CASE STUDY

Chondroid Hamartoma of the Larynx: An Exceptional Case

Hamartoma condroide laríngeo: un caso excepcional

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Received 31 March 2014; accepted 30 July 2014

A fifty-six year-old woman, smoker of 15–20 cigarettes per day for 40 years, presented with fluctuating dysphonia in the form of self-limited episodes over the past year with no other pharyngolaryngeal symptoms. A nasofibrolaryngoscopy was performed which showed a polypoid lesion in the free edge of the middle third of the right vocal fold, a pink submucosal lesion with well-defined edges on the left ventricular band somewhat smaller than 1 cm × 1 cm, minor arytenoid oedema, and parestis of the right vocal fold. Cervical palpation revealed non-specific adenopathies and multiple thyroid nodules.

A CT scan with contrast was performed of the neck and chest which revealed a paretic vocal fold in the paramedian position, with no alteration of the fatty planes confirmed after modified Valsalva manoeuvre (Fig. 1), and it was not possible to distinguish the submucosal lesion of the left ventricular band from the surrounding tissue due to the presentation of dense soft tissue similar to the surrounding tissue on the radiological image, bilateral laterocervical adenopathies of non-specific appearance, multiple thyroid nodules (one calcified), and the absence of significant alterations of the pulmonary parenchyma. The study of the thyroid was completed with an ultrasound which confirmed a multinodular goitre, and FNPA of a nodule which showed benign follicular hyperplasia.

Given the abovementioned findings (especially the presence of a submucosal lesion still to be diagnosed) a direct laryngoscopy was performed with complete resection of the lesions mentioned at this level. The histopathological study concluded polypoid tissue in the right vocal fold and a chondroid hamartoma (characterised by a disorganised pattern of cartilage and fibromuscular tissue, occasionally with epithelial elements, and less frequently, neural elements) in the left ventricular band (Fig. 2). Because a diagnosis in isolation in the larynx is so rare, a surgical specimen was sent for pathological anatomical examination, and a diagnosis was made of isolated chondroid hamartoma of the larynx (CHL).

At her postoperative check at 4 weeks, the patient did not present dysphonia, and fibrolaryngoscopy showed full re-epithelialisation of the surgical bed. The presence of further hamartomas and Cowden syndrome (CS) were ruled out by means of endocrine, neurological and gynaecological tests.

Discussion

The patient’s age (56) was within the bimodal range for the presentation of hamartoma, which has a peak in childhood (from 0 to 6 years of age) and another in adulthood.
Chondroid hamartomas of the larynx (CHL) are extremely rare pseudotumoural lesions, in contrast to pulmonary hamartomas, and are rarely malignant, with fewer than a dozen cases which have been well-documented in the literature, the supraglottic location is the rarest, and therefore they can go undetected for years if they do not grow to a large size and cause laryngeal symptoms (dysphonia, dyspnoea, cough). Cases of small CHL have only been described in children, where they cause symptoms of aspiration pneumonia from an association with a posterior laryngeal cleft.\textsuperscript{2,3}

The finding of a submucosal lesion was suggestive of a mesenchymal tumour\textsuperscript{4} and required complete removal.

Figure 1  Neck and chest CT images of right paretic vocal fold, non-specific bilateral laterocervical adenopathies and a calcified nodule in the left thyroid lobe.

Figure 2  Macroscopic and microscopic images of the surgical piece of the ventricular band, with HE staining, which show a chondroid hamartoma characterised by the presence of a disorganised pattern of cartilage and mature fibromuscular tissue.
of the lesion for subsequent anatomopathological study. In adults cartilaginous hamartoma of the larynx needs to be distinguished from the more common chondrometaplasia caused by mesenchymal degeneration secondary to phonatory vocal trauma (the presence of small submucosal nodules of cartilage tissue, well organised with no atypias). Anatomopathological study of the surgical piece to confirm histology is a safety strategy to enable a differential diagnosis with more common benign tumours of the larynx such as choristomas (a mixture of mature tissues from other anatomical locations), chondromas (benign tumours of lobular growth of mature chondrocytes and homogeneous cartilaginous matrix), mixed benign tumours, teratomas (mature and immature tissues, principally of neural origin), rhabdomyomas (benign striated muscle tissue tumours) and chondrometaplastic nodules (localised metaplastic transformation of epithelial tissue). Due to all of the above, we consider that the differential diagnosis of chondroid hamartoma of the larynx should include submucosal tumours of the larynx. The presence of an isolated laryngeal hamartoma is much less common than some multiple hamartomatosis syndromes such as CS which was ruled out in this case as there were not sufficient operational criteria from the International Cowden Consortium, 2000.6,7

The patient underwent a full transoral resection of the lesion, although a CO₂ laser can be used for excision or a combination of both methods.8 In general the treatment is on demand, even a hemi-supraglottectomy, hemilaryngectomy or total laryngectomy have been performed in some cases of a large size. Transoral resection is the route of choice,9 provided a complete resection can be ensured using this route,10 as CHL rarely recur in adults after a complete excision, and they rarely turn malignant; otherwise an external approach is indicated. The prognosis essentially depends on the location of the lesion, and the possibility of its complete resection. In any case the prognosis is very good since it is extremely rare for these isolated lesions to become malignant.

**Conflict of Interests**

The authors have no conflict of interests to declare.

**References**