INTRODUCTION

Inflammatory myofibroblastic tumors of the larynx are rare lesions with only 21 reported cases in the English literature. Other names have been used to describe these lesions including inflammatory pseudotumors, plasma cell granulomas, and pseudosarcomatous tumors. These tumors can be confused with similarly presenting malignancies, although their management differs significantly. We present a representative case and highlight the current literature regarding management of this unusual tumor.

CASE PRESENTATION

A 41 year old male presented to the emergency department at our institution with a history of progressive biphasic stridor and dyspnea. Flexible fiberoptic laryngoscopy revealed a non-ulcerated smooth mass involving the left vocal cord with no other apparent laryngeal abnormality. CT scan demonstrated a well circumscribed round mass measuring 13.8mm by 11.8mm by 11.5mm and causing a pronounced mass effect on the glottic airway. There was no clinically apparent adenopathy. The patient was taken to the operating room for tracheostomy tube placement and direct laryngoscopy with biopsy. Intraoperatively, the mass was noted to have discrete, defined borders with no mucosal involvement, and a plane was easily developed around the capsule. A submucosal excision was performed. Pathology returned inflammatory myofibroblastic tumor. No further treatment was recommended. The patient was decannulated shortly thereafter and has no clinical evidence of recurrence at 14 months post op. Voice quality is at premorbid baseline and he has no dysphagia.

DISCUSSION

These benign proliferative lesions can mimic malignant processes and demonstrate a range of histopathologic features varying from plasma cell rich lesions to those dominated by myofibroblasts. Histopathologic features can vary, however the spindle cells are typically positive for vimentin and smooth muscle actin, variable for s-100, and ALK, and negative for keratins, desmin, and CD34. Inflammatory myofibroblastic tumors were originally described in the lung, and have subsequently been described in a variety of other sites including intraabdominal, genitourinary, nervous, and head and neck. Of those tumors located in the larynx, more than 80% are confined to the glottis. Differential diagnoses include benign and malignant spindle cell neoplasms.

Multiple treatment modalities have been proposed for the treatment of inflammatory myofibroblastic tumors. Of late, the preference has been conservative endoscopic resection of the tumor with or without cordectomy. Of the two recurrences reported after endoscopic resection, one was successfully treated with re-excision, and the other was particularly aggressive requiring re-excision, adjuvant radiation, and ultimately laryngectomy. Some have advocated the use of high dose steroids as adjuvant treatment based on success at other subsites. There have also been reports of three cases of laryngeal inflammatory myofibroblastic tumors treated with steroids alone without recurrence. Radiation treatment has also been suggested both as primary therapy and as an adjuvant, again based on treatment at other subsites. Few laryngeal cases have been treated with primary radiation, and of those at least one recurrence has been reported.

CONCLUSIONS

Based on available evidence, conservative endoscopic excision appears to be the most appropriate first line therapy for these lesions. This approach yields a low recurrence rate while providing a good functional outcome. Our experience with this case would appear to support the observations of prior authors. These lesions are uncommon, but the otolaryngologist should be aware of their diagnosis and management as treatment differs significantly from similar appearing malignancies.

REFERENCES