Spindle cell lipoma of the epiglottis: a potential airway emergency

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Lipomas are benign tumours arising from mature white fat cells (adipocytes or lipocytes) derived from mesenchymal origin. Lipomas in the head and neck region account for 15–20% of lipomas with laryngeal lipomas accounting for less than 1% of benign laryngeal tumours. To date, approximately 125 cases of laryngeal lipomas have been reported, with only 6 of those cases being reported as spindle cell lipoma. We present a case of laryngeal spindle cell lipoma presenting with symptoms of snoring and globus pharyngeus.

Case report

A 56-year-old man was referred to an outpatient clinic with a five-month history of globus sensation. He also reported new onset snoring with some restriction to breathing when lying flat. Clinically, he demonstrated a muffled “hot potato” voice with no evidence of stridor or airway distress. Flexible nasolaryngoscopy was performed, which showed a large lobulated, partially compressible soft tissue mass with complete obstruction of the supraglottic region, which appeared to arise from either the epiglottis or vallecula (Figure 1). The glottis and subglottis were unremarkable in appearance.

The patient was referred to the Emergency Department due to the size of the lesion, with risk of airway obstruction. Computed tomography (CT) imaging with intravenous contrast was performed, demonstrating a large heterogenous lesion in the laryngopharynx with a mean Hounsfield unit of -40 (Figure 2). The patient underwent an awake fibroptic intubation with Lindholm suspension microlaryngoscopy and excisional biopsy. The lesion appeared well encapsulated and was able to be removed en bloc with Procise Laryngeal Wand coblation technique (Figure 3). He was admitted for monitoring with immediate return to normal diet and was discharged day 2, post-operatively. Histopathology demonstrated a deep-seated, well-circumscribed lesion composed of a mixture of mature adipocytes, bland fibroblast-like spindle cells and ropey collagen. Immunohistochemical stains demonstrated strong staining for CD34 consistent with spindle cell lipoma. Follow-up at three months demonstrated a normal epiglottis with no evidence of recurrence.

Figure 1: Nasolaryngoscopic view of supraglottis demonstrating large lobulated mass.
Figure 2: Sagittal CT image demonstrating a supraglottic mass obstructing the airway

Figure 3: Supraglottic soft tissue mass removed *en bloc*.
Discussion

Most patients with laryngeal lipomas present in the sixth decade of life with a male to female ratio of 5:1. Symptomatology depends on the site and size of tumour within the larynx and pharynx. As most lipomas are slow growing, symptoms may be gradual onset but progressively worsening.4,5 Symptoms are secondary to obstruction of the upper aerodigestive tract, and can include dysphagia, dysphonia, globus pharyngeus and airway obstruction in advanced cases.6–10

Definitive management of lipomas is surgical excision. Most laryngeal lesions can be removed endoscopically given the well-encapsulated nature of the lesion. Large tumours may require an external approach. External approaches usually require a transverse neck incision with either a pharyngotomy (lateral or transhyoid) or laryngofissure to gain access.

Laryngeal lipomas are rare benign tumours that warrant special attention given the complexity of the region. Spindle cell lipoma is an even rarer subtype of lipoma that may resemble liposarcoma. This case highlights the need to perform a nasendoscopy on every individual who presents with globus sensation. Furthermore, new onset of snoring serves as a “red flag” symptom and should not be ignored. Prognosis is good with complete resolution of symptoms following a complete excision either endoscopically or via external approach.
COMPETING INTERESTS
Nil.

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