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CASE REPORT

Lipomas of Larynx: The Rare Entities

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ABSTRACT

Lipoma is the commonest soft tissue tumor arising anywhere in the body, but its occurrence in the larynx is relatively rare. We present a rarest case of lipoma with cartilaginous metaplasia arising from the larynx just above the anterior commissure. The second case report is about a large spindle cell lipoma of larynx presented with stridor.

Keywords: Benign tumors, Video-laryngoscopy, Microlaryngeal surgery, Diode laser.

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INTRODUCTION

Lipomas are benign, circumscribed expansile, connective tissue tumors predominantly composed of mature white fat cells. This neoplasm commonly occurs in trunk and upper limb and is relatively rare in upper aerodigestive tract.[1] Occasionally, lipomas are altered by the admixture of variable amounts of other mesenchymal elements, notably fibrous tissue (fibrolipoma), mucoid substances (myxoid lipomas) and rarely cartilage (chondrolipoma). In previous case reports regarding chondrolipomas, it has been found that chondrolipomas of larynx commonly arises from anterior surface of epiglottis.[2] However, in our case we encountered a chondrolipoma arising from anterior commissure of larynx.

Spindle cell lipomas are a group of benign lipogenic soft tissue tumors.[5] They were first defined by Enzinger and Harley in 1975. They are circumscribed lesions arising typically on the posterior neck and upper back of male adults in the fifth and seventh decades.[6] It is a soft tissue tumor characterized by replacement of the mature fat tissue by spindle cell proliferation. They are mostly solitary, well-capsulated and slow-growing.[5] Spindle cell lipomas of larynx are very rare. We report here a case of spindle cell lipoma of the interarytenoid region.

The purpose of this paper is to report rare cases of lipomas of larynx. The paper also highlights the need for high index of suspicion needed to arrive at the diagnosis of this condition.

CASE REPORTS

Case 1

Our patient was a 44-year-old female who was presented with recurrent choking spells for the past 5 months and occasional discomfort in the throat. There was no change of voice or dysphagia.

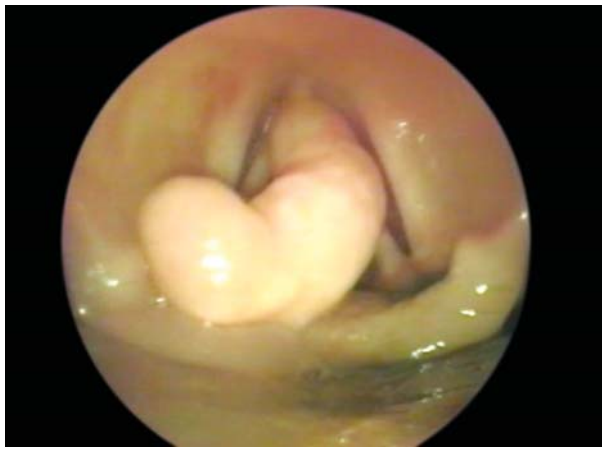

Fig. 1: Chondrolipoma is seen attached to anterior commissure of larynx

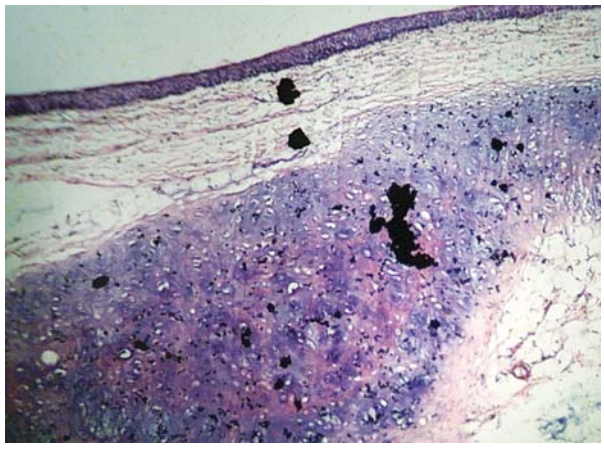

Fig. 2: High power magnification with hematoxylin and eosin (H&E) stain of the chondrolipoma

On indirect laryngoscopy, single pedunculated, lobulated and S-shaped mass above the vocal cords was seen. It was moving transglotically. However, exact site of origin of the mass could not be made out. On videolaryngoscopy, the mass was found to be attached to an area just above anterior commissure (Fig. 1). Both the true and false vocal cords and rest of the pharynx and larynx were normal. It was observed that mass was occasionally occluding glottic chink producing breathing difficulty for the patient. It was also occasionally slipping into one of the pyriform sinuses. Provisional diagnosis of papilloma of the larynx was made. We subjected the patient to microlaryngeal surgery and the tumor was excised. The tumor base was cauterized with diathermy. The patient is on follow-up since

1 year and no recurrence was made out. The histopathological examination of the excised tumor was reported as chondrolipoma (Fig. 2).

Case 2

A 50-year-old man presented to our outpatient department with insidious onset, gradually progressive change in voice for a duration of 1½ years. The patient's voice was breathy in nature. He had no complaints of difficulty in breathing or difficulty in swallowing. There were no symptoms suggestive of aspiration or regurgitation or cough with expectoration. There was no past history of trauma, any surgeries or intubation. Patient had smoking and tobacco chewing habits.

The videolaryngoscopy revealed a well-defined smooth surfaced mass of about 2 × 2 cm arising from the interarytenoid region more to the left side and projecting into the posterior glottis (Fig. 3). The movements of bilateral vocal cords were normal. There were no other laryngeal abnormalities.

We did an elective tracheostomy for the purpose of delivering general anesthesia to the patient and in anticipation of trauma during intubation followed by microlaryngoscopic diode laser excision (Diomed, using 400 mm fiber) of the tumor mass.

Intraoperatively, an encapsulated fibrofatty mass of about 2.5 × 2.5 cm was identified just under the mucosa of interarytenoid region, which was excised and sent for histopathological analysis. Histological examination revealed areas of mature adipose tissue interspersed with areas of spindle-shaped fibroblasts (Fig. 4).

Postoperatively, patient was put on Ryles tube feeding and a short course of injectable steroids for 6 days. Videolaryngoscopy at 7th postoperative day showed adequate signs of healing with the excised region smooth and flushing with the surrounding areas. There were no signs of edema or residual or recurrence of growth. Tracheostomy stoma closure was done on 7th day. Patient was followed up routinely every 2 weeks for past 2 months. We noticed improvement in the quality of voice and there was no recurrence of the growth even after 3 months of follow-up.

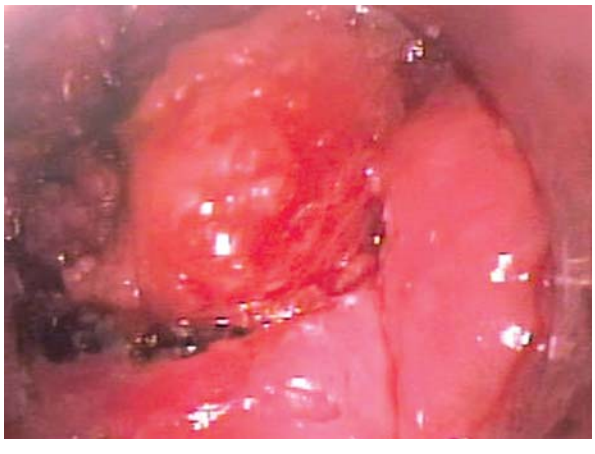

Fig. 3: Intraoperative picture of spindle cell lipoma in the interarytenoid area. *Note*: The lesion obscures the view of glottis

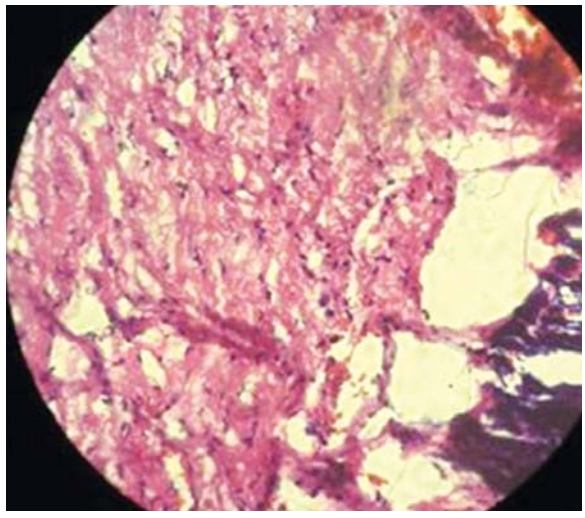

Fig. 4: H&E stain examination of the specimen of spindle cell lipoma

DISCUSSION

Lipoma is true connective tissue neoplasm arising from proliferation of the connective tissue.

Chondrolipoma are extremely rare in larynx. In our case the tumors were presented with unusual history of occasional choking spells and occasional discomfort in the throat. The choking spells could be attributed to the transglottic mobility of the mass where the mass at times found occluding the glottic inlet. Recurrent slipping of the tumor into pyriform sinuses could have caused throat symptoms.

The origin of adipose tissue may be linked to developmental mesodermal rest and 2nd and 4th pharyngeal cleft tissue which contributes to the formation of pharynx. This developmental tumor model readily explains the possible occurrence of cartilage, a major component of normal pharyngeal arches.[3] Other possibility is that the tumor would have originated from pre-epiglottic fat which would have been the case in previous literatures. This second possibility is unlikely in our case as the infrahyoid epiglottis was free. Next possible explanation could be focal cartilaginous metaplasia originating from pluripotent primitive mesenchymal rests.[4]

Spindle cell lipomas contain collagen fibers and small, cylindrical spindled cells and mixed mature adipocytes within a matrix containing mucinous material. Spindle cell lipomas appear 60 times less frequently compared to the classical lipomas.[7] Described for the first time by Enzinger and Harvey in 1975, this benign tumor is characterized by

replacement at varying degrees, of the mature adipose tissue by proliferation of collagen producing spindle cells.[6] Typical appearance of lipogenic tumors in the larynx are as submucosal yellowish or polypoid masses. Spindle cell lipoma is generally solitary and slow growing and becomes symptomatic at advanced stages of life.[8] It usually causes swallowing impairment, phonation problems, the sensation of a lump in the throat and rarely respiratory problems due to glottic obstructions. Diagnosis is often difficult due to indistinct symptoms.[5]

The preferred method of treatment for laryngeal lipogenic tumors is microlaryngoscopic excision. We used diode laser for excision of the tumor mass and had observed lesser postoperative edema with quicker recovery. There was no residual tumor mass left after the usage of laser.

So, we conclude that in our cases the tumors can just be labeled as hamartoma. These tumors are benign and complete excision is the treatment of choice.

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