Acta Otorrinolaringol Esp. 2011;62(3):249–250

Acta Otorrinolaringológica Española

www.elsevier.es/otorrino

IMAGES IN OTORHINOLARYNGOLOGY

360° Coil of the Internal Carotid Artery☆

Bucle de 360° de la arteria carótida interna

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Received 23 September 2009; accepted 26 January 2010

We present a female patient, 72 years old, with no history of interest, who was referred to ENT consultation for dysphagia of a long evolution. In nasal fibre laryngoscope examination, we observed a parapharyngeal pulsatile mass on the right side (Fig. 1). We requested an angio-CT that showed a 360° coil in the cervical space at the level of the right internal carotid artery (ICA) (Fig. 2) and tortuous course in the left ICA (Fig. 3).

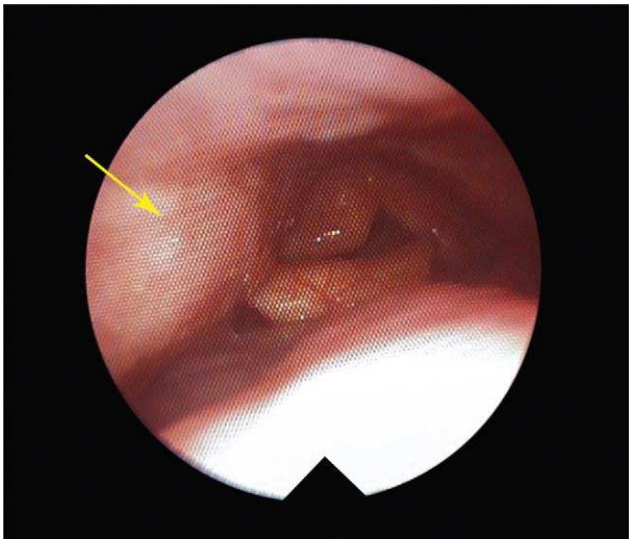

Figure 1 Nasal fibre laryngoscope view showing a parapharyngeal pulsatile mass on the right side.

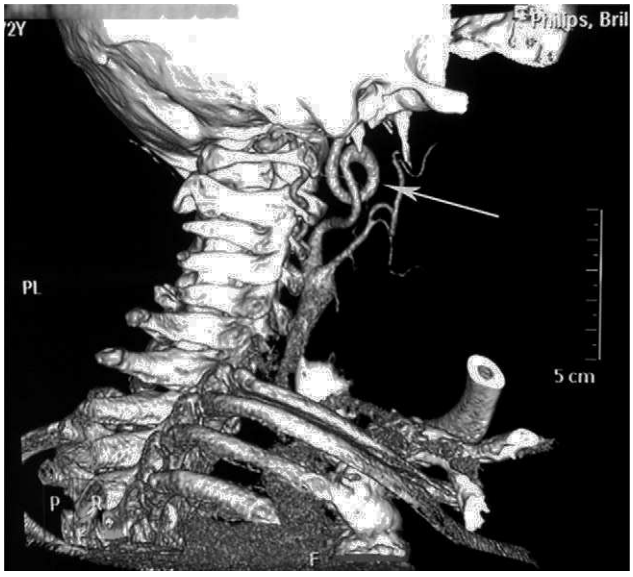

Figure 2 Angio-CT: 360° coiling of the right internal carotid artery located in the cervical space.

☆ Please cite this article as: Rodríguez Fernández-Freire A, et al. Bucle de 360° de la arteria carótida interna. Acta Otorrinolaringol Esp. 2011;62:249–50.

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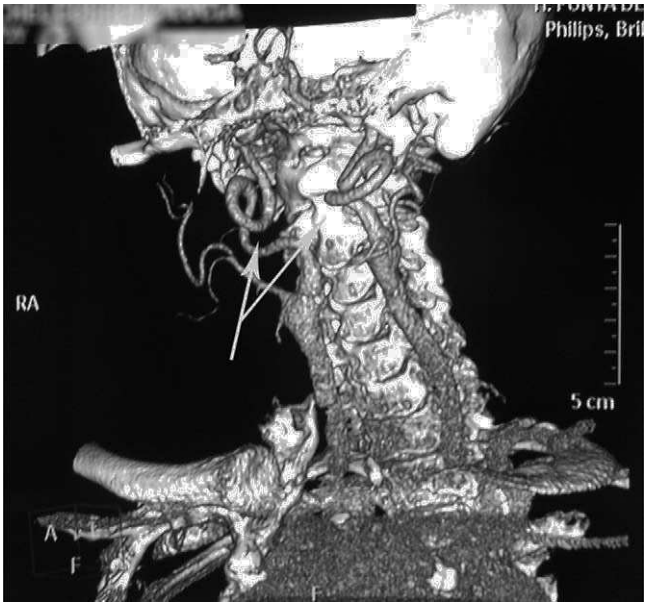

Figure 3 Angio-CT: image showing the tortuous course of the left internal carotid artery and the right ICA coiling.

The anatomical variations of the ICA in the parapharyngeal space are a potential risk during ENT surgical procedures, such as adenoidectomy, tonsillectomy or endoscopy-guided biopsy.

Data on the frequency of abnormalities in the course of the ICA varies in the literature, between 4% and 66%. The most common (25%) is the presence of elongation, while arterial coils are only found in 2%–3%.

Due to cost-effectiveness, the various diagnostic methods available are Doppler ultrasound, CT, angio-CT, angio-MRI and conventional angiography.

While ICA coils are described as embryological malformations, stretching or windings are due to atherosclerosis or fibromuscular dysplasia. These variations are asymptomatic in most cases, but can cause symptoms of varying intensity, from compressive processes to transient ischemic attacks, non-focal neurological symptoms (vertigo, tinnitus, etc.) or irreversible brain damage.

The existence of an angle or a coil in the ICA is not necessarily associated to surgical correction; however, surgical treatment is indicated in adult patients with symptoms of cerebrovascular ischemia associated with atheromatosis in the carotid bifurcation.