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STUDY TO DETERMINE THE RISK FACTORS AND CLINICAL FEATURES OF VARICOSE VEINS

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Abstract:

Aim: *To identify risk factors and present the clinical features of varicose veins in patients.*

Material and methods: *This descriptive-observational study included 36 patients and was conducted at the department of Radiology and Surgery Unit-II of Allied Hospital Faisalabad for one-year duration from October 2019 to October 2020. After diagnosis of varicose veins, both sexes were included in the study. A detailed history was collected for diagnosis; physical examination and Doppler ultrasound were performed.*

Results: *In this study, men were more often affected than women. Mostly varicose veins were recorded in the middle age from 31 to 45 years. In most cases, the left limbs were affected, 47.22%, right limbs 41.66%, and bilateral varicose veins only in 11.11% of cases. Farmers constituted the majority of 25.0%. In most cases, 88.88% of combined symptoms were observed in patients, and the second most frequent symptom was pain, which occurred in 75.0% of cases. According to the CEAP classification of varicose veins, 50.00% of patients were in class 2.*

Conclusion: *In conclusion, prolonged standing was recognized as the most common risk factor for varicose veins. Various symptoms were often present: pain, swelling, discoloration, skin changes, and Doppler ultrasound is a very good technique for the diagnosis and operational planning of varicose veins.*

Key words: *Varicose veins, ulcer varices, Doppler ultrasound.*

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INTRODUCTION:

Varicose veins are defined as the widening of the blood vessels under the skin of the legs that has become visible, unsightly, abnormally enlarged or elongated, and knotty, tortuous, sac-like, thickened or twisted. The incidence of varicose veins is approximately 2% to 40%. Although the incidence and incidence of varicose veins has increased with age in both men and women, it appears to be more common in women than in men. Risk factors include genetic predisposition, hormonal changes and pregnancy, obesity, lifestyle, venous thrombosis, leg injuries and prolonged standing work, etc. Varicose veins remain a disease mostly in developed industrial countries, with national estimates of an incidence of between 2 and 56% in men and from 1 to 73% among women. The most commonly reported symptoms include local discomfort (pain, pain, itching and burning), generalized symptoms of the lower legs (tired legs, restless leg syndrome, heaviness, skin lesions and swelling / swelling) and cramps. Varicose veins slowly progress with distal enlargement and dilation and, if left untreated, can eventually lead to serious complications such as bleeding, thrombophlebitis, and leg ulceration (venous ulcer).

The patient's ability to treat is determined by a clinical examination to identify the source of venous insufficiency. Ideally, this examination should be followed by a Doppler ultrasound to confirm that reflux is present.

Venous disease is defined using a number of classification systems, none of which is widely accepted. Clinical Status, Etiology, Anatomical Location, Pathophysiology Classification (CEAP) is a consensus document approved by the Joint Councils of the Vascular Surgery Association and the North American International Society for Cardiovascular Surgery. The purpose of this manuscript is to establish clinical features as signs / symptoms, risk factors, diagnosis and varicose vein classification.

MATERIAL AND METHODS:

This descriptive-observational study was performed in 36 patients and was conducted at the department of Radiology and Surgery Unit-II of Allied Hospital Faisalabad for one-year duration from October 2019 to October 2020. The study included both sexes, all patients were selected after diagnosis of varicose veins. veins. For diagnosis, a detailed interview was taken with diabetes, hypertension, smoking, family history, obesity, performance of occupations, congenital, primary and secondary history of varicose veins, physical examination of patients was performed in a standing position in a hot atmosphere. the room and the distribution, size, and location of the varicose veins were recorded. The selected patient was interviewed for the multiplicity and symptoms (pelvic congestion syndromes), such as pelvic pain, pains, etc. Two-sided scanning was performed in order to accurately recognize the direction of venous and arterial flow, assess obstruction and plan varicose veins surgery. veins, etc. All risk factors, signs / symptoms, varicose-related symptoms and occupational status were recorded on the proforma. The data was analyzed in the SPSS statistical package for social sciences, version 19.0. Qualitative data (frequency and percentage) such as age (in groups), gender, limb involvement, family history, clinical examination, etc. Shown as n (%). Quantitative data (numerical variables) i.e., Age (in years) etc.

RESULTS:

A total of 36 cases were included after the diagnosis of varicose disease, all patients were selected from the outpatient clinic (OPD) and patients from departments (medicine, orthopedics and general surgery) were admitted. Men had 61.11% more varicose veins compared to women 38.88% in this study. Most of the cases were in the age group 31-45 years, and the second most common age group in this study was in the range 46-60 years, with the left limbs being 47.22% in most cases and the right limbs 41.66%. while bilateral varicose veins were found only in 11.11% of cases, on the basis of professional status, farmers were mostly 25.0%, whereas cooks 16.66%, housewives 13.88%, workers 19.44%, teachers 08, 33% and the rest 16.66%. in people carrying out various combined jobs. (Figure 1)

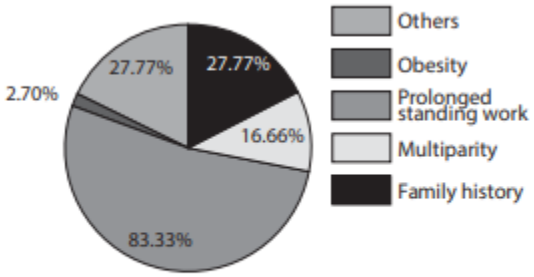

Figure 1: *Risk factors of the patients (n= 36)*

Figure 1: Risk factors of the patients (n= 36)

In the results of this study, the most common risk factor was long-term work in a standing position 83.33% of the respondents, family history in 27.77%, women with a multiple of 16.66%, obesity was found only in 2.70% of cases, and others. who participated in multiple points such as hypertension, diabetics, smokers etc. accounted for 27.77%. (Table 1)

Table 1: Base line characteristics of the patients (n=36)

Characteristics	Frequency	Percentage
Age Groups		
< 15	00	00.00%
16 – 30	07	19.44%
31 – 45	15	41.66%
46 – 60	11	30.55%
> 60	03	08.33%
Gendr		
Male	22	61.11%
Female	14	38.88%
Occupational Status		
Farmer	09	25.00%
Cooks	06	16.66%
House wife	05	13.88%
Laborer	07	19.44%
Teacher	03	08.33%
Others(many work performer)	06	16.66%
Limb Envolvement		
Right	15	41.66%
Left	17	47.22%
Bilateral	04	11.11%

In this study, in the majority of cases with complex symptoms 88.88%, pain was present in 75.0%, patients with edema - 33.33%, ulcers - only 8.0%, eczema - in 27.77% of cases, and pigmentation was present. in 30.55% of cases according to the CEAP classification of varicose veins, 50.00% of patients were in class 2, 36.12% in class 3, and 13.88% in class 4, while in class 5 and 6 0% of patients were in the study. (Table 2)

Table 2: Presenting features of patients (n=36)

Features	Frequency	Percentage
Symptoms		
Pain	27	75.00%
Swelling	12	33.33%
Ulcer	03	08.33%
Eczema	10	27.77%
Pigmentation	11	30.55%
Combined symptoms	32	88.88%
CEAP Classification		
2	18	50.00%
3	13	36.12%
4	05	13.88%
5	00	00.00%
6	00	00.00%
Duplex Findings		
Perforator	09	25.00%
Sphenofemoral junction	15	41.66%
Sphenopoplitial junction	04	11.11%
Combined findings	23	63.88%

DISCUSSION:

In this study, men had 61.11% more varicose veins compared to women 38.88%, with the majority of cases from the 31 to 45 age group, with the second most common age group from 46 to 60 years. Similar results were obtained in a study by Pramod Mirgi et al, which found that men were more affected by varicose veins than women, with the most common age group between 21 and 30 years old, another study found that women were mostly women than men. The left limbs were found in the majority of cases 47.22%, and the right limbs 41.66%, and bilateral varicose veins only in 11.11% of the cases in this study. According to the study by Fanilda Souto Barros et al. In patients with varicose veins on the right - 37.8%, in patients with left-sided varicose veins 41.7%, and in patients with bilateral varices in 45.2% of cases.

By occupational status, farmers were mostly 25.0%, while cooks, housewives, laborers, teachers and others who did various combined jobs were usually involved. Similar results were obtained in the above-mentioned study by Pramod Mirji et al. In his study, farmers and housewives were most affected. In the results of this study, the most common risk factor was long-term work in standing position 83.33% of patients, family history concerned 27.77%, several studies reported that family history is the most common risk factor for varicose veins. A comparative Japanese study also found 42% of family history of varicose veins. Laurikka et al. Found that polyclinic is a common risk factor for varicose veins and found that 16.66% of patients with polycystic disease were obese in only 2.70% of cases and 27 others who were involved in many diabetics, smokers etc. 77%. Similar results have been obtained in several studies.

In the present study, in the majority of cases with complex symptoms 88.88%, pain was present in 75.0%, in the study by Eun Jue Yi et al. Pain was observed in 67.5% of cases. 33.33% of patients with edema, ulcers occurred only in 8.0%, eczema was found in 27.77% of cases, and pigmentation was observed in 30.55% of cases. Similar results were obtained in an Indian and other study. The majority of patients in this study were CEAP class 2 and 3 patients, including patients with varicose veins alone and patients with limb edema, which is comparable to the studies by Stuart WP et al., 24 and Mirji P et al. Series, while the same results were observed in the study by Kompally GR et al. Duplex ultrasound as a perforator was diagnosed in 25.0%, a wedge-femoral connection in 41.7%, a wedge-femoral connection in 11.12%, and combined in 63.88% of cases.

CONCLUSION:

We concluded that varicose veins were common in middle-aged men, and prolonged standing work was the most common risk factor for varicose veins. The most common symptoms were pain, swelling, pigmentation, and skin lesions. Doppler ultrasonography is a very good diagnostic and planning technique for varicose veins.

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