SHORT REPORT

Internal Jugular Vein Aneurysm: A Case Report

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A true aneurysm is defined as a localised permanent dilatation of all layers in a vessel wall. The commonest aneurysms are that of arteries, however, venous aneurysms are also described. These are relatively rare but should not be overlooked as they may result in significant symptoms including swelling, pain and embolism. This is a case report of a lady who presented with a swelling on the right hand side of her neck which proved to be a internal jugular vein aneurysm.

Keywords: Internal jugular vein aneurysm; Embolism; Sternoclavicular joint.

Case Report

A 71-year-old lady was referred to the Sheffield Vascular Institute with a one-month history of a painful swelling on the right side of her sternoclavicular joint. She described a husky voice, particularly worse in the morning. There was no history of trauma.

She was an ex smoker, who suffered from Chronic Obstructive Airway Disease, asthma and reflux oesophagitis, requiring regular inhalers and a PPI.

Examination of the neck confirmed a tender swelling above the right sternoclavicular joint. Nil else of note was detected.

Ultrasound examination initially revealed no abnormality, with the internal jugular vein being measured at 1.5 cm. However, CT confirmed aneurysmal dilatation and tortuosity of the right internal jugular vein, with a maximum diameter of 3 cm (Figs. 1 and 2). On the left internal jugular vein, there was evidence of an intra-luminal thrombus for a whole length of the vein. There was no evidence of a thrombus in the aneurysm.

Due to the presence of a contra lateral thrombus, the potential morbidity of operating on the infra-thoracic extension of the aneurysm, and after discussion with the patient, it was decided to manage the aneurysm conservatively.

Discussion

There have been descriptions of internal jugular vein aneurysms in children;¹ however, to the authors’ knowledge, there is no description in the literature of an atraumatic aneurysm of in the internal jugular vein in this age group. Primary venous aneurysms are extremely rare, with only 311 cases described up until 1992;² the first report being by Harris in 1928,³ who described it as a congenital venous cyst of the superior vena cava system in a 5 month old child.⁴

There have been numerous hypotheses placed about the origin of atraumatic aneurysms of the venous system, including trauma, inflammation and congenital weakness. Schatz et al.⁵ described, two main pathological findings in individuals with venous aneurysms; a reduction in smooth muscle cells and an increase in fibrous connective tissue.

Danis in 1982⁶ described a series of three case reports, in which surgical excision was undertaken and histopathological findings were obtained. These describe focal intimal thickening, increased amount of connect tissue and increased number of endothelial cells being present compared to the non-aneurysmal component of the vein. He therefore hypothesises

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that these areas are reactive to turbulence with resulting mechanical effects.

The commonest presentation of a venous aneurysm is that of a soft, compressible swelling, usually found along the axis of a vein.\(^7\) There are many reasons to recommend surgical treatment of venous aneurysms, the commonest being pain, swelling or undefined mass. Aneurysms of the internal jugular vein are normally managed by observation and rarely require surgery.\(^8\)

**References**


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