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Case Report

Bilateral tonsillar osteocartilaginous choristomas: A case report

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Abstract

Osteocartilaginous choristomas are rare, benign lesions characterized by the presence of mature bone and cartilage in ectopic sites. While these lesions are commonly found in the head and neck region (particularly tongue) their occurrence in the tonsil is exceedingly rare. We present a case of a 26-year-old female with an incidental finding of bilateral tonsillar osteocartilaginous choristomas during evaluation for multiple episodes of tonsillitis. The patient underwent surgical excision with a favourable outcome. This report aims to highlight the clinical presentation, diagnostic challenges, and management of this rare entity, along with a review of literature.

Keywords: Tonsil, Benign tumor, Tonsillectomy.

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1. Introduction

A choristoma is a tumor-like growth of microscopically normal tissue in an abnormal location.[1] Osteocartilaginous choristomas are defined as benign growths of mature bone and cartilage at ectopic sites. These lesions are found in head and neck region, and are frequently described in the oral cavity, particularly the posterior aspect of tongue.[1,7] A choristoma of the palatine tonsil is very rare; around 10 cases were reported till date.[2] This report presents a case of bilateral tonsillar osteocartilaginous choristomas in a 26-year-old female, presenting with multiple episodes of tonsillitis for 2 months.

2. Case Presentation

A 26-year-old female presented to the otolaryngology clinic with a history of recurrent throat pain, dysphagia (difficulty in swallowing), and intermittent fever for the past two months. The episodes were not associated with significant weight loss, night sweats, or other systemic symptoms. The patient denied any prior history of chronic tonsillitis or previous surgeries. On local examination, both palatine tonsils appeared fibrotic and slightly enlarged. The tonsils were non-tender on palpation, with no signs of erythema or exudate. There was no cervical lymphadenopathy. The rest of the oropharyngeal examination was unremarkable. Given the recurrent symptoms and fibrotic appearance of the tonsils, a bilateral tonsillectomy. The excised tonsils were sent for histopathological examination to determine the underlying pathology.

Pathological findings: Gross examination: The excised specimens consisted of two tonsils: Right tonsil: Measured 2.0 x 1.0 x 0.4 cm, Left Tonsil: Measured 2.8 x 1.4 x 0.5 cm. The external surfaces of both tonsils were rough and irregular. On the cut section, the internal surfaces of both tonsils revealed pale bluish gritty nodules (**Figure 1**). The nodules were well-demarcated and varied in size, with a firm consistency. Microscopic examination: Bilateral tonsils showed large islands of mature hyaline cartilage and osteoid amidst reactive lymphoid follicles (**Figure 2**, **Figure 3**). A diagnosis of bilateral tonsillar osteo-cartilaginous choristomas was made.

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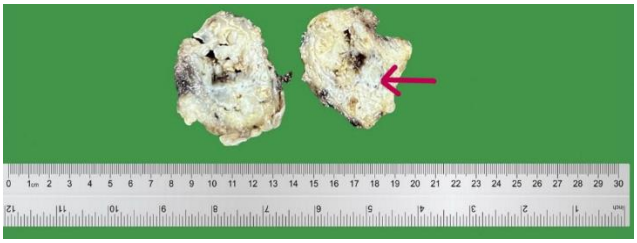

Figure 1: Cut surface of bilateral tonsils showing pale bluish white nodules. (Marked with red arrow)

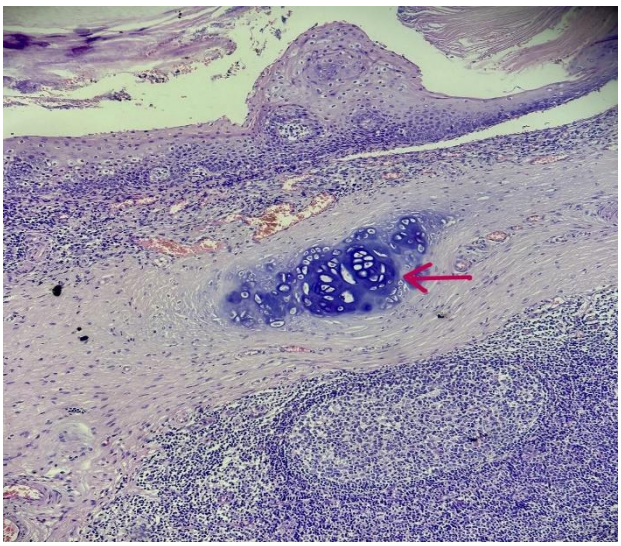

Figure 2: Microscopic image of tonsil showing chondroid nodule. (H&E, 100x) (Marked with red arrow)

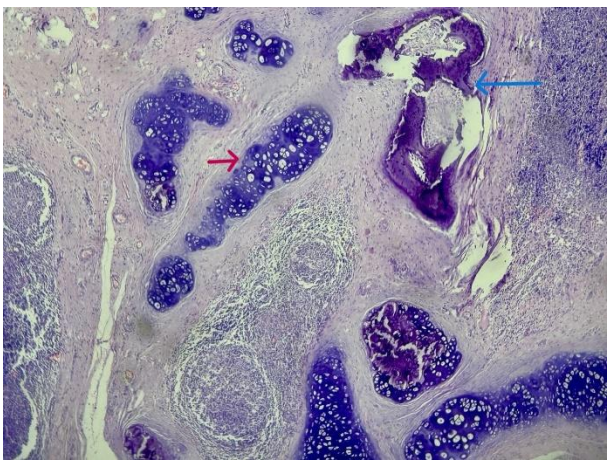

Figure 3: Microscopic image of chondroid and osteoid nodules amidst reactive lymphoid follicles. (H&E, 100x) (Marked with red and blue arrows respectively)

3. Discussion

There are several hypotheses for the pathogenesis of choristoma. Neck is complex in development and hence frequently associated with embryological anomalies. Choristoma of head and neck with predilection to the oral cavity is thought to be a developmental anomaly yet no definite etiopathogenesis has been described. Tonsils develop from the lateral part of the lateral pharyngeal arch an anomaly during the development may cause abnormal mesenchymal tissue in the tonsil.[3] Partihiban et al study suggested that choristomas of tonsil are related to a developmental anomaly of second pharyngeal arch and may cause recurrent tonsillitis.[4]

Haemal et al suggested differentiation of multilineage mesenchymal progenitor cells as a cause of choristoma in tonsil.[5] Growth of multipotent mesenchymal cells may be stimulated by inflammation, trauma or irritation. Such denovo lesions[2] may seldomly appear in the nasopharynx. Differential diagnosis of osteocartilaginous choristomas includes chondroid/ 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 of maturation.[6]

Thus, osteocartilaginous choristomas is suspected, when a patient with chronic tonsillitis is being evaluated[8] and is confirmed by histopathological examination, which demonstrates the presence of mature bone and cartilage.

Surgical excision is the treatment of choice and is generally curative. The prognosis is excellent, with no reported cases of malignant transformation or recurrence following complete excision.

4. Conclusion

A minority of nasopharyngeal masses are osteocartilaginous choristomas of tonsils. Awareness of this entity can lead to accurate diagnosis and appropriate management. Surgical excision remains the treatment of choice. Choristomas have a favourable outcome with no risk of recurrence or malignant transformation.

5. Source of Funding

None.

6. Conflict of Interest

None.

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