

A pulsatile pharyngeal wall: case report and clinical relevance

João Simões¹ · Jorge Miguéis¹ · António Miguéis¹

Received: 24 October 2016 / Accepted: 27 December 2016 / Published online: 25 March 2017
© Springer-Verlag France 2017

Dear Editor,

We read with interest, the article written by Salvatore Cappabianca et al. entitled “Extracranial internal carotid artery: anatomical variations in asymptomatic patients” [1], and we totally agree with the significant clinical value of the published study [1]. Considering the uncommon clinical manifestations of these variations and the rarity of retropharyngeal course of the internal carotid artery, we would like to present a patient with an uncommon symptomatic anatomical aberrancy and discuss its clinical relevance.

A 56-year-old man was admitted at our department with chronic symptoms of a foreign body sensation in the pharynx and progressive dysphagia with 2 years of evolution. He had no history of bleeding, alcohol use and he was not a smoker. The patient was otherwise healthy.

At our department, the pharyngeal endoscopy showed a pulsatile protuberance in the posterior pharyngeal wall. All the remaining physical examination and the upper gastrointestinal endoscopy were normal. The computed tomography of the neck showed an aberrant left internal carotid artery with a submucosal, tortuous and horizontal course, and a distance to the pharyngeal wall of 1.7 mm through the posterior pharyngeal wall (Fig. 1). This lesion was classified as a grade IV internal carotid artery aberration in the clinical classification system proposed by Pfeiffer et al. [2,

3]. The aberrant course of the left internal carotid artery can lead to the symptoms reported. Besides, according to that classification, the patient described has a very high risk for potential internal carotid artery injury. Thereby, the anatomical variation was highlighted in the patient’s medical record and the patient was alerted for possible risks during tracheal intubation and pharyngeal surgical procedures. Moreover, the patient was advised to avoid sharp-edged food. Diet modification (soft and semi-solid) was recommended and swallowing therapy was provided during 1 month with improvement of the symptoms.

The extracranial internal carotid artery usually is found posterolateral to the pharyngeal wall, separated from the pharynx by the superior pharyngeal constrictor muscle with an age-dependent distance from the tonsillar fossa [4]. There have been few reports on tortuosity of the internal carotid exhibiting pulsation in the pharyngeal wall, namely aberrations that cause clinical manifestations. We described another vascular etiology of dysphagia at C2 level contrary to dysphagia caused by lusoria artery at a cervical lower level.

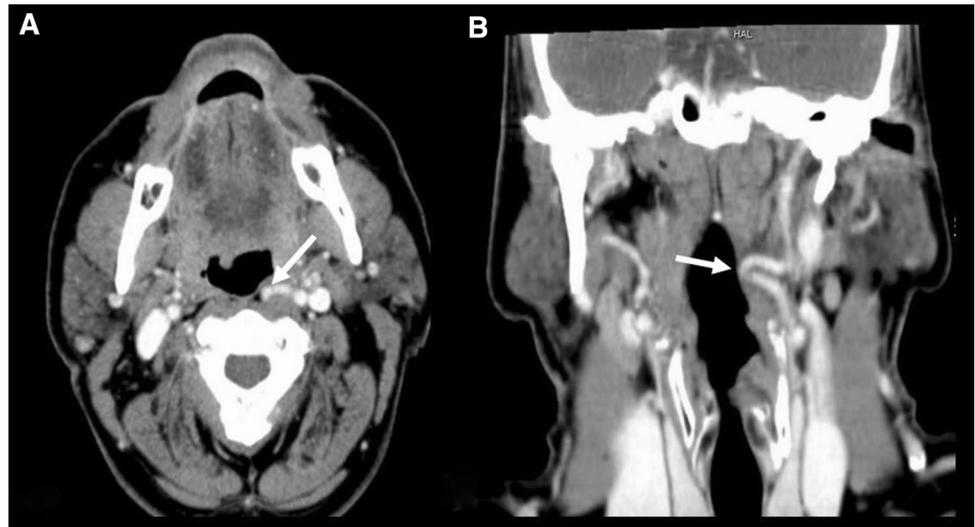
The unknown anatomical aberration of internal carotid artery can significantly increase the risk of life-threatening events at the time of common surgical interventions and can lead to chronic and unspecific symptoms. Physicians should be aware and consider this diagnosis.

Electronic supplementary material The online version of this article (doi:10.1007/s00276-016-1809-4) contains supplementary material, which is available to authorized users.

✉ João Simões
jofsim@gmail.com

¹ Department of Ear, Nose and Throat, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal

Fig. 1 Computed tomography of the neck. **a** Axial section (C2 level); **b** coronal section



Compliance with ethical standards

Conflict of interest The authors do not have any conflict of interest.

References

1. Cappabianca S, Somma F, Negro A, Rotondo M, Scutto A, Rotondo A (2016) Extracranial internal carotid artery: anatomical variations in asymptomatic patients. *Surg Radiol Anat* 38:893–902
2. Pfeiffer J, Becker C, Ridder GJ (2016) Aberrant extracranial internal carotid arteries: new insights, implications, and demand for a clinical grading system. *Head Neck* 38:E687–E693. doi:[10.1002/hed.24071](https://doi.org/10.1002/hed.24071)
3. Pfeiffer J, Ridder GJ (2008) A clinical classification system for aberrant internal carotid arteries. *Laryngoscope* 118:1931–1936
4. Van Abel K, Carlson M, Moore E (2016) Symptomatic internal carotid artery medialization: a rare anatomic variant resulting in cough, dysphonia and dysphagia. *Clin Anat* 26:966–970