■ CASE STUDIES

Fast-Growing Atypical Cervical Mass

José Manuel Serradilla López, Miriam González Sánchez, Enrique Coscarón Blanco, Laura Isabel García, Mateo Jañez Moral, and Ángel Batuecas Caletrio
Hospital Clínico Universitario de Salamanca, Salamanca, Spain

Aneurysms of the jugular vein are an uncommon condition, typical of childhood and adolescence although they can appear at any age. Clinically, they normally constitute an asymptomatic cervical mass which increases when Valsalva's manoeuvre is applied. Doppler ultrasound is the most effective diagnostic test, with CT or NMR for doubtful situations. Treatment is conservative except for complications or major aesthetic repercussions. We present here the case of a 65-year-old female patient, and review the literature regarding aneurysms of the jugular vein.

Key words: Aneurysm. Internal jugular vein. Phlebectasia. Doppler ultrasound.

Masa cervical atípica de rápido crecimiento

Los aneurismas de la yugular interna son una entidad poco frecuente, propia de la infancia y la adolescencia, aunque pueden aparecer a cualquier edad. Clínicamente se observa una masa cervical asintomática que aumenta al realizar maniobras de Valsalva. La prueba diagnóstica más eficaz es la ecografía Doppler y, en situaciones dudosas, la tomografía computarizada y la resonancia magnética. El tratamiento es fundamentalmente conservador salvo con complicaciones o repercusiones estéticas importantes. Presentamos el caso de una paciente de 65 años afecta de esta enfermedad y revisamos la literatura publicada al respecto.

Palabras clave: Aneurisma. Vena yugular interna. Flebectasia. Ecografía Doppler.

INTRODUCTION

Aneurysms of the internal jugular vein are an uncommon entity that appear most frequently during childhood and adolescence and tend to be asymptomatic. The most efficacious diagnostic test is the Doppler ultrasound. Despite the emergence of non-invasive diagnostic methods, it remains a relatively unknown entity; hence, we feel that its description is of interest. We report the case of a 65-year-old female and review the literature published to date.

CASE STUDY

Sixty-five-year-old female who came to the emergency room due to a right supraclavicular neck mass measuring approximately 8×5 cm, present for several years that had grown significantly over the preceding 72 hours, as well as increased consistency and some degree of pain, particularly on palpation, without other ENT symptoms of interest. The most salient personal history included: high blood pressure, chronic atrial fibrillation, and valvular cardiopathy (double mitral valve lesion). The patient detected the swelling in 1994 without any change in size or function over a number of years.

Physical Examination

On physical examination, we found an elastic, bilobulated, supraclavicular mass on the right side measuring 8×5 cm that is not adhered to deep planes; carotid pulses can be felt through the mass. Some degree of enlargement is detected when Valsalva manoeuvres are performed. No alterations are evidenced in the nasopharynx, pharynx, or larynx with the flexible fibroscope. No cervical adenopathies were noted.

Complementary Testing and Diagnosis

A computerized tomography (CT) of the neck is performed with contrast (Figure 1) in which a well-delimited homogeneous image can be seen of a mass measuring approximately 7×5 cm that is unenhanced following the administration of contrast, having the same radiological density as the underlying muscle, and without infiltration of neighbouring structures or evidence of haematic content.

The patient's clinical symptoms and examination suggested a possible vascular origin of the neck mass; however, the imaging studies performed did not reveal a vascular nature to the mass or, in the absence of this, they revealed possible thrombosis of the content. Ultrasound

Correspondence: Dr. J.M. Serradilla López.
Eusebio Bona, 41 Bajo. 37003 Salamanca. España.
E-mail: joseserraorl@yahoo.es

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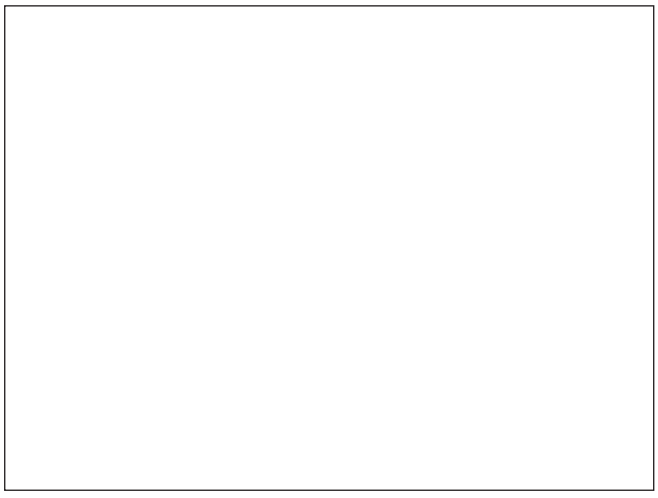

Figure 1. omputerized tomography of the nec : homogeneous mass without upta e of contrast.

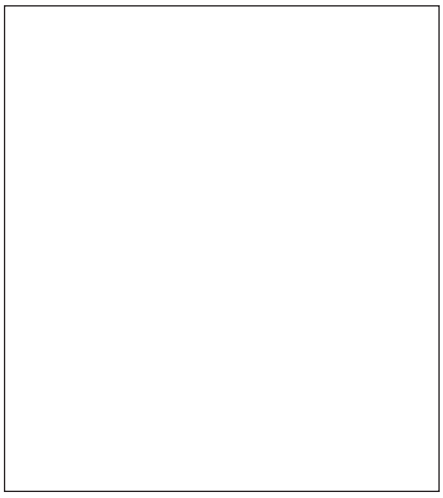

Figure 2. Angiogram (venous phase). Rounded image without clear vascular flow.

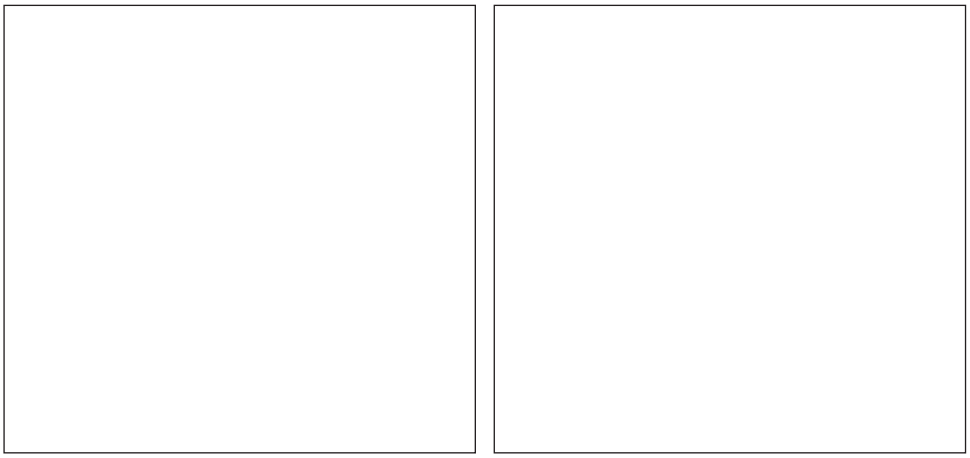

Figure 3. Dissection and e cision of the lesion, controlling the vascular a is.

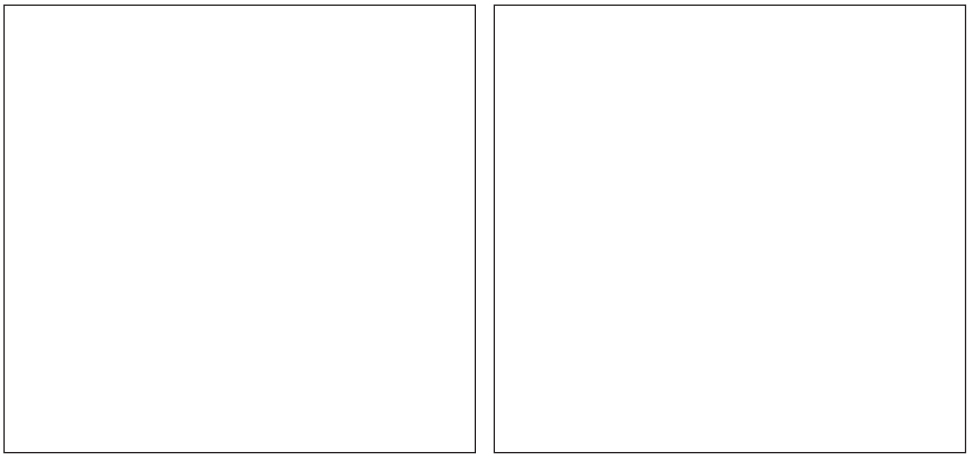

Figure 4. urgical field following e cision of the lesion and surgical specimen. ote the thrombosed haematic content of the aneurysm.

examination of the neck and an angiogram of the supra-aortic trunks were performed and a possible aneurysm of the internal jugular vein was seen as the likely cause of the swelling, although the lack of flow made the imaging diagnosis inconclusive (Figure 2).

Treatment

Given that there was no conclusive diagnosis and given the possibility of a huge thrombosed aneurysm, we proceeded to perform an exploratory right cervicotomy for the definitive excision and diagnosis of the neck swelling

(Figure 3 and 4). During surgery, an aneurysm of the internal jugular vein was detected, dissected, and removed, controlling the vascular blood flow. After opening the specimen, we found that it contained thrombosed blood.

Evolution

The patient is currently asymptomatic and did not present any kind of postoperative alteration.

DISCUSSION

Aneurysms consist of localized dilatations of any vessel; they are more common in arterial vessels, although it is also possible to find them in the venous and lymphatic systems. Venous aneurysms in the neck are rare, although they should be kept in mind during the differential diagnosis of any neck mass.[1] They have been called many things in the literature; the most widely accepted being: congenital venous cyst, venous aneurysm, pseudo venous aneurysm, venoma, varicocele, aneurysmatic varicose vein, jugular phlebectasia, or jugular venous ectasia, without consensus as to its name.[2] On the basis of shape, they are classified as spindle-shaped and saccular, the term phlebectasia is generally reserved for spindle-shaped dilatations, whereas the term aneurysm is saved for saccular dilatations, although both are usually used interchangeably without a clear distinction between them.[3] In the venous system of the neck and in order of frequency they involve the internal jugular vein, the external jugular vein and the anterior jugular vein.[2]

When they involve the internal jugular vein, they present clinically as a normally asymptomatic swelling. They sometimes present minor symptoms such as hoarseness due to pressure on the recurrent nerve, pulsatile tinnitus if it is tangential to the ear, discomfort on swallowing, discomfort in the shoulder, or unexplained weakness in the right hand. It is located in the supraclavicular area along the anterior edge of the sternocleidomastoid muscle.

It is a soft mass that is neither painful nor pulsing; the masses are characterized by the fact that they increase on exertion and with Valsalva's manoeuvre. They are more common on the right and in males and there have been cases of bilaterality.[4]

The emergence of new, non-invasive, diagnostic imaging methods, starting in the seventies, has made them easier to recognize and increased the frequency with which they are detected, although they continue to comprise a relatively unknown entity, which is why we believe their description to be of interest.[2,4]

Although cases of presentation in adults have been reported, such as our patient, aneurysms of the internal jugular vein should generally be considered a condition more typically associated with childhood and adolescence.[2,4,5]

The origin remains obscure and is considered to be idiopathic. There are various aetiopathogenic theories and certain factors that predispose and trigger the disease, such as congenital defects of the muscular layer in the venous wall, mechanical compression in the inferior cervical area and mediastinum or between the pulmonary cupula and the clavicle on the right, alterations in the venous valvular mechanisms, mechanical ventilation with prolonged positive pressure, and trauma.[2,4-7]

A proper differential diagnosis must be made, beginning, as in all neck masses, by ruling out malignant processes that may have taken place internally, phenomena that would bring about sudden changes in size (bleeding, necrosis, concomitant infection, etc). Other neck swellings that increase with Valsalva manoeuvres are also of special interest, such as external laryngoceles, pharyngoceles, cysts, or tumours of the superior mediastinum, cystic hygroma spreading to the superior mediastinum, and cervical pulmonary hernias (pulmonary pneumatoceles). The remaining neck mass present without changes in size on applying Valsalva manoeuvres.[4]

In most cases, the symptoms and physical examination suffice in order to reach an accurate diagnosis. Among the non-invasive diagnostic imaging methods, the most useful and widespread one is the Doppler ultrasound, which is capable of clarifying the nature of the lesion and its anatomical relations without the need for radiation. It is also easy to repeat.[2,4] When in doubt, CT and MRI are the most widely accepted diagnostic imaging techniques.[5]

As far as treatment is concerned, since it is a benign, self-limiting process, it is recommended to refrain from treating it and instead, prescribe regular follow-up, unless there are complications or severe aesthetic deformity.[2,4,7,8] Bilateral lesions should not be corrected simultaneously due to the risk of provoking massive cerebral oedema.[4] The most common complications are: thrombosis (as in our case), rupture of the aneurysm, particularly post-traumatic aneurysms, and Horner's syndrome due to compression of the post-ganglionar sympathetic fibres.[4,7,9] Treatment consists of surgical excision of the aneurysm with conservation or otherwise of the internal jugular vein. More conservative treatments have been reported, such as the draping technique for covering it with the omohyoid muscle described by Guerrier.[2,10]

Be that as it may, more precise classification must be made based on the aetiology and physiopathology in order to clarify action guidelines.

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