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Osteocartilaginous Choriostoma of Palatine Tonsil: a Rare Hidden Entity

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ABSTRACT

A choriostoma is an aggregate of microscopically normal cells or tissues which occurs in an aberrant location. It follows a benign course, rarely seen in head and neck region. A choriostoma of the palatine tonsil is very rare; less than 10 cases were reported till date. A 11-year-old male referred to ENT OPD with chronic tonsillitis and underwent tonsillectomy. The histopathological examination revealed the unexpected presence of cartilage and bone in both tonsils.

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Introduction

Choriostoma is defined as a histologically normal tissue proliferation or nodule of a tissue type not normally found in an anatomic site of proliferation (1). It follows a benign course, rarely seen in head and neck region. It has been reported in the pharynx, hypopharynx, oral mucosa and middle ear (2). Osseous and cartilaginous choriostoma are the most frequently observed choriostoma in oral cavity and shows a striking predilection for the posterior part of tongue (3). Cartilaginous choriostoma of oral cavity is also frequently seen in the tongue, followed by buccal mucosa and soft palate (4). A choriostoma of the palatine tonsil is very rare; less than 10 cases were reported till date (5). Here we reported a case of chronic tonsillitis with osseocartilaginous choriostoma.

Case Report

An 11-year-old male child referred to ENT Department with the chief complaints of recurrent episodes of throat pain, fever, difficulty in swallowing, halitosis and burning sensations in the throat since early childhood. On local examination, tonsils were enlarged and inflamed, covered with white flakes of purulent exudates. On palpation they were firm and gritty. A clinical diagnosis of chronic tonsillitis was made. Bilateral tonsillectomy was performed and the specimen was received in the Pathology Department for histopathological evaluation.

Grossly, excised right and left tonsils were globular, gray brown, firm and gritty in consistency with the sizes 2.5x1.5x1.0 cm and 2.0x1.0x1.0 cm, respectively. Cut surface was gray brown and smooth with glistening area measuring 0.5 cm (Figure 1).

On microscopic examination, both tonsils were shown to be covered by stratified squamous epithelium with follicular hyperplasia and the intervening crypts showing keratinous flakes (Figure 2). There were many islands of mature hyaline cartilage and bone surrounded by lymphoid follicles along with the areas of fibrosis (Figure 3). A diagnosis of osteocartilaginous choriostoma of palatine tonsil was made.

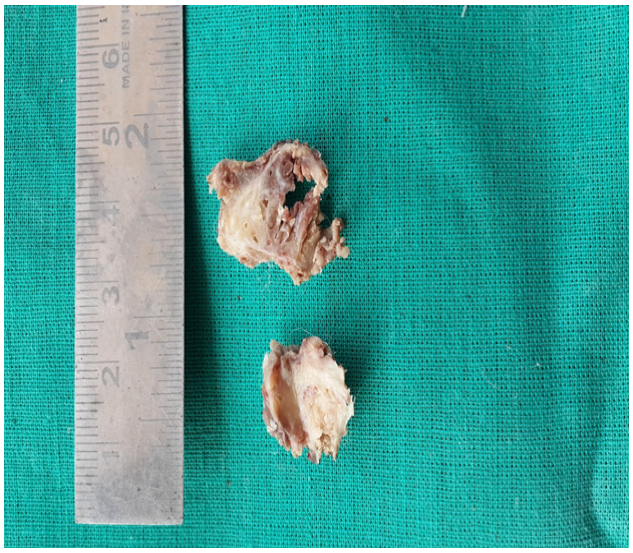

Figure 1. Gross features of bilateral tonsils showing a gray white cut surface.

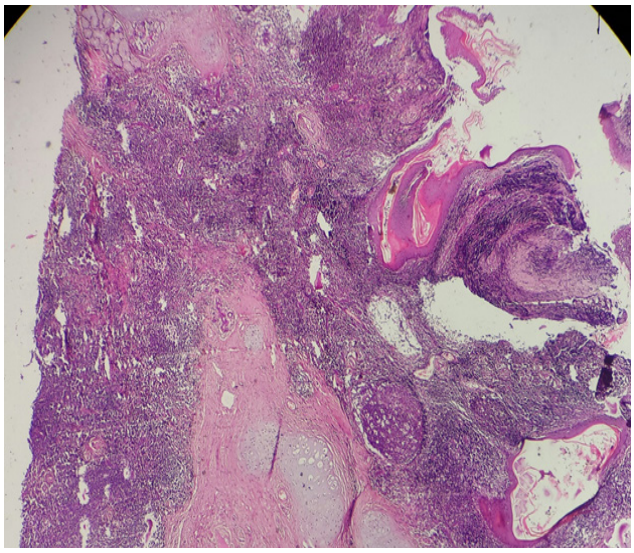

Figure 2. Photomicrograph showing stratified squamous epithelium with follicular hyperplasia and the intervening crypts showing keratinous flakes (H&E, 100X).

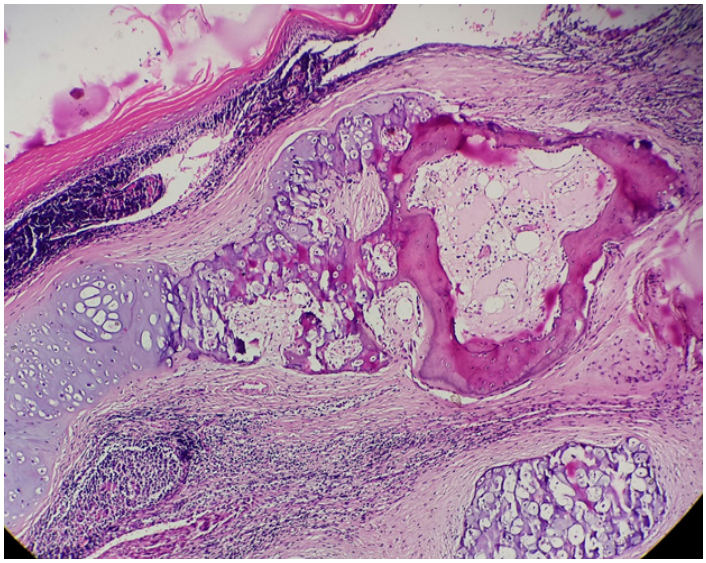

Figure 3. Photomicrograph showing islands of mature hyaline cartilage and bone surroun ded by lymphoid follicles along with the areas of fibrosis (H&E, 400X).

Discussion

Choriostoma is defined histologically an island of normal tissue that is presented in an aberrant location. It was first described by Berry in 1890 (6) and occurs between 10 to 80 years of age. (1).

The neck is developmentally complex with frequent embryologic anomalies. Heterotropic tissue as hamartoma or choriostoma is another interesting finding (7) Choriostomas of the head and neck regions are rare benign lesions and have a predilection for the oral cavity especially the dorsum of tongue (3).

Cartilaginous choriostoma of the tonsil appears to be a developmental anomaly in the second pharyngeal arch (8). Erkilic et al. reported a 3% incidence of cartilaginous choriostoma on tonsillectomy specimen found during histopathological examination of excised tonsils due to chronic tonsillitis (9).

Although, the natural history of this lesion is not clear, there are various hypotheses/ theories proposed for the pathogenesis of choriostoma. Haemel et al. suggested the differentiation of multi-lineage mesenchymal progenitor cells (2). Lindhalm et al. proposed that chronic inflammation may lead to liberation of osteogenic substances which induced heterotropic bone formation and heterotropic cartilage prolifera-

tion (10). Few others opine that extraskeletal proliferation of cartilage in oral cavity and maxillofacial soft tissue probably reflects the multipotent nature of primitive mesenchymal cells which may be stimulated to grow by trauma, irritation or inflammation (8).

Differential diagnosis includes the cartilaginous metaplasia. Cartilaginous metaplasia is usually seen in the soft tissue of oral cavity beneath poorly fixed dentures. Histopathologically, it is characterized by diffuse dystrophic calcification zones and single or clustered cartilage cells at different stages (11).

Simple excision of the lesion with the surrounding perichondrium is essential because it may have potential to develop new bone formation and cartilage proliferation (12).

Although recurrences have not been documented in the head and neck, some extraoral cases have been reported to get recurrent (13).

Conclusion

Osteocartilaginous choriostoma of tonsils is a rare hidden entity and comprises a very small minority of nasopharyngeal masses. A high index of suspicion is required while evaluating the patient of chronic tonsillitis. They may cause difficulty in the differential diagnosis of true neoplasm, if they are large in size with the possibility of growing.

Conflict of interest

All authors declare that there is no conflict of interest regarding the publication of this article.

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