Spindle cell lipoma of the epiglottis: a potential airway emergency

Sejad Ahmadzada, Joyce Pui Kiu Ho, Kartik Vasan, Tony Shih-Wei Kuo

Lipomas are benign tumours arising from mature white fat cells (adipocytes or lipocytes) derived from mesenchymal origin.[1] 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.[2,3] 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 fibreoptic 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.

AUTHOR INFORMATION
Sejad Ahmadzada, MBBS MS, Department of Otolaryngology Head and Neck Surgery, Gosford District Hospital, New South Wales, Australia.
Joyce Pui Kiu Ho, MD MS, Department of Otolaryngology Head and Neck Surgery, Gosford District Hospital, New South Wales, Australia.
Kartik Vasan, MBBS MPhil, Department of Otolaryngology Head and Neck Surgery, Gosford District Hospital, New South Wales, Australia.
Tony Shih-Wei Kuo, MBChB FRACS, Department of Otolaryngology Head and Neck Surgery, Gosford District Hospital, New South Wales, Australia and Department of Otolaryngology Head and Neck Surgery, Macquarie University Hospital, New South Wales, Australia.

CORRESPONDING AUTHOR
Joyce Ho, Department of Otolaryngology Head and Neck Surgery, Gosford District Hospital, Holden Street, Gosford New South Wales, Australia 2250. E: joycepkho@gmail.com

REFERENCES
1. Wenig BM. Lipomas of the larynx and hypopharynx: a review of the literature with the addition of three new cases. J Laryngol Otol. 1995;109:353-7.
2. Yoskovitch A, Cambronero E, Said S, Whiteman M, Goodwin WJ. Giant lipoma of the larynx: a case report and literature review. Ear Nose Throat J. 1999;78:122-5.
3. Barisella M, Giannini L, Piazza C. From head and neck lipoma to liposarcoma: a wide spectrum of differential diagnoses and their therapeutic implications. Curr Opin Otolaryngol Head Neck Surg. 2020;28:136-43.
4. Cappabianca S, Colella G, Pezzullo MG, Russo A, Iaselli F, Brunese L, et al. Lipomatous lesions of the head and neck region: imaging findings in comparison with histological type. Radiol Med. 2008;113:758-70.
5. Fletcher CD, Martin-Bates E. Spindle cell lipoma: a clinicopathological study with some original observations. Histopathology. 1987;11:803-17.
6. D'Antonio A, Mottola G, Caleo A, Addesso M, Boscaino A. Spindle cell lipoma of the larynx. Ear Nose Throat J. 2013;92:E9.
7. De Vincentiis M, Greco A, Mascelli A, Soldo P, Zambetti G. Lipoma of the larynx: a case report. Acta Otorhinolaryngol Ital. 2010;30:58-63.
8. El-Monem MH, Gaafar AH, Magdy EA. Lipomas of the head and neck: presentation variability and diagnostic work-up. J Laryngol Otol. 2006;120:47-55.
9. Nada G, Omezzine JS, Maher D, Nouha BH, Hssine H. Laryngeal lipoma: a rare cause of dysphonia. Pan Afr Med J. 2017;26:9.
10. Deutsch PG, O'Connell J. Laryngeal lipoma: a rare cause of acute intermittent airway obstruction. BMJ Case Rep. 2016;22:22.

