Patterns of peripheral vascular diseases at Muhimbili National hospital, Da es Salaam

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Summary

Background: Vascular diseases are emerging as a major health burden worldwide and vascular surgery is the major treatment of choice for these diseases. The treatment results in cosmetic and functional improvement. Purpose of the report is to show the commonly seen peripheral vascular disorders and treatment options offered at Muhimbili National hospital.

Methods: Between September 2003 and October 2007 a total of 154 patients with different vascular diseases (excluding intra- cranial conditions) were attended at Muhimbili National hospital. The age of the patient ranged from 11 to ≥55 years. The Sex, possible causes, surgical treatments offered and outcome were evaluated.

Results: A total of 154 patients were studied. The average age of the patients was 35 years, 58 being females and 96 being males. The Patients were either self-referred or referred from district or regional hospitals. Majority had varicose veins, athero- or arterio-sclerosis, deep venous thrombosis, abdominal aortic aneurysm, post-traumatic arterial pseudo-aneurysms and congenital arterial-venous malformations. Few cases of thrombo-angiitis obliterans (Buerger's diseases) and HIV- vasculitis. A total of 97 patients (63%) were surgically treated.

Conclusion: Shortage of vascular surgeons and facilities in our Country needs to be sorted out to save life to these patients with vascular disorders.

Key Words: Peripheral Vascular Diseases, and Shortage of Vascular Services in Tanzania.

Introduction

Peripheral vascular diseases(all vessels away from the thoracic cavity) are emerging as a major health problem world wide.[1] Vascular disease treatments are widely performed in developed countries and very limited done in developing countries including Tanzania. The major cause of limited treatment is shortage of vascular surgeons and facilities both diagnostic and therapeutic. The end result of this shortage is high number of morbidities and mortalities among patients with these conditions. Despite the Government efforts to refer some of these patients abroad for treatment, yet it cannot manage to refer all and early for treatment. This paper tries to show the patterns of peripheral vascular disorders as seen at Muhimbili National Hospital in terms of age, sex, causes, treatment options and outcome of disease process to the patients or affected organ.

Patients and Methods

This was a four years prospective descriptive study based on data from patients managed by the authors at outpatient and in-patient surgical units at Muhimbili National Hospital, Dar es Salaam from September 2003 to October 2007. All patients diagnosed as having peripheral vascular disease by clinical examination, Doppler scan, venography and arteriography were included with the exclusion of diabetic feet patients. Clinical data was obtained from the patients and this included age and sex of the patient, clinical examination and the necessary available investigations as well as the type of treatment offered to the patient were recorded. Analysis of data was done manually.

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Results

A total of 154 patients were seen and treated for peripheral vascular diseases by the authors in the period of 4 years. Some of these had surgery of different type, while others had sclerotherapy and conservative treatment only. Three patients died (2 due to ruptured abdominal aortic aneurysm and 1 due to ruptured left carotid artery aneurysm). Patients with deep venous thrombosis were treated with different medications depending on the stage of the condition at hospital presentation. Generally, those with acute stage were started on heparin lower molecular weight and then shifted to Warfarin tablets as maintenance, those who had stayed longer with DVT and their Doppler scan reports showed venous recanalisation were put on junior Aspirin tablets 75mg twice daily for 6-8 weeks. A detailed distribution of these cases is shown in the tables

Table 1. Age and Sex distribution of the patients

Age(Years)	Sex		No. of patients
	MALE	FEMALE	
11 – 20	6	4	10
21 – 30	10	8	18
31 – 40	29	12	41
41 – 50	20	24	44
>, 51	31	10	41
Total	**96**	**58**	**154**

Table 2. Distribution of cases by types of peripheral vascular diseases

Vascular diseases	Sex			%
	Male	Female		
• **Varicose veins**	**29**	**12**	**41**	**26.6**
▪ Deep venous thrombosis	5	16	21	13.6
• Arterio-venous malformation	8	7	15	9.7
▪ Athero/arteriosclerosis	26	9	35	22.7
▪ Aneurysms	12	10	22	14.3
▪ Haemangioma	16	4	20	13.1
Total	**96**	**58**	**154**	**100%**

Table 3 (a): Distribution of treatment options given to patients with peripheral vascular diseases.

Diagnosis	Treatment	Number of Patients	%
VENOUS Varicose Veins and Haemangioma	Vein stripping	24	39.3
	Sclerotherapy	16	26.2
	Excision	4	6.6
	Conservative	15	24.6
	Referred	2	3.3.
Total		**61**	**100%**

Table 3 (b)

Diagnosis	Treatment	Number of Patients	%
Arterial	Limb amputations and disarticulation	42	45.2
	Aneurysm repair	11	11.8
	Conservative	8	8.6
	Referred	22	23.7
	Lost to follow up	7	7.5
	Died	3	3.2.
Total		**93**	**100**

Discussion

Peripheral vascular disease is an emerging major health burden worldwide. [1] Peripheral arterial occlusive disease is common among elderly patients, affecting almost 10% of men by the age of 65 and 20% of men and women who are 75 years of age old.[2] In this study the big number of patients was between 40 and ≥ 51 years old, majority being males than females. However, the age of onset differs from other studies[2, 3,4,5,6] in sense that, patients in this study have early age of onset (i.e. from 40 years onwards) compared to 60 years and above in other studies.

No clear reason(s) as to why our patients have early onset of peripheral vascular diseases despite being in poor country compared to western countries further studies are needed to establish the possible causes. A total number of 154 patients were studied between September 2003 and October 2007. These are data from only one hospital but it shows a significant number of patients with this condition.

Common peripheral vascular diseases are atherosclerosis of arteries and have multiple contributing causes. Atherosclerosis is the most common cause of morbidity and mortality in the Western world.[(2)] In this study atherosclerosis has 35 patients (22.7%) which is lower compared to varicose veins, which has a total of 41 patients (26.6%). This is similar to other studies in terms of occurrence of peripheral vascular diseases.[(2,3,4)] Varicose veins are common affecting millions of people and account for a significant volume of activity in any vascular clinic, however may be merely lifestyle – limiting hence have received less attention. In this study a big number of patients with varicose veins were attended and majoritywere treated surgically to correct their pathologies 24 patients (39.3%). This also could be a small number because these are the only patient who were referred or presented to our clinics at a referral hospital. It is possible that, many patients up country and in the village have varicose veins and have not presented themselves to medical care or services. There is a need to have a wide or multicentric study of such a problem Country wide.

Treatment of peripheral arterial diseases comprises of percutaneous transluminal angioplasty, stenting, by-pass and grafting in Western world.[(, 2, 3,4,5,6)] This is different, compared to our setting where by diagnostic (tests like Duplex and MRI angiography) and treatment facilities are not available. Hence majority of our patients underwent amputations because had gangrene of the limbs. Amputations have got economical implications to the patient, hospital and the Government at large.

It is of great importance to have diagnostic facilities and training more vascular surgeons so as to save the lives of these patients. Majority of aneurysm which were operated were post traumatic and majority were aneurysms of the lower limbs, but those which were referred were more of abdominal aortic aneurysms. In this study it is not known what happened to the seven patients (7) who were lost to follow up but is could either be due to financial constraints such that these patients could not manage to come for treatment or they died or disappointed due to lack of facilities.

It is shown in this study that 22 patients (23.7%) were referred abroad for treatment, majority had abdominal aortic aneurysm and few had arterio-venous malformation. However, not all this patients managed to go abroad on time for treatment due to Government financial constraints hence making their disease worse and even others dying before being attended or treated abroad. With these findings a need for facilities and vascular Surgeons training is paramount.

Conclusion

Shortage of vascular disease facilities and surgeons in our Country needs to be sorted out to save lives to these patients.

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