Images in Otolaryngology

Prevertebral Carotid Arteries

Arterias carótidas prevertebrales

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We report the case of a 62-year-old female patient with foreign body sensation and nonspecific pharyngeal discomfort. Examination by transnasal flexible fibroscopy and pharyngoscopy revealed a submucosal asymmetry and pulse in the posterior wall of the oropharynx (Fig. 1). Although no surgical intervention was planned, given this finding we requested a computed tomography (CT) scan of the supra-aortic arteries, in order to determine the path of the internal carotid arteries. The study showed a progressively medial rostral-caudal path, which nearly contacted both carotids at the hypopharyngeal level (Fig. 2), with the latter being located in the prevertebral plane. A 3D reconstruction...
(Fig. 3) also showed how the right internal carotid ascended to the oropharynx in a medial path.

Every day we conduct varied diagnostic or therapeutic manoeuvres on any of the 3 levels of the pharynx. These actions range from adenoidectomy, tonsillectomy, direct pharyngolaryngoscopy, laryngeal microsurgery, and oesophagoscopy, to more complex interventions such as transoral laser resections. Complementary imaging tests, such as CT or magnetic resonance imaging (MRI), are not available for most of these actions, since they are not deemed necessary.

The proximity of the carotid arteries to the lateral walls of the pharynx is known and taken into account by all otolaryngologists, as well as the possibility of anatomical abnormalities which may complicate surgery. We believe that an imaging study should be performed upon suspicion of this possibility, patients should be informed of the results and any relevant findings should be included in the clinical history.