Research Paper

Volume : 4 | Issue : 6 | June 2015 • ISSN No 2277 - 8179

Signs and Symptoms of Varicose Veins Among Security Guards

Nursing

KEYWORDS : signs, symptoms, varicose veins, security guards

Kakani Renitha — MSc Nursing Student, Manipal College of Nursing, Manipal University, Manipal, Karnatak State. India

Shashidhara Y N — Associate Professor, Community Health Nursing Department, Manipal College of Nursing, Manipal University, Manipal. Karnataka, India

*** Malathi G Nayak** — Assistant Professor (Sr. Scale) in Community Health Nursing Department, Manipal College of Nursing, Manipal University, Manipal. Karnataka, India. *Corresponding Author

ABSTRACT

Introduction: The people who are involved with prolonged sitting or standing in their day to day activities tend to have an increased risk for varicose veins. The objective of the study was to identify the symptoms of varicose veins among security guards.

Methods: A cross sectional study was done among 150 security guards working in Udupi district with a minimum one year of service as security guard was included in the study. Samples were selected by systematic random sampling. Interview and observational method was used to identify the symptoms.

Results: Out of 150 security guards, 6% (9) had pain in the legs always, 7.3% (11) had burning sensation, 15.3% (23) had ankle swelling, 11.3% (17) had heavy feeling in legs, 18.7% (28) had skin discoloration in the legs, 20% (30) had the change in skin integrity, 9.3% (14) had the feeling of pain though the remedial measures are taken, 10% (15) had the feeling of pain worsening, 13.3% (20) had the itching around one or more veins, 16.7% (25) had ulcer, 19.3% (29) had eczema, 14.7 % (22) had tingling sensation always.

Conclusion: The present study aimed at identifying the symptoms of varicose veins among the security guards. According to the findings of the study, security guards are vulnerable for varicose veins, influenced by the factors like hours of work, BMI, alcohol consumption.

Introduction:

The people who are involved in prolonged sitting or standing during their daily activities are prone for developing varicose veins; the reason is the same for the security guards, who are as a part of their profession need to stand for prolonged periods, placing them at the highest risk of developing varicose veins.

Varic is a Latin word means swelling. Varix means enlarged tortuous vein. Varicose veins are the common vein disorders which are enlarged veins. Veins move blood from body to heart. When the valves in the veins weaken, they allow blood to flow backward and pool in the veins. Varicose veins are common, which affect 60% of Americans. In many cases, varicose veins cause some cosmetic problem and also cause pain and discomfort[1].

The risk factors like overweight, heavy lifting, and pregnancy increase the chances of developing varicose veins. Age, menopause, genetic weaknesses in the vein walls or low fiber diet also causes an increase in straining during bowel movements also increase the risk for developing varicose veins.[2]

As per the census of WHO (2007), 2% of the western population have varicose vein, women have 3-4 times more than men. Varicose veins are least found in Eastern population. Statistics as per the country for prevalence of varicose veins is 45 per 1000. It was found approximately one in 22 for U S A. In India the varicose vein show an effect on one out of 2 people aged 50 years. In Bangalore about 3-5% of the total population suffer from venous problems, of which 10% of population has varicose veins.[3]

A study result shows that, 15 to 20 per cent of the population in India is suffering from varicose vein disease. Women suffer from this disease four times more than men. It was found that most of the occupations and professions have come where in a person is required to constantly stand for long time or sit with legs hanging down. The Computer professionals, Nurses, Receptionists, Security guards, Traffic policemen, Salesmen, Teachers and persons doing Desk jobs are most prevalent sufferers of varicose veins.[4]

Though there is high prevalence of varicose veins in India, very few studies have been conducted in India among security guards. Researcher personally has observed that most of the security guards were unaware of varicose veins and also not diagnosed. Hence, the researcher felt the need to assess the symptoms and risk factors of varicose veins among security guards

Materials and methods:

A descriptive survey was done among 150 security guards aged above 18 years. Data were collected from security guards those who have more than one year work experience and willing to participate in the study. Data collected by using pre tested structured interview technique after obtaining permission from the respective area supervisors. Informed consent was taken from the participants. Systematic random sampling was used to select the security guards.

All the tools were validated and tool found reliable. The tools used were Demographic Proforma, Self reported symptoms of varicose veins, and observation check-list of varicose veins. The demographic proforma was designed to collect the background information of the subjects. It consists of 13 items which include age, gender, years of experience, and hours of work, area of work, meat intake, type of food, shift change, source of information regarding varicose veins. The items did not had any scoring as they were meant to collect the factual information.

Tool on Self reported symptoms of varicose veins was designed to collect the information regarding the self reported symptoms of varicose veins among the security guards. It consists of 13 items which were leg pain, burning or itching sensation in legs, leg or ankle swelling, heavy feeling in legs, skin discoloration in legs, change in skin integrity, ulcers, pain not relieved though medication is taken, itching around one or more vein, skin eczema, tingling sensation in the legs. This tool had three components which are always, sometimes and never. The subjects were asked to answer the questions. The items have an individual scoring where always-3, sometimes-2, and never-1.

Observation check-list to assess the varicose veins among them was designed to assess the signs of varicose veins. It consists of 14 items which consists of items like veins are tender to touch,

dilated tortuous veins, elevated temperature on palpation of vein, ulcers, skin scars, eczema, ankle swelling, paler areas over healed ulcer, brownish yellow shiny skin near affected veins. These items are assessed using the options of yes or no. These items were observed by the researcher along with them height, weight, BMI, Blood pressure were also measured.

Results:

Statistical Package for Social Sciences (SPSS 16.0) software was used for statistical analysis of raw data. The result shows that out of 150 security guards, 66.7% were belongs to the age group of 18-29 years, 77.3% were males, 59.3% were unmarried, 52.7% had secondary education, and 92.7% consume non-vegetarian diet. Most of the sample (60%) consume meat once a week, 98.7% had 1-10 years of work experience, 100% samples were working for 12 hours per day, 44.7% walk during their duty time, 85.3% have not been hospitalized for varicose veins, 84.7% had not got any information regarding the varicose veins (table 1 - 4).

Description of self reported symptoms of varicose veins: Out of 150 security guards, 6% (9) had pain in the legs always, 7.3% (11) had burning sensation, 15.3% (23) had ankle swelling, 11.3% (17) had heavy feeling in legs, 18.7% (28) had skin discoloration in the legs, 20% (30) had change in skin integrity, 9.3% (14) had feeling of pain though the remedial measures are taken, 10% (15) had feeling of pain worsening, 13.3% (20) had itching around one or more veins, 16.7% (25) had ulcer, 19.3% (29) had eczema, 14.7 % (22) had tingling sensation always (Table 5 -6 & Fig 1- 5).

Description of sample on signs of varicose veins as per observational check list: out of 150 sample, 6% (9) had veins which are tender to touch, 6% (9) had tortuous dilated veins, 36% (54) had ulcer on the legs, 43.3% (65) had skin scars on legs, 36.67% (55) had eczema on their legs, 35.33% (53) had ankle swelling during clinical examination(Table 7).

Discussion:

The findings of the present study shows that out of 150 sample, few of them had the symptoms of varicose veins, of them 6% had pain in the legs always, 15.3% had swelling, 11.3 % had heavy feeling always, 13.3% had itching in vein always. Similar findings support the findings of another cross sectional study conducted by Bradbury A, Evans C, Allan P, Lee A, Ruckey CV, Fowlkes FGR among all the desk job professionals and the workers whose job is involved in prolonged sitting and standing are also involved. The results showed that lower limb symptom such as heaviness or tension (54.7%), swelling (24.6%), aching (63.1%), restless legs (49.6%), cramps (45.5%), and itching (38%).

Conclusion:

The present study aimed at identifying the symptoms of varicose veins among the security guards. According to findings of the study, security guards are vulnerable for varicose veins, influenced by the factors like hours of work, BMI, alcohol consumption. Further studies are required to provide some interventional to security guards as a preventive care.

Table 1: Frequency and percentage distribution of demographic variables. n-150

Sample characteristics	f	%
Age in years		
18-29	100	66.7
30-41	26	17.3
42-53	24	16.0
Gender		
Female	34	22.7
Male	116	77.3
Marital status		
Married	57	38
Unmarried	89	59.3
Widow/widower	4	2.7

Table 2: Frequency and percentage distribution of sample based on sample characteristics (Contd…)

Sample characteristics	f	%
Educational status		
Illiterate	1	0.7
Primary	15	10
Secondary	79	52.7
PUC	36	24.0
Degree	5	3.3
Post graduation	14	9.3
Type of food		
Vegetarian	11	7.3
Non vegetarian	139	92.7

Table 3: Frequency and percentage distribution of sample based on sample characteristics (Contd…)

Sample characteristics	f	%
Meat intake in a week		
Daily	7	4.7
Once a week	90	60
Twice a week	25	16.5
Thrice a week	15	10
More than four times	7	4.7
Never	6	4
Total experience as security guard		
1-10	148	98.7
11-20	1	0.7
20-31	0	0
31-40	1	0.7
Area of work		
Colleges	68	45.3
Hospitals	3	2.0
Hostels	73	48.7
Banks and ATM centers	1	0.7
Others	5	3.3
Total hours of work		
12 hours	150	100
Posture during work		
Sitting	29	19.3
Standing	54	36
Walking	67	44.7

Volume : 4 | Issue : 6 | June 2015 • ISSN No 2277 - 8179

Table 4: Frequency and percentage distribution of sample based on sample characteristics (Contd....)

Sample characteristics		
	f	%
Shift change		
Weekly	150	100
History of hospitalization due to varicose veins		
Yes	22	14.7
No	128	85.3
Source of information regarding varicose veins		
Family members	8	5.3
Friends and peers	2	1.3
Health care personnel	13	8.7
Nil	127	84.7

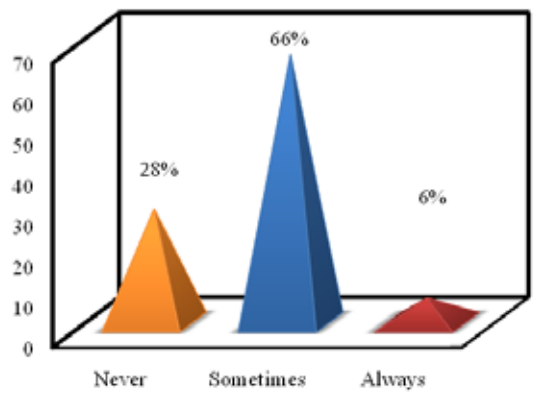

Fig 1: Representing the pain in lower extremities

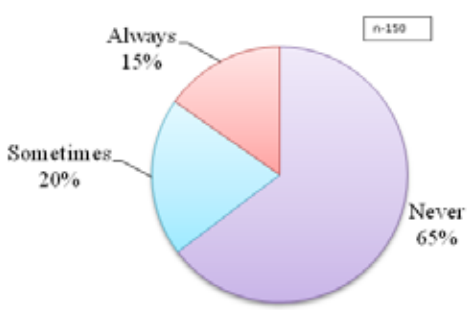

Fig: 2 Representing ankle swelling

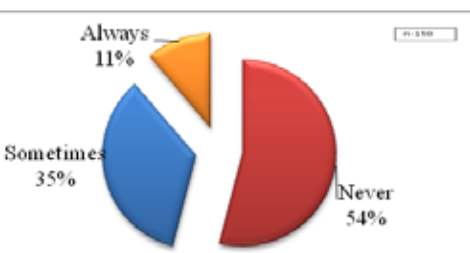

Fig 3: Representing heavy feeling in legs

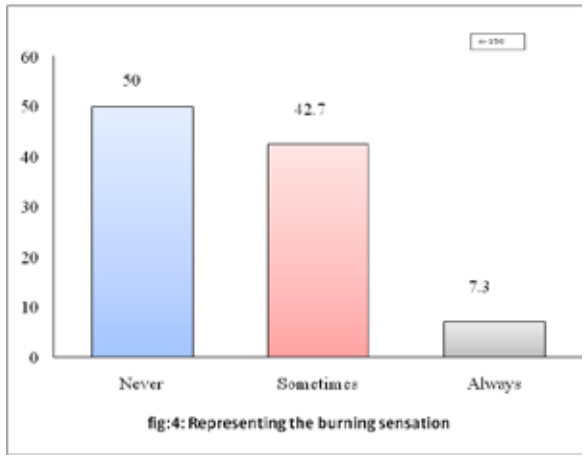

fig: 4: Representing the burning sensation

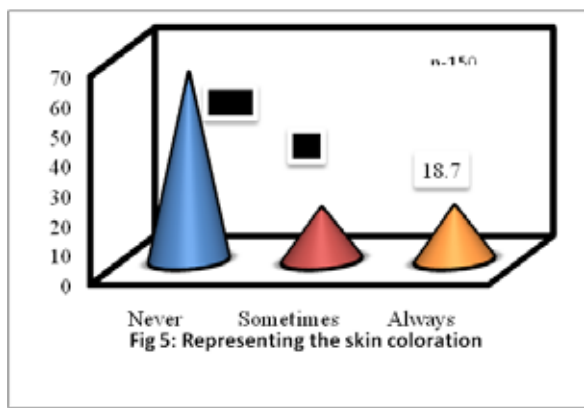

Fig 5: Representing the skin coloration

Table 5: Frequency and percentage distribution of symptoms based on sample characteristics

Symptoms	Study group	
	f	%
Open wounds		
Never	100	66.7
Sometimes	23	15.3
Always	27	18
Pain not relieved		
Never	85	56.7
Sometimes	51	34
Always	14	9.3
Pain worsens in work		
Never	54	36
Sometimes	81	54
Always	15	10

Table 6: Frequency and percentage distribution of symptoms based on sample characteristics

Symptoms	Study group	
	f	%
Itching around vein		
Never	91	60.7
Sometimes	39	26
Always	20	13.3
Ulcer		
Never	96	64
Sometimes	29	19.3
Always	25	16.7
Eczema		
Never	95	63.3
Sometimes	26	17.3
Always	29	19.3

Symptoms	Study group	
	f	%
Tingling sensation		
Never	48	32
Sometimes	80	53.3
Always	22	14.7

Table 7: Frequency percentage distribution of signs of varicose veins

Sl. No	Signs observed	Yes		No	
		f	%	f	%
1	Veins are tender to touch	9	6	141	94
2	Tortuous dilated veins	9	6	141	94
3	Ulcer on legs	54	36	96	64
4	Skin scars	65	43.3	85	56.7
5	Eczema	55	36.67	95	63.3
6	Ankle swelling	53	35.33	97	64.7

REFERENCE

1) Douglas, WS, Simpson NB. The Guidelines for the management of chronic venous leg ulceration report of a multidisciplinary workshop. British Association of Dermatologists and the research unit of the Royal college physicians: 1995 | 2) Black J.M. and Jacobes. Luckman & Sorensons Medical Surgical Nursing. 4th Edition. Philadelphia: W.B. Suanders Company: 2000. | 3) Benjamin W Van Voorhees. Mayo foundation for Medical Education and Research.(2007) January 22. http:// www.Medline.com | 4) Standing problem Hazards 91, August 2005. | 5) Bradbury A, Evans C, Allan P, Lee A, Ruckley CV, Fowkes FGR. Edinburgh vein study cross sectional population survey. BMJ 1999 Jun 15; 318(6):318-53. | 6) Park K. Textbook of preventive and social medicine.21th edition. M/S BanarsidasBhanot Publishers: Jabalpur: India; 2011. |