CASE STUDY

Chronic Neck Hematoma From a Papillary Carcinoma of the Thyroid

Hematoma crónico producido por un carcinoma papilar de tiroides

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Received 14 December 2012; accepted 24 February 2013

Clinical Case

We present the case of a 52-year-old female born in the Sahara, who came to emergency services because of a cervical mass that had been growing progressively for the past 7 months (Fig. 1A). The patient presented moderate-effort dyspnea and dysphagia, without fever. Relevant personal antecedents included intervention for multinodular goiter a year earlier in Mauritania. Physical examination revealed a hard cervical mass occupying the right side of the neck from the level of the hyoid to the clavicle, with a cutaneous fistula that leaked a yellowish liquid. Blood analysis results were normal.

The urgent computed tomography (CT) scan performed showed a very large multilocular cystic mass extending from the jaw to the clavicle, displacing the larynx and the trachea to the left, surrounding them (Fig. 2A and B). One of the cystic lesions contained a denser liquid from infection secondary to the cutaneous fistula. Urgent cervicotomy was performed, finding an extremely hard cystic wall (approximately 1–2 cm thick), with drainage of abundant yellowish liquid upon being opened; inside the cystic mass, granulation tissue that bled upon touch was found near the posterior area of the larynx. Various biopsy samples were taken from the cyst wall and granulation tissue. The histological report on the cyst wall revealed a hematoma capsule, lacking atypical cell proliferations (Fig. 1B); the granulation tissue result was papillary thyroid carcinoma (Fig. 1C). Total thyroidectomy with removal of all remnant thyroid tissue was performed, conserving both recurrent nerves. The patient underwent scintigraphy and received an ablative dose of 131I followed by hormone replacement therapy. Two years later, the patient is disease free. The CT images during follow-up showed complete absence of thyroid tissue and disappearance of the cystic mass (Fig. 2C and D).

Discussion

Diagnosing neck tumors is a challenge for the otorhinolaryngologist given that they can be produced by a wide variety of entities, such as branchial cleft cysts (BCC),

Please cite this article as: Coca-Pelaz A, Costales-Marcos M, Vivanco-Allende B, Menéndez-Torre E. Hematoma crónico producido por un carcinoma papilar de tiroides. Acta Otorrinolaringol Esp. 2014;65:308–310.

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Figure 1  (A) Image of the cervical mass before the first intervention. (B) Chronic hematoma cavity, without neoplastic cells; only fibrous tissue and haematic residue can be seen (hematoxylin and eosin staining; magnification, ×20). (C) Papillary thyroid carcinoma with clear nuclei and frequent mitosis (hematoxylin and eosin staining; magnification, ×20).

Figure 2  CT images. (A and B) Contrast-enhanced axial CT slices showing the multilocular cystic mass filling the retro- and parapharyngeal spaces (arrow A indicates the papillary carcinoma area biopsied, while arrow B shows the 2-density cystic mass indicating superinfection). (C and D) Contrast-enhanced axial CT slices, showing complete hematoma resolution and absence of thyroid tissue.
cervical metastasis of head and neck squamous cell carcinoma (HNSCC) and metastasis of thyroid carcinoma.\(^3,4\) We present a case that would be difficult to see again, a large chronic hematoma of the parapharyngeal and retropharyngeal neck spaces produced by a papillary thyroid carcinoma unsuspected by the patient. We present histological evidence that the hematoma capsule did not present tumor cells, ruling out the possibility that this was a cystic metastasis produced by the papillary carcinoma.

Papillary carcinoma, the most frequent malignant tumor of the thyroid gland, has an excellent prognosis if correctly treated.\(^3\) The first therapeutic option is surgery.\(^4\) In thyroid surgery, obtaining a histological diagnosis is essential for being able to choose appropriate treatment. In our case, partial thyroid surgery had been performed on the patient, without a histological diagnosis. The thyroid tissue remaining from the papillary carcinoma produced a chronic hematoma.

Cystic masses represent a diagnostic challenge, given the differing origins and prognoses that they can have. The BCC are benign lesions, predominantly appearing in young patients, which derive from an embryonic remnant of the second brachial sac. Cases of HNSCC of Waldeyer’s ring can lead to ganglion metastases that suffer cystic degeneration (incidence from 33% to 62%, depending on the series)\(^5,6\) and that, radiologically speaking, are extraordinarily similar to BCC, making diagnosis difficult.

Another possible cause is thyroid carcinoma.\(^7,8\) Seven et al\(^8\) found that almost 1 of every 10 lateral cervical cysts in young adults were a metastasis from an unsuspected thyroid carcinoma. The nature of the liquid from the cyst can help with the diagnosis; in cases of BCC the fluid is usually opaque yellow, while it is red or brown in metastasis of papillary thyroid carcinomas due to the presence of thyroglobulin.\(^9\)

In short, this was a case that offered a diagnostic challenge. The only way to diagnose it was to carry out a surgical exploration to obtain material for microscopic study. These specimens helped to ascertain that the cystic mass was benign and provided a key fact for patient prognosis, offering a heretofore unknown diagnosis—papillary thyroid carcinoma—and permitting appropriate treatment.

**Conflict of Interests**

The authors have no conflicts of interest to declare.

**References**