Spindle Cell Lipoma of the Oropharynx and Hypopharynx

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Introduction

Lipomas occur infrequently in the upper aerodigestive tract. Lipomas of the oropharynx, hypopharynx, and larynx are uncommon, with approximately 100 cases reported in the literature. Spindle cell lipoma is a rare histological variant characterized by the presence of mature adipocytes and spindle cells. To our knowledge, only 4 prior cases of spindle cell lipoma specifically arising from the oropharynx or hypopharynx have been reported. We present a new case arising from the vallecula. This case highlights the propensity of this entity to recur and illustrates that the unusual histologic features may be absent on initial excision.

Case Report

A 60-year-old man presented with progressive recurrent dysphagia, voice change, and new symptoms of obstructive sleep apnea following three prior endoscopic debulking procedures for a pharyngeal mass. The mass recently demonstrated accelerated growth, raising concern for a malignant process. Flexible laryngoscopy and CT scan showed a large mass occupying the vallecula and obstructing the retroglossal airway (see imaging above). Direct laryngoscopy revealed the mass to be broadly based in the vallecula and extending inferolaterally to the lateral hypopharyngeal wall. The tumor was removed in a staged endoscopic procedure (intraoperative photos). The first stage removed only the hypopharyngeal component, which was excised in two pieces measuring 4.9cm and 2.1cm respectively. Pathology was consistent with lipoma with no abnormal features.

Preoperative view
Stage 1 procedure

A second stage procedure was performed 5 weeks later. The vallecular mass was excised in one piece, measuring 2.1 cm in the largest dimension. Sectioning of the specimen revealed white, dense, fibrous tissue. Histology showed areas of spindled fibrous proliferation extending into the fatty lobules, consistent with spindle cell lipoma.

Discussion

Intraoperative photos

Histologic section showing a mixture of mature fat cells and uniform spindle cells interspersed with mature collagen (H&E X40 original magnification)

Based on nearly 100 cases reported in the literature, hypopharyngeal and laryngeal lipomas are typically slow growing and remain asymptomatic for an extended period of time. Because of their location of origin and tendency to grow in a pedunculated fashion, some can hang into the esophagus, causing dysphagia or regurgitation. Symptoms are rare until they reach considerable size. Dysphagia is the most common presenting symptom. Other common symptoms include voice change and globus sensation. Less common symptoms include stridor or acute airway obstruction.

Most reported cases were excised via a transoral approach. The airway was usually managed conservatively without the need for tracheotomy. An external approach may be indicated in certain cases. Lipomas can recur more than a decade after the initial excision. Even though they are encapsulated, a lack of clear differentiation between normal fat of the pharynx and the lipoma may hamper complete excision. Recurrence can result from incomplete excision, though malignant degeneration or new lesion must also be considered.

Reference (abbreviated)


Histologic section showing a mixture of mature fat cells and uniform spindle cells interspersed with mature collagen (H&E X40 original magnification)