

## An unusual case of laryngeal pseudotumour

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### Abstract

A pseudotumour represents a lesion that masquerades as a malignant neoplasm. We present an unusual case where the appearance of a tumour was the result of chronic inflammation stimulated by the presence of food matter. This inflammatory reaction resulted in upper airway obstruction associated with a mass lesion and vocal fold palsy.

**Key words:** Granuloma, plasma cell; Respiratory sounds; Vocal fold paralysis

### Case report

A 72-year-old male smoker presented to the ENT department with a three-week history of gradually worsening stridor. On initial examination, indirect (mirror) laryngoscopy revealed a right supraglottic lesion and an immobile vocal fold. No masses were palpable in the neck. A CT scan was performed which showed a mass in the larynx extending across the midline posteriorly and involving the right vocal fold. Thickening of the right aryepiglottic fold was also noted and the appearance was reported to be that of a laryngeal tumour (Figure 1). Subsequent direct laryngoscopy and pharyngoscopy under general anaesthesia revealed the appearance of a tumour in the right pyriform fossa invading the right side of the larynx and fixing the right vocal fold. A biopsy was carried out and, in view of the degree of obstruction, a tracheostomy was performed.

Examination of the histological material (Figures 2 and 3) submitted revealed several fragments of inflamed granulation tissue and necrotic debris but no evidence of malignancy. Several of the pieces of tissue were associated with overlying

squamous epithelium which was focally inflamed but not dysplastic. Within the necrotic debris several fragments of foreign material were identified, some of which had a laminated structure suggesting origin from bone while others resembled vegetable material. The appearance of the biopsy suggested the presence of an abscess related to the foreign material with no evidence of malignancy.

The patient was treated with intravenous broad spectrum antibiotics and oral prednisolone. Direct examination was repeated a week later and an ulcerated area at the apex of the right pyriform sinus was biopsied, again showing only granulation tissue. At this second examination the right vocal fold was noted to be mobile.

The patient was subsequently decannulated and made an uneventful recovery. Three months later a repeat direct laryngoscopy revealed a normal-looking larynx and hypopharynx.

### Discussion

The term pseudotumour is generally accepted as describing a non-neoplastic swelling and is most commonly used to include swellings that mimic malignant neoplasms. Radiologically,

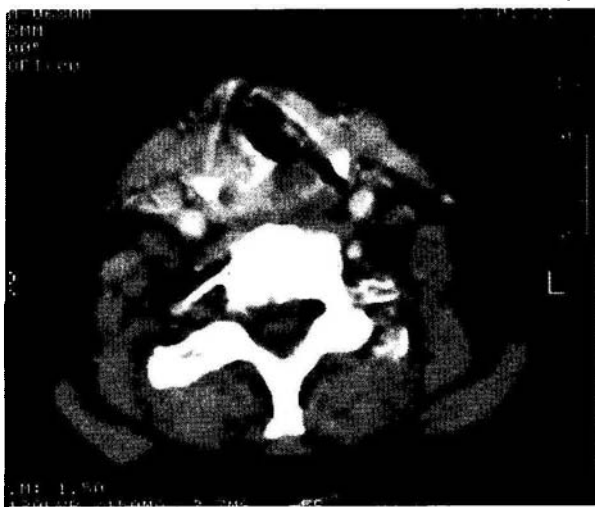


FIG. 1

Transaxial CT scan of neck showing a mass lesion in posterior part of right side of larynx extending across the midline posteriorly, and involving the right vocal fold.

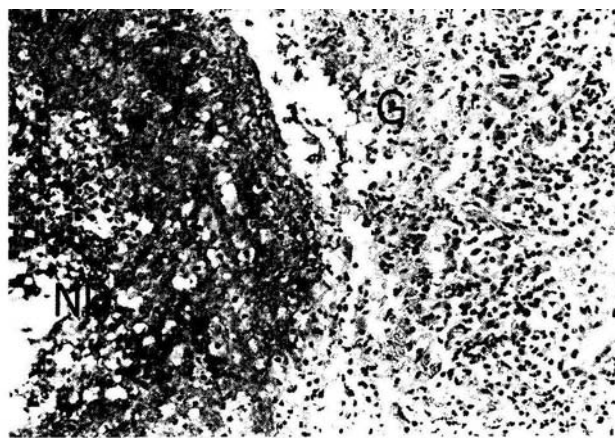


FIG. 2

Photomicrograph of the biopsy specimen indicating the presence of inflamed granulation tissue (G) and necrotic debris (ND). (H&E; x200).

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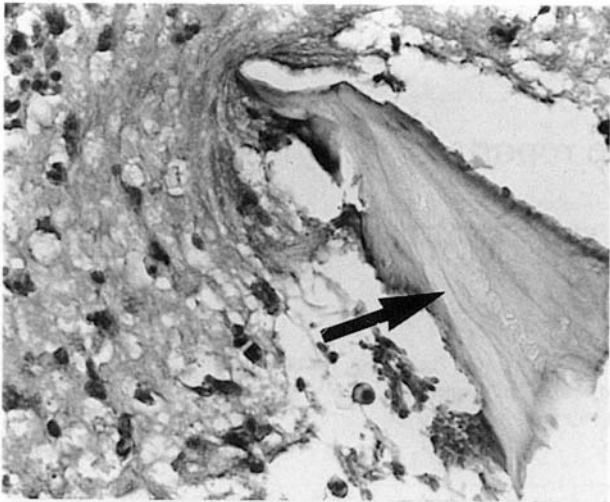


FIG. 3

Photomicrograph of a fragment of the foreign material (arrow) identified within the necrotic debris. The fragment can be seen to have a laminated structure suggesting origin from bone. (H&E;  $\times 400$ ).

normal anatomical structures may cause filling defects in the anterior wall of the hypopharynx suggestive of a mass lesion (Howie, 1980). Vocal fold polyps and nodules form the largest group of non-neoplastic laryngeal disorders but are usually readily recognizable (Sellars, 1979). Rare cases of idiopathic inflammatory pseudotumours of the larynx have been described in the literature (Manni *et al.*, 1992). However, our case is unusual in

that the appearance of the tumour was simulated both radiologically and visually as a result of a prior unknown episode of food lodging presumably in the pyriform sinus. The resultant chronic inflammation was sufficient not only to produce a mass lesion consisting of granulating inflammatory tissue but resulted in fixation of the vocal fold. The worsening stridor was attributed to increased obstruction caused by the swelling associated with local infection and inflammation, and to the inability of the right vocal fold to abduct adequately due to the mass effect.

A tracheostomy was clearly felt to be the safest option at the time of the initial biopsy but might have been avoided if adequate debulking had been augmented with mineralocorticoid steroid therapy if the absence of a tumour could have been confirmed by frozen section.

#### References

- Howie, J. L. (1980) Postcricoid pseudotumour. *Journal of the Canadian Association of Radiology* **31**(4): 225–229.
- Manni, J. J., Mulder, J. J., Schaafsma, H. E., van Haelst, U. J. (1992) Inflammatory pseudotumour of the subglottis. *European Archives of Otorhinolaryngology* **249**(1): 16–19.
- Sellars, S. L. (1979) Benign tumours of the larynx. *South African Medical Journal* **56**(22): 943–946.

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