Acquired venous aneurysms

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A case is reported of acquired venous aneurysms in the superficial forearm veins of an oarsman. The aetiology, presentation and complications are discussed.

Keywords: Venous aneurysm, athletic injury

Case report

A 29-year-old male oarsman presented with a 7-year history of two gradually enlarging swellings on the dorsum of his right forearm. They occasionally ached, especially during physical training, and had been variously diagnosed as ganglion cysts and lipomata.

On careful questioning it was noted that they enlarged during exercise and with the arm dependent, and disappeared with the arm elevated. He denied previous trauma to the area and associated their appearance with his rowing activities. Being a keen oarsman, he had rowed at least five times a week for the previous 10 years. This involves gripping the oar and performing a repeated flexion and extension at the wrist joint against a load, over 1000 times each outing. Physical examination revealed an otherwise extremely fit man with two soft fluctuant 2×3 cm and 3×4 cm swellings on the dorsum of his right forearm (*Figure 1*). The diagnosis of venous aneurysms was made. Venography was considered unnecessary.

At operation, under general anaesthesia, the tributary veins leading into the aneurysms were ligated and divided, and the aneurysms were excised. Histology revealed thin-walled venous aneurysms but with no specific histological features. He remains well and asymptomatic 4 months later.

Discussion

Venous aneurysms can be defined as abnormal saccular dilatations of veins characterized histologically by an increase in fibrous connective tissue in the vein wall. They were first described by Harris in 1928¹ and are rare. An extensive literature search reveals under 50 reported cases. The most common

Figure 1. Two soft swellings on the forearm, diagnosed as venous aneurysms

site is the popliteal vein, but saphenous, portal, splenic, superior vena caval, cephalic, facial, jugular, iliac, subclavian and renal vein aneurysms have been described. They may occur at any age (5 months to 75 years) and there appears to be an equal sex distribution. Several authors consider them to be congenital in origin, whilst others feel they are secondary to factors such as high venous pressure, blunt and penetrating injury, or stretch injury. Traumatic venous aneurysms are very rare. They have been reported after blunt injury in a hockey player², penetrating injury (dog bite) in a racquet player³, and after orthopaedic procedures⁴, intravenous cannulation⁵, and in the venous limb of an arteriovenous fistula for haemodialysis⁶.

In the case we describe, repeated stretch injury and increased venous pressure due to gripping are likely to have been causative factors.

Venous aneurysms may present directly as soft tissue swellings, or as a result of their complications. Popliteal venous aneurysms most commonly present after thromboembolism⁷⁻¹¹, but pulmonary emboli have not been reported from other sites. Unlike arterial aneurysms, rupture is rare and only two cases have been described^{12,13}. Surgical excision as described here is the usual treatment for venous aneurysms causing pain and cosmetic deformity, but excision should always be considered because of the potential complications.

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