

Venous Aneurysms – A neglected pathology

Short Communication

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Abstract: Venous aneurysms are not often recognised nor given importance due to the more serious and challenging nature of their arterial counterpart. They are uncommon entities that generally present as a painless swelling, can be accurately diagnosed by duplex venous scanning and are completely cured by surgical excision. We present a short report of 14 cases treated at a tertiary care centre in India over seven years from June 2001 to June 2008, to increase awareness of this easily treatable condition.

Keywords: *Venous aneurysms • Diagnosis • Venous duplex • Surgical excision*

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1. Introduction

Venous aneurysms reportedly occur in most major veins, and are seen at any age with equal distribution between the sexes. They are often misdiagnosed as soft tissue masses in the neck, as inguinal or femoral hernias in the lower limbs, or as ganglions in the distal upper extremities [1].

This purpose of this study is to increase awareness among surgeons and show that venous aneurysms can be accurately diagnosed with a venous duplex and cured by surgical excision.

2. Methods and Results

The clinical profiles of patients who presented to our tertiary centre with venous aneurysms from June 2001 to June 2008 were studied. There were a total of 14 patients (male-8; female-6) with a mean age of 37 years (age: 19-51). Twelve venous aneurysms were located in the neck in relation to the external or anterior jugular vein while two were located in the cubital fossa in relation to the basilic vein. All cases presented with a slow growing, painless, nonpulsatile, compressible swelling which became prominent with the valsalva manoeuvre (Figures: 1 and 2) or depending on position. None had skin changes, neurovascular deficits, oral pathology or a history of trauma.

Figure 1. Venous aneurysm along the right external jugular vein.



The diagnosis in all cases was confirmed by a venous duplex which showed focal dilatation of the involved vein with or without the presence of an echogenic thrombus and venous flow visible through the vessel.

All cases were treated with a complete surgical excision, with no intra- or post-operative complications. The biopsies in all cases were consistent with venous aneurysms.

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Figure 2. Increase in size of the aneurysm with the valsalva manoeuvre.



3. Discussion

A venous aneurysm is best described as a solitary area of venous dilation that communicates with a main venous structure by a single channel; it must have no association with an arteriovenous communication or a pseudoaneurysm. Most importantly, it should not be contained within a segment of varicose vein [1]. Two commonly reported pathologic findings are a reduction of smooth muscle cells and an increase in fibrous connective tissue, both of which were seen in varying degrees in our cases.

Venous aneurysms most frequently involve veins of the lower limbs and the neck [1-3]. Veins in the abdomen [3] and upper extremities [4] are also commonly affected. In our series all except two cases were located in the neck.

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A wide variety of clinical presentations of venous aneurysms are reported in literature [2]. Typically, a venous aneurysm is bluish, compressible, shrinks on elevation, lies on a vein, and has no pulsation or bruit. They may rarely present initially as an episode of deep vein thrombosis or pulmonary thromboembolism [3]. Quite often they are mistaken for soft tissue masses with or without pain. Making a correct diagnosis of venous aneurysm can be difficult. The aneurysm becomes incompressible and does not diminish in size on elevation after thrombosis occurs, and this makes diagnosis more challenging.

Duplex ultrasonography is often used for the assessment of venous aneurysms [2,4] and is sufficient. Occasionally phlebography, MRI and CT scans may be used when the diagnosis is difficult.

Surgery forms the mainstay of treatment and is done for cosmetic purposes [5], to alleviate pain and to prevent life threatening complications such as pulmonary thromboembolism [1]. Observation is seldom encouraged and its role is controversial in literature. Most of them can be treated with ligation and excision. Reconstruction or bypass is often required for abdominal or lower limb aneurysm.

In conclusion, venous aneurysms are unusual and often misdiagnosed vascular malformations. A venous duplex is the investigation method of choice. It is curable through surgery in the form of ligation and excision with or without grafting/reconstruction.