, lipodermatosclerosis, or venous ulcers[10].

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Several risk factors including age, sex, family history, obesity, diet, and jobs that require prolonged standing are assumed to develop this disorder. Prevalence of varicose veins is currently more in women than in men[9,11,12].

In the present study prevalence of varicose veins was found to be high in the population (72.22%). In maximum patients aging was the main risk factor for varicose veins (30.76%) followed by prolonged standing (24.35%).

Age (OR 1.06, p=0.021) was found to be significant important risk factor for varicose veins in both sexes in this study. These results are cohort with others[13].

A family history of varicose veins in first-degree relatives also demonstrated to be a strong risk factor in our study. This finding is based on information reported by the subjects but it validates previous study based on clinical examination of relatives[14].

A study with hairdressers as an occupational group requiring prolonged standing at work also reported the association between varicose veins incidence and long hours of working in a standing position; however, the results of that study lack objectivity because they solely relied on a questionnaire survey. While the study with hairdressers found that the number of consecutive working years was directly associated with the increase in varicose veins occurrence, they could not verify an association between service years and varicose veins occurrence. This is assumed to be ascribable to the fact that the average consecutive service period (4.36 years) of the participants was not sufficient to induce the effects of occupational exposure to risk factors, especially because musculoskeletal diseases become manifest after a relatively long period of exposure to occupational risk factors[15,16].

Conclusion

The present study concluded that aging, prolonged standing were significant risk factors for the development of varicose veins.

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