

Quiste de la hendidura branquial en paciente anciano: un reto diagnóstico

Branchial cleft cyst in an aged patient: a challenging differential diagnosis

A 70-year-old male patient, with a medical history of stable multinodular goiter, was referred to the endocrinology consultation by nodular growth. Thyroid ultrasound showed a well-defined anechoic lesion in the right lobe with 30 mm at its largest diameter (longitudinal axis), and other micronodular structures of unsuspected malignancy (figure 1).

The patient presented no altered thyroid function (Thyroid-Stimulating Hormone [TSH] 1.28 μ UI/mL [0.27-4.2]; free T4 1.08 ng/mL [0.93-1.70]). Fine needle aspiration biopsy of the identified lesion was performed. A yellow and thick fluid was instantly visualized. Cytological examination evidenced superficial squamous cells without atypia, follicular cells and colloid fluid, favouring extrathyroidal origin. Cervical Computed Tomography (CT) was carried out, due to compressive symptoms (dysphagia and dyspnea).

It unveiled an ovoid intrathyroidal lesion, causing moderate prominence of the right thyroid lobe and contralateral tracheal shift (figure 2). Right hemithyroidectomy was performed without any complications. Extemporaneous intraoperative macroscopic examination denoted a thin-walled, cystic lesion with a smooth inner surface. The corresponding histopathological examination of the surgical specimen revealed a cystic wall covered by stratified pavement epithelium, consistent with a branchial cleft cyst (figures 3A and 3B). Compressive symptoms disappeared after surgery. Currently, the patient remains under 6-month follow-up with thyroid function tests and ultrasonographic reassessment.

Branchial cleft cysts are derived from the incomplete obliteration of branchial cleft apparatus that lasts after embryonic development. They are usually placed in the lateral cervical areas, representing a great proportion of the neck congenital anomalies¹. However, this case shows an intrathyroidal branchial cleft cyst, an extremely rare location, whose pathophysiology remains uncertain. It has been postulated that intrathyroidal cysts may develop from the failure to atrophy of the third or fourth branchial pouches, ending up closely, or inside, the thyroid gland². Malignancy should be presumed and excluded as neck cancers may present as cystic masses, especially concerning atypically located neck masses emerging in adulthood³. Hence, the diagnosis was confirmed only after histopathological analysis.

The present case is singular, due to the rarity of its initial presentation in adulthood, and its unusual intrathyroidal location. For this reason, the authors consider crucial a high level of suspicion, regarding the broad differential diagnosis of cervical masses, as other more frequent and well-known congenital anomalies (e.g., thyroglossal duct cyst).

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Figure 1

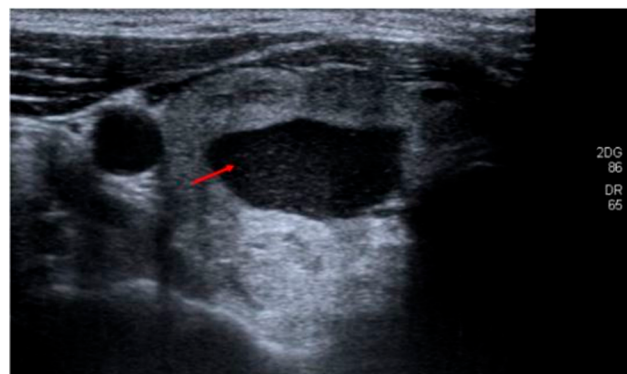


Figure 2

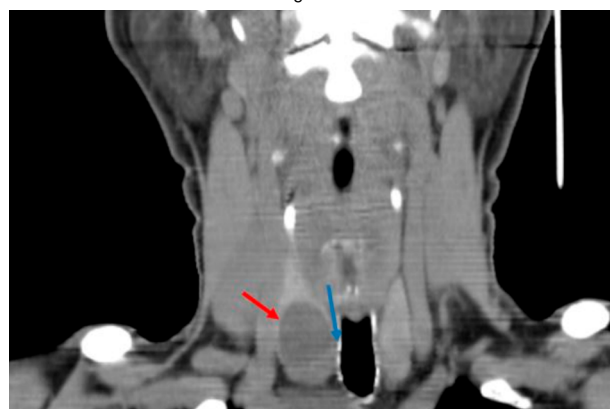


Figure 3A

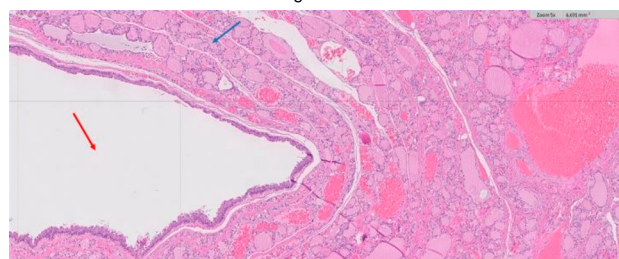
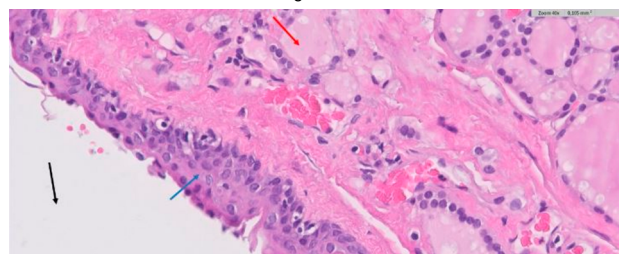


Figure 3B



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