ABSTRACT

In the pediatric population, expansile lesions of the maxilla are a rare entity and there is a paucity of information in regards to their epidemiology, proper methods of diagnosis, surgical excision and post-operative care. These lesions have a broad range of causes and can be stratified in various ways: benign versus malignant, infectious versus non-infectious and odontogenic versus non-odontogenic. For the purpose of this study, large expansile lesions of the maxilla were defined as tumors larger than 2 cm with mass effect on the orbit, skull base, soft/hard palate, premolar/secondary tissue, or a combination of the above. Over the last 5 years, 3 patients were identified with large, rapidly enlarging maxillary masses in our otolaryngology clinic. All 3 children required surgical excision which, along with their work-up and post-operative care, was tailored to each individual’s unique presentation as described below.

INTRODUCTION

Patient 1.
A 3 year old female presented to our emergency room after traveling to the US from the Dominican Republic (DR) 3 days prior. Her family noted the patient to have a rapidly expanding left facial mass that had developed 8 months prior. Biopsies of the mass had been taken and orbital decompression had been performed in the DR but no excision was attempted and biopsy results were not available. Associated symptoms included nasal obstruction with poor sleep, weight loss secondary to decreased PO intake, worsening irritability and facial discomfort. Examination revealed a large left-sided facial mass arising from the left maxilla and resulting in marked proptosis of the left eye, complete obstruction of the left nasal cavity and hard palate bowing. Radiologic work-up confirmed physical exam findings. (see Figure 1)

WORK-UP & HISTOPATHOLOGY

Following imaging, each patient was taken to the OR for biopsy. Table 1 details the work-up, methods of surgical excision and histopathology case. Of note, the care of each patient included a multidisciplinary approach with teams from oral maxillofacial surgery, dentistry, ophthalmology and plastic surgery assuming their own role in the treatment process.

OUTCOMES

Patient 1. Underwent complete surgical excision without any further treatment. Has been seen for routine surveillance and has undergone serial nasal endoscopies with debridement with no evidence of recurrence. Will likely need future reconstruction but has minimal enophthalmos and no visual complaints at this time.

Patient 2. Given the atypical features of this patient’s pathology, there remained ambiguity in the classification of his lesion despite consultation with expert pathologists at another facility. The pathologists did agree that the patient’s lesion would be best managed as a low grade sarcoma. Following excision, he underwent chemotherapy and radiation. Follow-up imaging after radiation and chemotherapy showed no recurrence of the maxillary lesion.

Patient 3. Was seen in our office twice following excision with no complaints. Has since been lost to follow-up.

CONCLUSION

The majority of maxillary and mandibular lesions in the pediatric population are benign, resulting from many different causes and manifesting in a variety of clinical presentations. Often, these lesions are asymptomatic and are discovered on routine radiographs or when the patient presents with localized swelling. Thus, diagnosis is often challenging and resection varies dramatically and on a case-by-case basis. Initial imaging and histopathology should be the first step in planning as they help to guide the physician to determine a plan of action for resection, avoiding unnecessary aggressive excision or overly conservative resection. In the case of our 3 patients, each patient underwent initial imaging followed by biopsy which guided us in performing the appropriate surgical excision with successful post-operative outcomes.

REFERENCES