Cartilaginous Choristoma of Palatine Tonsil

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Abstract:

Choriostoma is a mass of histologically normal tissue in an abnormal location. It is a developmental anomaly of second pharyngeal arch, follows a benign course and could be the cause of recurrent tonsillitis. Here, we report a case of 36 year old male who presented with recurrent episodes of tonsillitis. Histopathology revealed islands of mature hyaline cartilage surrounded by lymphoid follicles along with areas of calcification.

Key words: Cartilaginous choristoma; Tonsillitis

Introduction

Choristoma is histologically an island of normal tissue that occurs at abnormal location [1]. Here, we report a case of 36 year old male who presented with recurrent episodes of tonsillitis. On histopathological examination, rare occurrences of islands of mature hyaline cartilage were found surrounded by lymphoid follicles along with areas of calcification.

Case Report

A 36 yr old male presented in E.N.T. clinic with 4 years history of snoring, sleep apnea and helitosis. The patient was free from other otological signs and symptoms. Oral examination revealed enlarged palatine tonsils and inflammatory exudates over the external surface of tonsils [Fig.1]. There was absence of lymphadenopathy, signs of cranial nerve deficit or other clinically significant findings. The patient was started on antibiotics and serial follow up revealed persistently inflamed tonsils with intermittent purulent exudates. Tonsillectomy was performed in view of persistent symptoms due to progressively enlarging and infected tonsils. The tonsils extended upto the lateral aspect of nasopharynx. Palpation revealed, firm & gritty tonsils that led to considerable difficulty during removal. The histopathological examination was remarkable with evidence of hyaline cartilaginous differentiation with follicular hyperplasia and areas of calcification [Fig.2].

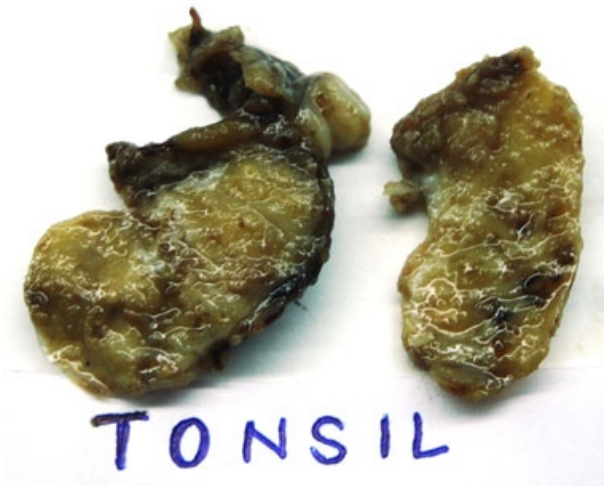

Figure 2: Gross appearance of Tonsils showing shiny, glistening cut surface.

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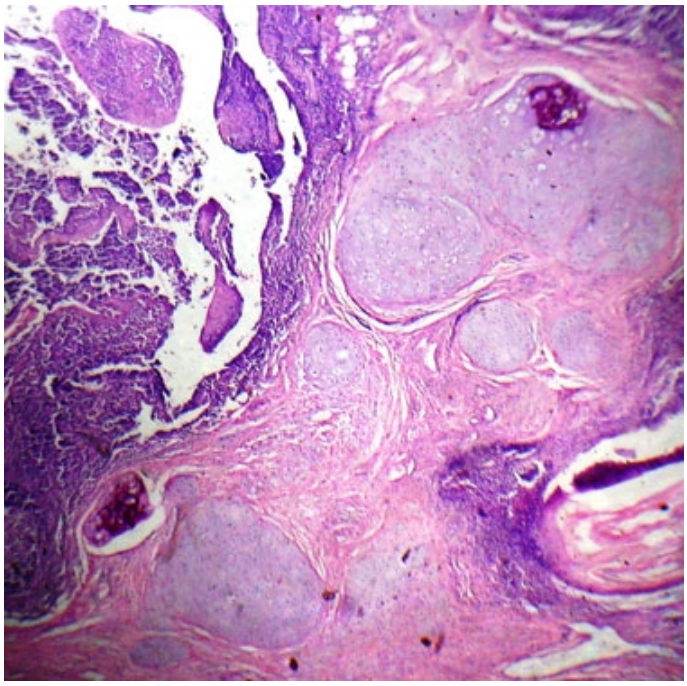

Figure 2: Microscopic appearance showing islands of mature hyaline cartilage with lymphoid follicles and focal areas of calcification (100X,H&E).

Discussion

Cartilaginous choristoma was first described by Berry in 1890 [2]. The age group ranges widely from 10 to 80 years. These lesions of cartilaginous choristoma in the head & neck region show predilection for oral cavity. One series identified 20 such cases, 7 of which involved the tongue, with other less common sites including the buccal mucosa & soft palate [2]. Cartilaginous choristoma is more commonly found on the dorsum of the tongue, but 4 cases have been found on ventral aspect, which has predilection for female sex. Choristomas of palatine tonsils do not have sex predilection [3]. In addition to bone and cartilage, choristoma of glial cells and choroids plexus have been reported by Nausheen *et al* [4]. The choristoma of head and neck is a rare lesion and the cartilaginous choristoma within the tonsil has been reported [2,5].

Several theories that explain the cause of lesions include cartilaginous development from heterotopic foetal cartilaginous remnants and development from pluripotential mesenchymal cells stimulated to grow by trauma, irritation or inflammation or it may be a developmental anomaly in the second pharyngeal arch [6]. A unique cartilage producing form of this tissue level disorder is found in the edentulous ridge of denture wearer especially in the anterior maxilla [6].

Cartilaginous choristoma should be distinguished from cartilaginous metaplasia which usually occurs in the soft tissue beneath ill fitting dentures. The cartilaginous metaplasia is histologically characterized by the diffuse deposits of calcium and scattered cartilaginous cells arranged in various stages of maturation in single or clustered cartilaginous foci. In our case, small area of calcification was present, but majority of the tonsil was occupied by mature hyaline cartilage. Mature cartilage is not a normal constituent of nasopharyngeal epithelium and, therefore, by definition, the lesion in this case represents a choristoma. Complete surgical excision is the preferred mode of treatment for nasopharyngeal choristoma.

In view of recurrences seen in certain extraoral cartilaginous choristoma, excision should involve removal of perichondrium, because it may have the potential to develop new cartilage. It is a developmental anomaly of second pharyngeal arch, follows a benign course and could be the cause of recurrent tonsillitis. Our patient had a symptomatic cartilaginous mass that presented as tonsillar hypertrophy. The presence of choristoma in nasopharynx remains a rare entity and comprises a small minority of all nasophyaryngeal masses. This case illustrates the importance of high index of suspicion for choristoma when evaluating a patient with recurrent tonsillitis.

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