



Short Communication

Therapeutic effect of yoga therapy on varicose vein - A research study

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Abstract

A varicose vein is one of the serious global problems affecting the workplace in every nation. Extensive research on varicose veins reveals that the KSRP working lifestyle is one of the few top places to experience the high intensity of varicose veins levels to their employees. The preventive, curative, and promotive aspects of yoga are applied in the form of yoga therapy as natural healthcare measures for effective varicose vein management in the workplace and lifestyle.

Keywords: Yoga Therapy, Varicose Veins, KSRP employees.

Introduction

Varicosity in the veins is caused by valve incompetence. Lower limb veins are specially designed with those valves to prevent blood backflow during venous return to the heart¹. This condition is common in people who stand for long periods, such as police officers and housewives, as well as those who put more pressure on their legs while working, such as tailors². Varicose veins are classified as SiraVikriti (venous disorder) in Ayurvedic literature and are referred to as Sirakautilya or Kutilsira. It is caused by worsened Vata dosha and is associated with Siragranthi (Granthi means protruded nodule-like structure and Sira signifies³).

According to various vascular disease study publications, varicose veins afflict 15-20 percent of the population in India. This illness affects four times as many women as it does men. Varicose veins are more common in those who work in jobs that require them to stand or sit for long periods. The higher prevalence is due to a lack of preventive practices¹. Varicose veins are usually primary (affecting just the superficial veins) and are caused by a congenital or familial predisposition for the vein wall to become less flexible⁴. Deep veins are affected by secondary varicosities that form when the valves are damaged by trauma, blockage, or inflammation.

Although they can develop anywhere on the body, varicose veins most frequently occur in the legs and feet. Although they can cause annoyance and discomfort, they are virtually usually unharmed⁵.

If varicose veins are not treated promptly, complications such as chronic venous insufficiency may develop. Because venous stasis and damage can induce superficial phlebitis, which can spread through perforating arteries and into the deep venous system, patients with varicose veins are more susceptible to developing deep vein thrombosis.

Definition: The Latin term varicosis, which means dilated, is where the name varicose originates. The term varicose veins is used by Arnoldi to describe clearly visible, dilated, tortuous, and possibly prominent subcutaneous veins of the lower extremities, varicose veins secondary to loss of valvular efficiency, Veins with a saccular dilatation which is often tortuous, and Vein with a saccular dilatation which is often tortuous. Variations in the definition of varicose veins have resulted in large disparities in the incidence reported in the literature⁶.

Signs and Symptoms: Varicose vein signs and symptoms, Dark blue blood vessels those are prominent, especially in the legs and feet. Aching pain or tenderness along a vein's course. Legs that get tired quickly. Heaviness in the legs⁷. Leg swelling Skin discoloration (in severe cases). Leg numbness Itching or irritability in the legs. Sensations of burning. Cramps at night. Pigmentation. Tolerance should be practiced⁸.

Etiology: Valve mechanisms in the legs' varicose vein-prone veins only function in the antigravity orientation. The blood does not go up to the heart of these valves and becomes weak, increasing strain on the superficial veins⁹. The superficial veins under the skin grow weak and seem dilated as a result of pressure from the blood pools being pulled downward by gravity¹⁰. The color of the may alter as a consequence of ulcers and bleeding that develops as their walls enlarge as a result of increasing pressure.

Why do varicose veins usually appear in the legs? Varicose veins are most frequently found in the legs because of gravity, body weight pressure, and the need to transport blood from the lower body to the heart. Leg veins work the hardest to get blood back to your heart of all the veins¹¹. They are the ones that are under the greatest amount of strain.

Yogic Practices: Yogic Practices are particularly useful in the treatment of varicose veins, reducing symptoms and, in some circumstances, restoring valve function¹². The importance of all inverted asanas cannot be overstated. They allow pooled blood to drain back to the heart, allowing injured veins to re-establish their normal diameters and promoting valvular competence¹³. Because the pumping system is inefficient and weak, we performed asanas that stretch the muscles of the legs while training and improving the muscular pump¹⁴.

Methodology

Ethical Clearance was obtained from the Committee on Institutional Human Ethics for randomized control trials. The

study design consisted of the experimental group (n=28) and control groups (n=28). A yoga therapy session of 60 minutes was introduced as an intervention for the 90 days regular employees of KSRP 7th battalion (Karnataka State Revers Police) Assaigoli, Mangalore, the subjects of this research. Both groups were subjected to pre and post-test using the perceived questionnaires and Doppler Ultrasound test.

Results and discussion

When compared to the control group, 90 days of Yoga Intervention resulted in significant changes in the score of the perceived parameters of the questioner and the doppler ultrasound test in the experiment group (p<0.001).

Table-1: The following set of yogic practices was carried out.

Asana	Pranayama	Relaxation technique
Swastikasana - 10 Time Breathing	Ujjayi Pranayama - 21 Round	Savasana 1 - 5 Minutes
Tadasana 1 & 2 - 10 Time Breathing	Anuloma – Viloma - 21 Round	Savasana 2 - 5 Minutes
Trikonasana - 10 Time Breathing	Bhastrika Pranayama - 5 round	
Parsvakonasana - 10 Time Breathing		
Pavanamuktasana - 15 Time Breathing		
Bhujangasana - 05 Time Breathing		
Dhanurasana - 05 Time Breathing		
Viparitakarani- 25 Time Breathing		
Halasana - 05 Time Breathing		
Uttanapadasana - 05 Time Breathing		

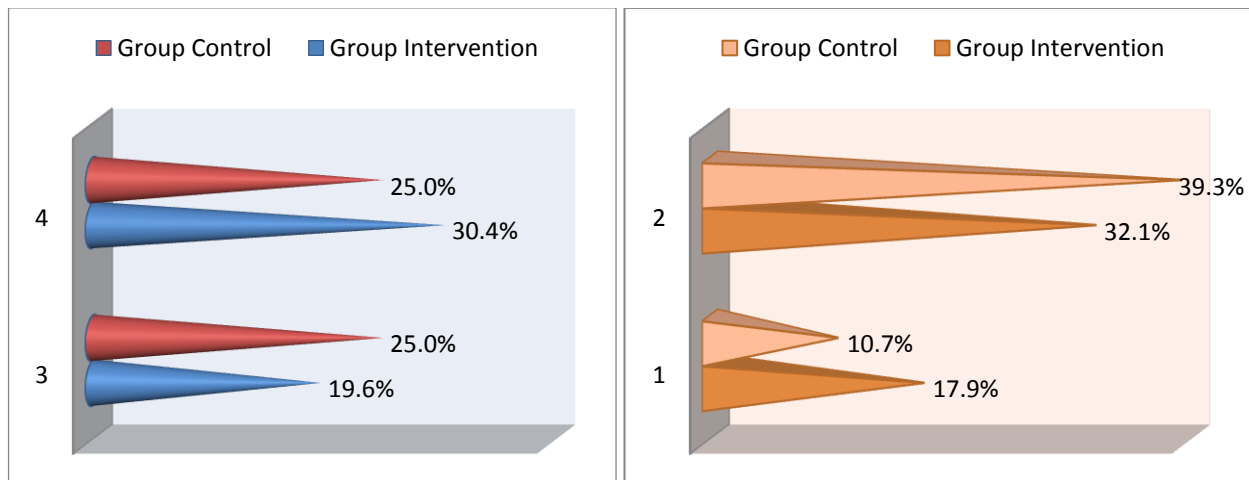


Figure-1: Patient Symptoms.

Table-2: Patient Symptoms.

Intervention	N	Percentiles			p-value
		25 th	50 th (Median)	75 th	
Pre-Score for Itching	28	2.00	2.00	3.00	0.001 (Significant)
Post Score for Itching	28	1.00	1.50	2.00	
Pre-Score for S. Discoloration	28	1.00	2.00	2.75	0.000 (Significant)
Post Score for S. Discoloration	28	1.00	1.50	2.00	
Pre-Score for Skin Rash	28	1.00	2.00	2.00	0.048 (Significant)
Post Score for Skin Rash	28	1.00	1.50	2.00	
Pre-Score for Phlebitis	28	2.00	2.00	2.00	0.000 (Significant)
Post Score for Phlebitis	28	1.00	1.50	2.00	
Pre-Score for Anxiety	28	1.00	1.00	2.00	0.285 (Not Significant)
Post Score for Anxiety	28	1.00	1.50	2.00	
Pre-Score for Swelling	28	2.00	3.00	3.00	0.000 (Significant)
Post Score for Swelling	28	1.00	1.50	2.00	
Pre-Score for Aching	28	2.00	3.00	3.00	0.013 (Significant)
Post Score for Aching	28	1.00	1.50	2.00	
Pre-Score for Night Cramps	28	3.00	3.00	3.00	0.001 (Significant)
Post Score for Night Cramps	28	1.00	1.50	2.00	
Pre-Score for Pain	28	2.00	2.00	2.00	0.808 (Not Significant)
Post Score for Pain	28	1.00	1.50	2.00	

Conclusion

Depending on the results obtained, it can be concluded that regular yogic practices can improve the muscular pumping action, thereby improving the venous return to the heart. Regular yogic practices for a longer duration will cure the problem of varicose veins, and hence these practices can be effectively used therapeutically. Varicose veins occur due to occupations like police personnel, tailors, farmers, etc. Yogic practices can be given as a preventive measure to improve valvular efficiency. Yoga Therapy is effective for varicose veins management among KSRP employees. This will be of great help in the promotion of workforce Wellness and productivity in the KSRP working sector.

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