Pediatric Nasopharyngeal Fibrolipoma: A Case Report and Review of the Literature

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Abstract

Objectives: To present the clinical features and management of nasopharyngeal fibrolipoma by illustrating a rare pediatric case.

Study Design: Case report and literature review.

Methods: We report a unique case of a pediatric patient with nasopharyngeal fibrolipoma treated with endoscopic assisted transoral surgical excision.

Results: A 3-year-old female presented for evaluation of progressive snoring since birth. She exhibited multiple symptoms of sleep-disordered breathing and had a history of non-recurrent otitis media. On exam, she was found to have a firm, immobile, submucosal mass of the right nasopharynx. MRI revealed a fatty-appearing mass measuring 2.4 cm x 1.5 cm x 3.0 cm arising from the prependicular space of C1 and extending anteriorly through the prevertebral and retropharyngeal spaces. CT confirmed involvement of the anterior spine without bony violation into the spinal canal. The patient subsequently underwent endoscopic transoral excision with 0 and 30 degree endoscopes and neurosurgical team available. Intraoperatively, the mass was mobilized using electrocautery and blunt dissection until the interdental space was reached. At this point, the remnant deep interdental attachments were removed allowing complete release of a well-encapsulated, pink-tan, rubbery mass. Pathological analysis yielded a diagnosis of fibrolipoma. One month following surgery, snoring and apnea resolved with no hypernasality or velopharyngeal insufficiency. Twelve months post-surgery, the patient continues to function well with no evidence of recurrence on CT.

Conclusions: Nasopharyngeal fibrolipoma is an extremely rare diagnosis in the pediatric population. Very few case reports exist in the literature, and this is the first report of one-year, CT-confirmed disease resolution in a pediatric patient to our knowledge.

Introduction

- Lipomas are benign painless soft tissue masses most commonly found in the subcutaneous tissue of the neck and trunk.
- Fibrolipoma is a subtype of lipoma characterized by a fibrous component intermixed with lobules of adipocytes.
- Nasopharyngeal tumor presentation is extremely rare with only a few cases reported internationally.

Methods and Materials

- We report a unique case of pediatric nasopharyngeal fibrolipoma treated with endoscopic transoral surgical excision at our center.
- We present histological images, as well as preoperative, intraoperative, and postoperative imaging.
- A comprehensive literature review was also performed using the MEDLINE database via PubMed.

Results

- A 3 year-old female presenting with sleep-disordered breathing was found to have a firm submucosal mass of the right nasopharynx on examination.
- MRI and CT imaging confirmed a 2.4 cm x 1.5 cm x 3.0 cm mass arising from the prependicular space of C1 and extending anteriorly through the prevertebral and retropharyngeal spaces with involvement of the anterior spine.
- A pink-tan rubbery mass was excised using an endoscopic transoral approach to the deep interdental space.
- The mass weighed 6.72 grams and had a yellow-tan and glistening cut surface, traversed by thin white fibrous septae. Histological analysis confirmed the diagnosis of fibrolipoma.
- The patient recovered from surgery without any complications. She continues to remain asymptomatic with no evidence of recurrence on CT twelve months post-surgery.

Conclusions

- This is the first report of nasopharyngeal fibrolipoma in a pediatric patient reported in North America.
- Although rare, fibrolipoma should be considered in the differential for nasopharyngeal masses.
- Nasopharyngeal fibrolipoma can be successfully treated with an endoscopic transoral surgical excision approach.

Discussion

- Five reports of nasopharyngeal fibrolipoma were discovered in the international literature ranging from 1979-2013 involving patient cases in Russia, India, and China.
- Two recent reports of fibrolipoma with Eustachian tube involvement were found; both cases involved adult patients.
- Only two pediatric cases from Russia and India have been reported with patients presenting at 1 month and 20 months of age, respectively.

References