Saphenous Varicose Veins in the Kenyan Population

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Abstract

Lower extremity venous insufficiency is a common condition and increases with age. In addition to classical symptoms, it may result in skin changes and venous ulcers. This disease has a great impact on the patients' quality of life and is associated with considerable health care costs. We assessed the age distribution, mode of presentation and management of saphenous varicose veins in a Christian Mission Hospital in Kenya. Forty adult patients (26 females and 14 males) with a diagnosis saphenous varicose vein at PCEA Kikuyu Hospital were evaluated. The patients' biodata, presenting complains, investigations, management and outcome were noted. The data collected was analyzed for means and variances using the SPSS version 17 for Windows and represented using charts and graphs. Most varicosities were bilateral and affected both the thighs and legs. Six patients were pregnant while 15% of the patients presented with venous ulcers. Most (90%) ulcers were found in the elderly patients. Saphenous varicose veins are common in the Kenyan population. Lack of adequate public education predisposes the elderly in the community to late presentation of saphenous varicose veins with ulcers.

Key words: *Saphenous; varicose veins; Kenya*

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Introduction

Saphenous varicose veins are as old as Hippocrates (Bremer & Moll, 2010). They are the most common manifestation of chronic venous diseases encountered in clinical practice with a life prevalence of 40% and account for substantial morbidity and healthcare costs (Evans et al. 1999; Caggiati et al. 2006).This condition affects all age groups with a female preponderance (Callam, 1993; Engelhorn et al. 2010). Other risk factors for development of saphenous varicose veins include increased estradiol and deep venous thrombosis (Kendler et al. 2010). Although the aetiology of varicose veins remains unknown, recent studies have focused on endothelial cell integrity, cellular hypoxia which ultimately progress to perforator incompetency and occlusion of the deep veins and valvular incompetency (Porter et al. 1995; Ghaderian et al. 2010). Clinically they present with a range of symptoms varying from asymptomatic, dilated veins, dermatitis to venous ulcers and other complications (Richardson & Dixon, 1977). At present, the gold standard treatment of varicose veins is still surgical ligation and stripping of the insufficient vein (Bremer & Moll, 2010; Brar et al. 2010). While this condition is common worldwide, it is hardly reported in Kenya. The gender and age distribution, management and outcome of this condition in Kenya are also unknown. This study undertakes to document the age, site, gender prevalence management and outcome of saphenous varicose veins among Kenyans attending a district hospital.

Patients and Methods

This was a retrospective study done at PCEA Kikuyu hospital – a level IV district hospital in Kenya. Ethical approval for the study was granted by the Hospital's Ethics and Research Committee.

All patients' records for patients seen in the hospital presenting with Saphenous varicose veins between January and December 2009 were reviewed. The patients' records were retrieved, divided into male and female, and then into age groups of 20 years. Each group was analyzed for presenting complains investigation, co-morbidities, management and outcome. Risk factors co-morbidities evaluated included pregnancy, chronic coughing conditions and sedentary lifestyles. Data were analyzed using SPSS version 17.0 for Windows and is presented in tables, and bar charts.

Results

Twenty six females (65%) and fourteen males (35%) were assessed. Half of the patients were over 40 years of age (table 1). Sixty percent of the varicosities were found in both the legs and thigh region while only 40% of the patients had varicosities in the legs region alone. Twenty eight patients (70%) had more than one dilated vein in the lower limb, while the rest had a single varicosity. None of the patients had any other comorbid varicosity in the body apart from saphenous varicosity.

Most (65%) of the patients presented with dilated elongated tortuous veins. Other patients had dermatitis and venous ulcers (Figure 1). Ulcers were common in the elderly (Table 1). Comorbid conditions associated with the varicose veins included pregnancy and chronic cough (Table 2).

Doppler scans were done in 14 patients (31%). Most (42.8%) of the patients with the scans, had perforator incompetence (Fig 2). Only two patients had a venogram done.

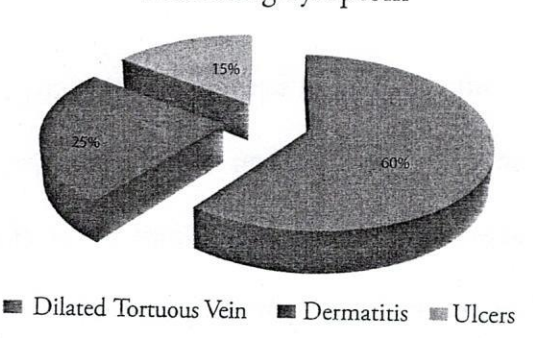

Fig 1: Presentation of Saphenous Varicose Veins.

Table 1: Crosstab age versus presenting symptoms

Age group	Dilated tortous veins	Dermatitis	Ulcers
0-20	0	4	0
21-40	12	4	0
>41	12	4	4

Table 2: A table showing age group vs comorbid condition

Age group	None	Diabetes mellitus	Hypertension	DVT	Pregnancy	Chronic Cough	TOTAL
0 -20	2	0	0	0	2	0	4
21-40	12	0	0	0	4	0	16
>40	8	4	2	4	0	2	20
TOTAL	22	4	2	4	6	2	40

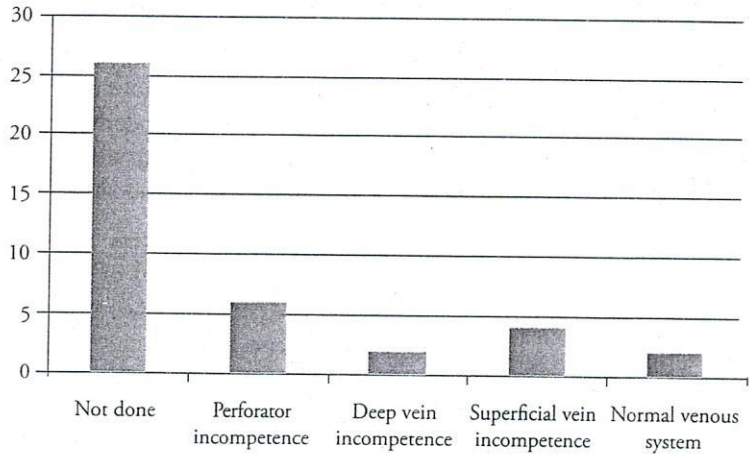

Fig 2: Doppler scan of the lower limbs

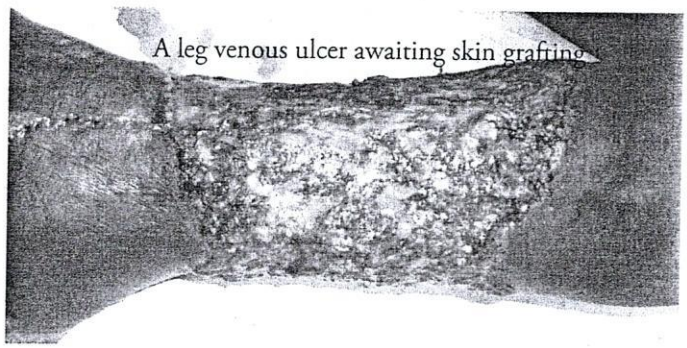

Figure 3: A complicated venous ulcer in the leg

Management and Outcome

All the patients had medical treatment with behavioral change. Treatment modalities included pressure stockings (28 patients), sclerotherapy (6 patients) and surgery (8 patients). Surgical methods used included; stripping (4 patients), ligation (2 patients), ulcer debridement and skin grafting (2 patients).

There was loss of follow up of 30 patients. Ten patients who were followed up didn't have recurrence or any other complications.

Discussion

Most (60%) of the patients in the present study had dilated tortuous veins, although varicose veins are often asymptomatic in most cases (Langer et al. 2005). The other described symptoms of varicose veins include; aching, cramping, itching, fatigue and swelling (Langer et al. 2005). Elderly patients however unusually presented with late symptoms such as venous ulcers. In the natural history of varicose veins, swellings progress with subsequent dermatitis, thrombophlebitis, ulceration and bleeding (Hoare et al. 1982). Disease progression is thought to be related to the duration of the varicose veins and the extent of valvular reflux, not the age of the patient (Caggiati et al. 2006). The elderly patients with ulcers must have presented late in the course of the condition.

In concurrence with the observations made by Ghaderian (2010), DVT and pregnancy were among the cormorbid conditions of the patients with varicose veins in the present survey. A vast majority (55%) of the patients did not have other cormobid conditions. With increasing age, patients also manifested with diabetes mellitus and

hypertension. Although the preferred investigations for the varicose veins are the non-invasive doppler scan or the invasive venography (Ramalet, 2002), most of our patients didn't have venography or doppler scan. This oversight does not guide the proper management of the disease. The high cost of the venography and Doppler ultrasound may have hampered their routine use in evaluating lower limb venous diseases in our set up.

To improve symptoms and appearance, treatment for primary varicose veins includes conservative measures such as leg elevation and compression stockings, as well as various forms of sclerotherapy and surgery (Galland et al. 1998; Ramalet 2002; Labropoulos et al. 1994; Tisi & Beverly 2002; MacKenzie et al. 2002). Remarkably our patients benefitted from all the possible therapy modalities, with only eight patients ending up at surgery. Murad (2011) supports the conservative management of varicose veins in place of surgery. We unfortunately lost follow up of most of our patients, so we could not accurately ascertain the recurrence rate of the condition following the different therapeutic options. In other settings, it has been noted that traditional surgical techniques are associated with recurrence rates of at least 20 % (Porter et al.1995).

Conclusion

Saphenous varicose veins are common among Kenyans. Elderly patients often present with late symptoms such as venous ulcers. Public education about saphenous varicose veins will reduce the chances of complications associated with prolonged symptoms.

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