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A Retrospective Study on Superficial Venous Aneurysms

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Abstract: *Phlebectasia, the term used to describe an abnormal saccular or fusiform dilatation of a vein whereas varix strictly implies simple tortuosity of veins. The lower extremities are most commonly involved with the most frequent being Long saphenous vein. They may be misdiagnosed as subcutaneous masses, femoral hernia etc. A retrospective study was conducted starting from January 2009 to September 2016 in our hospital. 15 patients were reported and treated during the period of study. The data about the patients have been collected from medical records department and calculations were based on standard statistical methods. Venous colour Doppler was used to diagnose the disease. Surgical excision were performed in all patients. To conclude, venous aneurysms are seen in patients of any age, equally in both sexes and also not less common in upper extremities*

Keywords: *colour Doppler, phlebectasia, venous aneurysm*

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I. Introduction

Venous aneurysms are rare lesions that have been described throughout the venous system and are seen at any age. Phlebectasia, the term used to describe an abnormal saccular or fusiform dilatation of a vein whereas varix strictly implies simple tortuosity of veins. The internal jugular system is quite constant in its formation, so developmental anomalies such as phlebectasia are rare. However, variations may often occur in the external jugular system and its branches the literature of the past century contains more descriptions of dilated cervical veins than the recent surgical literature. However venous aneurysms in cervical veins can occur in wind pipe blowers, trumpet players etc. Even though the natural history of these venous aneurysms are benign, a localized widening or bulging of a vein, where the vein wall is weakened may rupture. Indications of surgery is mostly cosmetic and occasionally localized pain, management being total excision and sclerotherapy. Superficial venous aneurysm of upper extremity or neck is rare in clinical practice. Even though venous Colour Doppler is the most useful diagnostic tool, MR angiography may be helpful in some cases to identify the extension of aneurysm

II. Methods

A retrospective study was conducted starting from January 2009 to September 2016 in our hospital. 15 patients were reported and treated during the period of study. The data about the patients have been collected from medical records department and calculations were based on standard statistical methods.

III. Results

Out of 15, 8 patients are males, one male child and 6 are females. Although venous aneurysms of the upper extremity is rare, 11 out of 15 cases have been reported in our study. Even though trauma accounted as etiology, only 2 patients had trauma history. 4 patients presented following complication of AV fistula. Other aneurysms were diagnosed insidiously. The results were listed in table 1. Venous colour Doppler was used in all cases to clinch the diagnosis. Surgical excision was done in all cases. Recurrence was noted in one case.

Table: 1

Site		Numbers
Neck		4
Upper limb	Forearm.	2
	Dorsum of hand.	1
	A-V fistula site.	4
Lower limb	Sapheno-femoral junction.	2
	Below knee.	1
	Dorsum of foot.	1

FIGURE 1: venous aneurysm neck

FIGURE: 2 MRI showing extend of aneurysm

FIGURE 3: aneurysm in hand

FIGURE 4: intraoperative finding

IV. **Discussion**

Venous aneurysms can be classified as primary and secondary. Superficial and deep venous systems are involved. A primary venous aneurysm is best defined as solitary area of venous dilatation containing all three layers of vein wall that communicates with a main vein through a single channel and must have no association with an arterio-venous communication or pseudoaneurym. The secondary venous aneurysm is caused by trauma, infection, venous valve insufficiency or by an A-V fistula which is due to increase in venous flow. Primary venous aneurysm are less common that have been reported to occur in most major veins. Giltepse et al -77% of venous aneurysm was located in the lower extremities was located in lower extremities (57% in deep venous system, 10% in upper extremities, 13% external jugular vein). In comparison with superficial venous aneurysm, deep venous aneurysms are common in neck and upper extremities compared to lower extremities. Most superficial venous aneurysms were misdiagnosed as subcutaneous soft tissue tumours, lymph node, and varicose vein haemangioma. The aetiology of venous aneurysm remains undefined. They can be congenital or acquired secondary to trauma, inflammation, degenerative changes in vessel wall due to increased pressure within the vascular system. Schartz and fine believed endophlebohypertrophy to be an important factor in development of venous aneurysm in which there is early hypertrophy of vein wall followed by dilatation and sclerosis. There may be congenital weakness or degenerative changes in the vessel wall due to connective tissue alteration. There may be proximal obstruction of venous flow leading to dilatation. Parscarella et al suggested that the aneurysmal dilatation was shaped by the reflux flow that strike the venous wall and produces a vortex of turbulent flow. But it differs from the deep vein involvement which may be due to intrinsic vein wall weakness. There is no evidence of any link between venous and arterial aneurysms.

The overall primary pathologic etiology is likely to be flow related phenomenon or local degenerative process in other settings. The histologic findings of aneurysms are varying degree of thinning of vessel wall with loss of smooth muscle layer, vein wall fragmentation alternating with smooth cell, degeneration of elastin and replacement with a fibrous layer as well as deficiency and distribution of the architecture of the elastic layer. Aneurysm in deep venous system is the site of deep venous system. In most cases ultrasonography was the first imaging technique as it is noninvasive and the lesion appears as anechoic cystic structure. Colour Doppler shows vascular nature of the mass and any connections to venous circulation with the identification of the

thrombus which provides help in planning surgery. CT Angiogram/ MR Angiogram reveals more accurate size and extent of the lesion. Indications for surgery in case of superficial venous aneurysms are the presence of symptoms, potential thrombus formation and cosmetic reasons. Surgical procedure consist mainly of total excision. Simple aneurysms are usually well managed by simple ligation and excision. Small saphenous vein aneurysms are treated by endovenous LASER. In some cases injection of sclerosing agents like sodium tetradecyl sulphate will be useful. In conclusion venous aneurysms should be included in differential diagnosis of subcutaneous mass.

References

[1]. Venous aneurysm – nov 1997 volume 26 1880 5 page 845-852 – present north annual meeting of American venous forum san Antonio pez Feb 20-24 1997 – david gilespie-MD RVT
[2]. Superficial venous aneurysm Ho yun lee MD what lee MD J.ultrasound med 2006 771-776
[3]. Management of symptomatic venous aneurysm scientific world journal gatrilli 2012 article ID 386478
[4]. L.gillespie J. L.villavicencio C Gallagher etal presentation and management of venous aneurysm. Journal of vascular surgery vol 28 no.5 845-852 1997
[5]. Jugular vein aneurysm – vascular 2008 ; 16(5) 291-294
[6]. Venous aneurysm 173-174,1062-1063 Rutherfords vascular surger 7th Edition Cronenwelt and Johnson

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