ASSOCIATION OF AGE AND GENDER WITH THE LEVEL OF FUNTIONAL ACTIVITIES IN PATIENTS WITH VARICOSE VEINS

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Abstract-
Objectives: To identify the association of age & gender with the level of functional activities in patient with varicose veins.
Methodology: Cross sectional observational study in which data was collected from different hospitals.197 patients diagnosed with varicose veins & who fulfill eligibility criteria, outcome measures tool was international physical activity questionnaire (IPAQ).
Results: Total number of participants was 197. Out of which, 110(55.8%) participants were male and 87(44.2%) participants were female. Mean age was 38.5127 ± 8.71230 Minimum age of participants was 20 years and maximum age was 53 years. Out of 197 participants, 48(24.4%) were low physical activity, 112(56.9%) were moderate physical activity, and 37(18.8%) were high physical activity that there is significant association of age with the level of functional activities in patients with varicose veins. And p value is .043 and there is no association of gender with the level of functional activities in patients with varicose veins with the p value is .493 in this research.
Conclusion: it is concluded that there is definite association of age with the level of functional activities in patients with varicose veins & there is no significance association of gender with level of functional activity in patients with varicose.
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Index Terms- Varicose Vein, level of functional activity, age and gender

I. INTRODUCTION

Varicose veins are a kind of venous insufficiency characterized by dilated, elongated, or convoluted veins produced by a loss of valvular effectiveness over time. Venous hypertension, reflux, and complete dilatation ensue from the destruction of venous valves in the axial veins, resulting in varicosities and fluid transudation into subcutaneous tissue. (1) Many jobs standing for long periods of time. Long-term standing jobs include health specialists, retailers, store assistants, industrial person, and flight attendants, hairdressers, tailors, and security guards. People who work in jobs that require them to stand for long periods of time often remain upright for more than eight hours. (2)

The Clinical, Etiological, Anatomical, and Pathological CEAP classification divides varicose veins into seven clinical stages, ranging from C0 to C6, and is abbreviated as Clinical, Etiological, Anatomical, and Pathological Elements. (3) There are no visible signs of venous illness at the C0 stage. The C1 stage is characterized by telangiectasia or reticular veins. The second stage is C2, which is characterized by prominent dilated veins. The third stage is C3, which is marked by edema. (4) The fourth stage is C4a, which is marked by pigmentation or eczema. The sixth is C4b, which is characterized by lip dermatosclerosis or atrophied Blanche. Ulcer is treated in the sixth C5 stage and active in the seventh C6 stage. (5)
The stage from fifth to sixth C4–6 is characterized by chronic venous insufficiency and displays the sophisticated nature of the condition. The clinical stage of venous disease (6). Venous leg ulcers are open lesions that develop as a result of venous illness in the knee and ankle joints (7). When 60 to 80 percent of a patient's leg ulcers are present, varicose veins are more likely to develop. (8) The prevalence of venous leg ulcers ranges from 0.18 percent to 1%. (9) Over the age of 65, the incidence rises to 4%. (10) Chronic venous leg ulcers are defined as ulcers that last longer than 6 weeks on average. (11) Ulcers are most common in the final stages of chronic venous diseases including varicose veins and lip dermatosclerosis. (11) The vein walls will dilate at initially, the valves will become ineffective, and the pump reflexes will be disrupted. There may be both primary and secondary alterations. The primary modifies the structure of the vales, which may cause them to leak, while the secondary changes the pump reflexes in the vein walls. As a result of the structural disturbance and focal dilatation in the vein walls, substantial disruption ensues, and reflux occurs as an epiphenomenon. Varicose veins can be induced by factors such as prolonged standing or increased venous lining stress caused by obesity. such as an increase in barrier stress caused by venous hypertension or fluid fluctuations. (12) Ulcer testing can be done based on the location, size, features, kind of exudate, appearance, infection indications, ulcer smell, and discomfort. All of this aids in the detection of ulcers in varicose veins. (13) This study is not conducted before or published in literature on association of age & gender with level of functional activity in varicose veins. This study will play an informative role

in the prevention of the disease by perform the physical activities in daily life.

IPAQ	Category 1=low physical activity	Category 2=moderate physical activity		Category 3=high physical activity	Total	P value
Gender	Male	26	61	23	110	.49
	Female	22	51	14	87	
Total	48	112		37	197	
Age	Young adults	12	42	17	71	.043
	Middle adults	36	70	20	126	
Total		48	112	37	197	

II. MATERIALS AND METHODS

Data for this research is collected from different hospitals such as Combine Military Hospital, Shalimar, and Sir Ganga Ram hospital different clinics etc. The research was conducted after the approval of HOD with the ethical letter no. (USA/HS/2022/629) from University of South Asia, Lahore. A cross-sectional observational study design was used with 197 participants calculated from rao software. Non-probability convenience sampling technique was used. The selected participants were be questioned to ensure that they met the inclusion criteria of the study. Inclusion Criteria was 18 to 53 years of age young adults & middle adults, Referred from physician (pre diagnosed varicose vein) both Male & Female. Patients with deep vein thrombosis of calf or thigh veins, and peripheral arterial disease at the time of study and patients with past surgical intervention for varicose vein was excluded. An informed questionnaire IPAQ was used in this study. Prior to filling questionnaire an informed consent was taken by the patients. Questionnaire was deal with patient's demographic data consisted of patient age, gender, occupation and consists of functional activities, Categorical Score- three levels of physical activity are proposed low, moderate, high. All the data was analyzed through SPSS version 23. Descriptive categorical data were measured by frequency tables and charts. Descriptive continuous data was measured by histograms. (14)

III. RESULTS

Total number of participants was 197. Out of which, 110(55.8%) participants was male and 87(44.2%) participants was female. Mean age was 38.5127 ± 8.71230 Minimum age of participants was 20 years and maximum age was 53 years. The mean weight of the participants was 76.5178 ± 9.70672 kg. Minimum weight of participants was 51 kg and maximum weight was 99 kg. The frequency of the healthy participants was 22(11.2%), 93(47.2%) participants was overweight, 78(39.6%) was obese, 4(2.0%) participants was severely obese. The percentage of overweight participants was more than healthy, obese, severe obese.

41 (20.8 %) participants were housewives, 95 (48.2%) participants were office workers/teacher, 45 (22.8%) participants were guards, 16 (8.1%) participants N/A were no occupation. The ratio of Office worker/teachers is more than other occupation. participants were standing for 1 hour, 46(23.4) participants were standing for 4 hour, 46(23.4%) participants were standing for 8 hour, 55(27.9%) participants were standing for 12 hour, 24(12.2%) participants were N/A. 98(49.7%) were diagnosed between 6 months-1 year and 99(50.3%) were diagnosed between 2 year – 4 years. 102(51.8%) participants was systemic disorder, and 95(48.2%) participants was not systemic disorder. The ratio of participants who have systemic disorder is more.Out of 197 participants, 48(24.4%) were low physical activity, 112(56.9%) were moderate physical activity, and 37(18.8%) were high physical activity that there is significant association of age with the level of functional activities in patients with varicose veins. And p value is .043 and there is no association of gender with the level of functional activities in patients with varicose veins with the p value is .493 in this research. Table 1 shows the total number of participants was 197. Out of which, 110(55.8%) was male participants and 87(44.2%) was female participants. Mean age was 38.5127 ± 8.71230 .Minimum age of participants was 20 years and maximum age was 53 years. Out of 197 participants, 48(24.4%) were low physical activity, 112(56.9%) were moderate physical activity, and 37(18.8%) were low physical activity p value is .043 which is lesser than 0.05 means that there is significant association of age with the level of physical activity in patients with varicose veins. and there is no association of gender with the level of physical activities in patients with varicose veins and the p value is 492 in this research

Table1: Association of age and gender with the level of functional activities in patients with varicose veins.

IV. DISCUSSION

The current study find out that there is association of age with the level of functional activities in patients with varicose veins. There is no association of gender with the level of functional activities in patients with varicose veins.

Saher G. Aly 2020.showed that the data was collected through an interview questionnaire and a clinical examination .which was used to determine the varicose veins and the risk factors associated with them among women.(15) In contrast the current study collected the data through manual forms and sample size 197. Age group of past study was 15-55 years with the reproductive. Whereas the current study was based on age group 18-53 years. The previous study include 231 female participants with reproductive age who attended El-Nahda center in Cairo's El-Salam medical district, who were randomly selected. Dissimilarly we included both male and female participants (15). Regarding

previous study the individuals had a significant prevalence of leg varicose veins, and the risk of varicose veins increased with age, extended standing, hypertension, having a family history of varicosities, and a lack of regular physical activity.Ultimate conclusion of current study that there is also an association of age with the level of functional activities in patients with varicose veins and there is no association of gender with the level of functional activities in patients with varicose veins.

Kiloater H 2021 Evaluation of physical activity level and exercise capacity in patients with varicose veins and chronic venous insufficiency (16). In current study we associate the age and gender with the level of functional activities in patients with varicose veins. Previous study comprised 51 participants male 13 (25.49%) and female 38 (74.51%) (16). In current study197 participants out which, male participants was 110(55.8%) and female participants was 87(44.2%). This shows that the ratio of male participants was more than female participants. In past study the participant's pain severity was assessed by the visual analog scale (VAS) and exercise capacity was assessed by 6-minute walk test (6MWT). International Physical Activity Questionnaire (IPAQ) was used to assess the level of physical activity. (16) In current study we were not collected data according to CEAP classification. Similarly in current study IPAQ questionnaire was used. In past study the VAS during activity was significantly higher. The 6MWT distance, distance %, IPAQ total score and IPAQ walking score were significantly higher ($p<0.05$) .In current study total number of participants was 197, out of which 48(24.4%) participants were low physical activity, 112(56.9%) participants were moderate physical activity, and 37(18.8%) participants were high physical activity. Limitations include our study include short duration of time for data collection. We are not collect data according to the ceap classification. In future researchers can include only the patients of varicose veins without any systemic disorder. We suggest in future, the work should be with greater number of participants and the study should be for longer duration of time.

V. CONCLUSION

This study concluded that there is definite association of age with the level of functional activity in patients with varicose veins. There is no significance association of gender with level of functional activity in patients with varicose.

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