

Unusual Polypoid Laryngeal Myxoma

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Abstract

Laryngeal polyps, known as vocal cord polyps, are often benign, reactive, polypoid, squamous mucosa with subepithelial hyalinization and edematous stroma. Rarely, a benign mesenchymal myxoma occurring in the vocal cord will present as a polyp. It may have a local recurrence due to inadequate excision and result in airway obstruction. We report a case of a 46-year-old male who had a history of smoking and complained of hoarseness. A polypoid vocal cord mass was removed and the pathologic finding was a benign myxoma. To assure complete excision of the lesion, one should be aware that this rare entity may involve a laryngeal location.

Key Words: Laryngeal myxoma, polypoid mass, CD34.

Case History

A 46-YEAR-OLD AFRICAN-AMERICAN MALE presented with complaints of hoarseness to an ear, nose and throat clinic in Georgia. His medical history was remarkable for hepatitis C, but he was otherwise healthy. The patient had a smoking history that was not quantified. Flexible laryngoscopy in the office revealed a polypoid lesion of the right true vocal cord. Suspension microlaryngoscopy was performed. It was noted that the lesion started on the right true vocal cord and extended to the anterior commissure. The lesion was excised with microlaryngeal scissors, providing a widely patent airway. Esophagoscopy, performed at the time of surgery, showed no other mucosal lesions. Pathological diagnosis was rendered and the slides were sent to the Mount Sinai Medical Center for consultation.

Microscopically, the lesion was polypoid and covered by laryngeal squamous mucosa with hyperkeratosis and parakeratosis (Figs. 1 and 2). There was no evidence of dysplasia. The submucosa was occupied by an ill-defined myxomatous neoplasm with no capsule (Fig. 3). The tumor bulged under the overlying mucosa, giving it the appearance of a

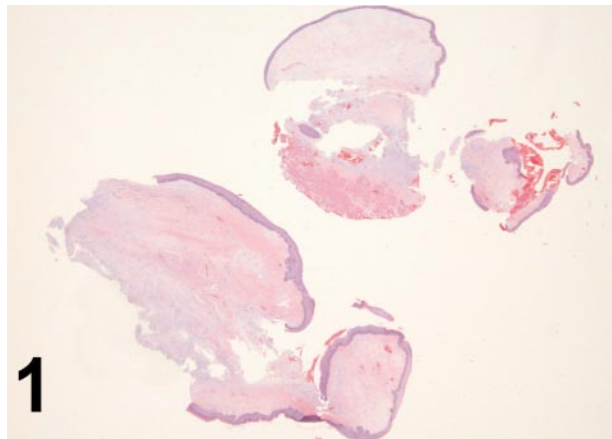


Fig. 1. Whole mount photograph showing a polypoid mass from vocal cord ($\times 5$, Hematoxylin-Eosin stain).

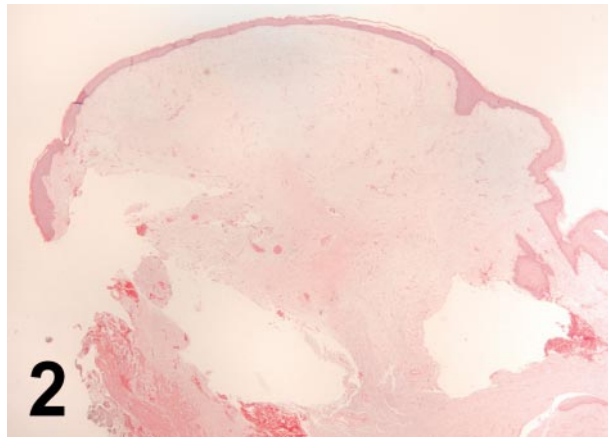


Fig. 2. Low magnification photomicrograph of laryngeal lesion, bulging the overlying squamous mucosa. No dysplasia is present in the surface squamous epithelium. Submucosa is occupied by a myxomatous lesion ($\times 20$, H-E stain).

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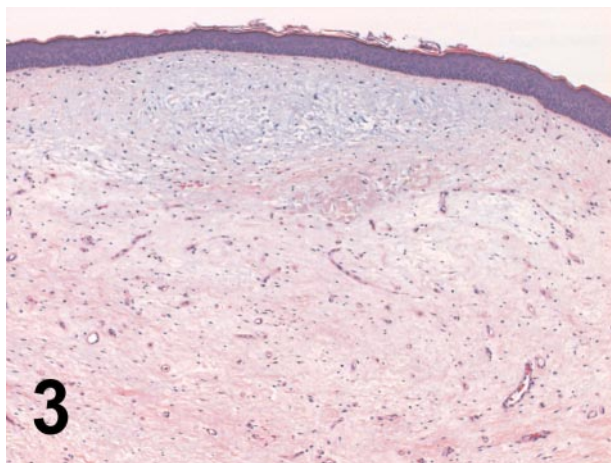


Fig. 3. Higher magnification showing myxomatous lesion with sparse spindled cells in a background of myxoid matrix ($\times 50$, H-E stain).

polyp, with extension to the base of the excisional margin. The length of the tumor was 8 mm. Histologically, the lesion was paucicellular and composed of spindled cells dispersed in a background of abundant basophilic myxomatous stroma. The cellular population seemed monotonous, with spindly nuclei and abundant eosinophilic cytoplasm without vacuolization. No cellular atypia, pleomorphism or mitotic figures were observed. A few delicate capillaries were identified inside the tumor, without tortuosity or telangiectasia. Few inflammatory cells, mostly lymphocytes, were identified in the stroma. No red blood cell extravasation, hemorrhage or necrosis was seen. The overall impression was that of a benign myxoid mesenchymal spindle-cell neoplasm. Immunohistochemistry for S100 protein and CD34 were performed using a Streptavidin-biotin kit (BioGenex, San Ramon, CA); both tests were strongly positive (Fig. 4). Radiographic imaging was recommended, to exclude the possibility of a low-grade malignant lipomatous or chondroid neoplasm. The final diagnosis was a benign myxoma of the larynx.

Comments

Myxomas are benign mesenchymal tumors that occur mostly in subcutaneous soft tissue, intramuscular tissue or cardiac chambers. When they occur in the head and neck region, they mainly involve maxilla and mandible, subcutaneous tissue, and parotid gland (1). Rarely, they occur in the nasal cavity and the larynx. There are only sporadic cases of laryngeal myxomas reported in the literature in English (2–7). Within the larynx, the vocal folds (5, 6), aryepiglottic fold (3) and epiglottis (2) have been described as locations.

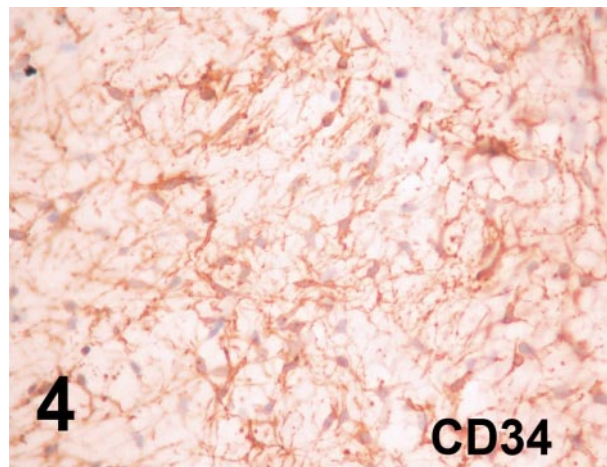


Fig. 4. Strong immunoreactivity of CD34 in tumor cells ($\times 200$, Streptavidin-biotin kit, immunohistochemistry).

Myxomas are considered benign lesions and classified under tumor and tumor-like conditions of undetermined histogenesis (8). Undoubtedly these are mesenchymal tumors, but unlike jaw myxomas, they are not of odontogenic origin. These soft tissue myxomas are thought to represent myxoid degeneration in tumors of mesenchymal origin (9). By gross examination, these lesions are usually polypoid in shape, and on cut section they show a glistening white matrix with gelatinous appearance. The tumor consistency ranges from very soft to moderately firm, depending on the cellular elements. The histologic appearance includes loosely dispersed stellate to spindle-shaped cells, with long, interlaced cytoplasmic processes lying in an abundant, poorly vascularized, mucopolysaccharide rich stroma and a variable meshwork of reticulin and collagen.

The most common clinical presentation is hoarseness and difficulty in breathing, which may be caused by airway obstruction requiring emergency tracheotomy (4). Supraglottic myxomas may become large and remain asymptomatic for a long time (9). Supraglottic myxomas as large as 6.5 cm have been reported (3, 10). Major differential diagnoses include myxoid degeneration of laryngeal polyp, which happens quite frequently and should be carefully excluded before rendering the diagnosis. Low-grade myxoid liposarcoma and chondrosarcomas can sometimes be very bland looking, and thus may mimic a myxoma. Correlation with radiographic studies is helpful. A more useful immunohistochemical stain is S100 protein, which is consistently negative for myxoma, but positive for lipoblasts and chondroblasts. Immunoreactivity of smooth muscle actin and CD34 can be seen in more than half of myxomas (11; Fig. 4).

Laryngeal myxomas can usually be excised endoscopically, but an external approach may

sometimes be required. In previous case reports, they have been described in vocal cords. Benign myxoma has a propensity for local recurrence, due to its tendency to infiltrate surrounding tissues. Intraoperative frozen section is very useful for immediate assessment of margin status. Other case reports have described microscopic margin involvement without recurrence after many years. Therefore, surgical treatment with an adequate margin appears to be curative, with no further treatment other than follow-up (3).

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