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CASE REPORT

AN INTRIGUING CASE OF LARYNGEAL FIBROLIPOMA - CASE REPORT AND REVIEW OF LITERATURE

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ABSTRACT

Although fibrolipomas are common benign mesenchymal tumors and are frequently found in trunk and limbs, their occurrence in head and neck is rare and still rarer is their endolaryngeal presence.

They may cause clinical dilemma due to their rarity and varied clinical presentations from progressive dysphagia to acute airway obstruction. We present a case of laryngeal fibrolipoma in an adult Indian male who presented with progressive obstructive sleep apnea and sudden appearance of a mass in oral cavity which was removed via transoral endoscopic approach.

Keywords– Fibrolipoma larynx, lipoma, obstructive sleep apnea, transoral excision

INTRODUCTION

Fibrolipomas are common benign tumours of mesenchymal origin (fat and connective tissue) and occurs frequently in trunk and limbs (1,2). Head and neck fibrolipomas are rare and even rarer is its endolaryngeal occurrence (2). Common presentations are hoarseness, obstructive sleep apnoea and sometimes dyspnoea or stridor. Clinical acumen and flexible fibreoptic laryngoscopy with appropriate imaging are pivotal in establishing the diagnosis (1,3). When diagnosed, treatment of choice is complete surgical excision. We report a very rare case of laryngeal fibrolipomas in a 50 year-old Indian male who presented with excessive cough followed by sudden appearance of a mass in oral cavity and dysphagia.

CASE REPORT

A 50-year-old Indian male, a reformed smoker and habitual tobacco chewer, presented with excessive cough for 3 days and sudden appearance of a mass in oral cavity during a bout of cough, followed by dysphagia due to functional obstruction. Also, he had history of snoring for one year associated with intermittent apnoeic spells. He did not have complaints of odynophagia, dyspnoea, hoarseness, throat pain, loss of weight, loss of appetite and symptoms suggestive of prior laryngeal disease. He had no known comorbidities and no contributing family history.

Examination of oral cavity and oropharynx revealed a 4 X 3 cm non tender, non-bleeding, pale, soft, smooth pedunculated mass covered with normal looking mucosa in floor of mouth extending to left vallecula (Fig 1).

Fig 1 –Black arrow - Soft, pedunculated 4 X 3 cm pale, insensitive, non-bleeding mass seen over floor of mouth (left) extending to vallecula.

Mapping with transnasal flexible fibreoptic laryngoscopy revealed that the mass was originating from left arytenoid and aryepiglottic fold. Other laryngeal subsites were normal and glottic chink adequate (Fig 2).

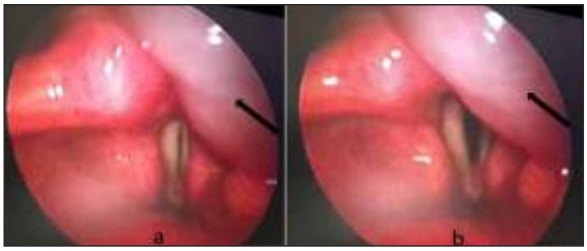

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Fig 2 - Flexible fibreoptic laryngoscopic findings revealed a pale, soft looking mass, covered with normal mucosa, originating from left arytenoid and aryepiglottic fold, extending upwards to left vallecula and floor of mouth. (a) Mass originating from left aryepiglottic fold. Rest of the laryngeal subsites are appearing to be normal. (b) Bilateral true vocal cords were mobile and adequate glottic chink present.

Contrast enhanced CT scan showed a well-defined, smoothly marginated, pedunculated, mixed soft tissue and fat density hypo non-enhancing mass arising from left arytenoid and aryepiglottic fold and extending towards oral cavity. Fat planes around the mass were intact and there was no evidence of bony erosion of surrounding structures (Fig 3).

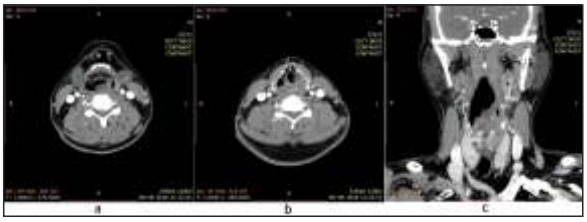

Fig 3 – CECT neck showing a hypo non-enhancing, well defined, mixed soft tissue and fat density. Axial sections (a)–Arrow – mass arising from left aryepiglottic fold and (b) Arrow – mass extending to vallecula. Coronal section (c) Arrow – extension of mass as explained.

We decided, with a provisional diagnosis as benign growth supraglottis, probably lipoma, to perform a complete tumour resection via microlaryngoscopy assisted transoral approach under general anaesthesia. Bulk of mass was removed from left vallecula and a Kleinsasser's anterior commissure microlaryngoscope inserted for complete visualisation. Laryngeal part of mass was seen originating from left arytenoid and interarytenoid region and extending up to post cricoid region. Mass was removed in toto and base cauterised (Fig 4a). Post-operative period was uneventful and patient was discharged on postoperative day 4. Histopathology reported it to be Fibrolipoma (Fig 4b, 4c).

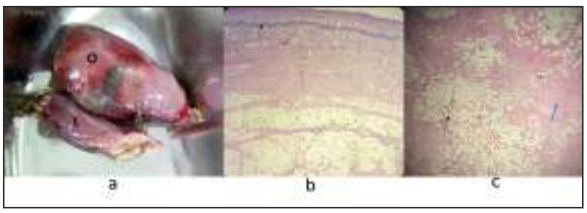

Fig 4 – (a) Specimen – L – laryngeal part, O – oral part (b) Photomicrograph showing a lining of stratified squamous non keratinizing epithelium with foci of ulceration (black arrow), and (b) The underlying sub epithelial tissue shows the presence of mature adipocytes separated by thin as well as thick fibro-vascular septa (black arrow). At places there is presence of granulation tissue as well as marked histiocytic proliferation in sub epithelium (thick blue arrow).

DISCUSSION

Lipomas are benign tumours of mesenchymal origin and are relatively common, occurring mostly in trunk and limbs. Its occurrence in head and neck lipomas account for 15% of all and they are common in posterior cervical subcutaneous tissue. Endolaryngeal lipomas are very uncommon and they represent 0.6% of all benign laryngeal tumours [1,4]. Lipomas may be classified into various histological variants as simple lipoma, mixolipoma, chondroid lipoma, angiolipoma, angiomyolipoma, fibrolipoma, myelolipoma, sialolipoma, pleomorphic lipoma spindle cell lipoma, and atypical lipoma (5). Etiopathology of fibrolipomas is unknown, although few studies have indicated its association with endocrine imbalance but uncertainty still exists (6,7). They are known to occur at around 6th decade of life and are male preponderant with male to female ratio of 5:1 (8).

Intrinsic laryngeal fibrolipomas are further rarer [5, 7] and usually involve epiglottis, subepithelial fat of false vocal cord and aryepiglottic fold structures [8,9]. While small fibrolipomas may go unnoticed, as they become larger they may cause progressive dyspnoea, dysphagia, snoring and obstructive sleep apnoea, and are known to cause progressive or sudden airway compromise necessitating emergent airway control [1].

Often seen as soft, smooth, insensate, pedunculated mass covered with normal looking mucosa, they can be clinically diagnosed with fair accuracy with flexible fibreoptic transnasal laryngoscopy. Smaller masses may throw young surgeon in a quandary as they may be confused with intrinsic laryngocele or a retention cyst, which, are common differential diagnoses [9]. Contrast enhanced CT Scan may further help in securing diagnosis with typical features of a well-defined, low attenuation mass (-83 to -134 Hounsfield units) with intact fat planes all around. In select few doubtful cases, MRI can be

sought. Typical MRI features of fibrolipoma consists of signal characteristics of fat which is hyperintense in T1 and with intermediate intensity in T2. Fat suppression sequences can be used if clinical perplexity persists[10,11].

Once diagnosed, treatment of choice remains complete surgical excision through various approaches which can be chosen on case to case basis. With smaller masses and those which present without airway obstruction, transoral endoscopic approach suffices. Larger ones presenting with airway emergencies may require pre-emptive tracheostomy and transcervical open approach. Recurrences are uncommon in a surgical scenario of careful and complete removal of mass. Malignant transformation of laryngeal fibrolipomas is reported to be extremely rare[1,6,9].

Compliance with ethical standards

Ethical clearance: Authors have taken clearance with institutional ethical committee before undertaking this research. A written informed consent and permission has been taken from study subject to publish his clinical images, biochemical and radiological investigations and other relevant data.

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Conflicts of interest: All authors declare that they have no conflict of interests.

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