Choristoma of the Palatine Tonsil A Case Report

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ABSTRACT

Choristoma is a tumor like mass consisting of the tissues foreign to the site at which they are located. Choristoma or heterotopias are aggregates of microscopically normal cells or tissues in aberrant locations. The word choristoma implies a neoplasm whereas heterotopia refers to displaced tissue without necessarily being a swelling or neoplasm. Since the present case has tonsillar enlargement we have used the term choristoma rather than heterotopia. We report a 15 year old female presenting with persistent tonsillitis. Histological examination demonstrated the unexpected presence of a mature island of hyaline cartilage surrounded by lymphoid hyperplasia.

KEY WORDS Choristoma, Tonsillitis, hyaline, hyperplasia.

INTRODUCTION

Choristoma is histologically an island of normal tissue that occurs in an abnormal location[1]. Choristoma in the head and neck region was reported in the pharynx, hypopharynx, oral mucosa and middle ear[2-4]. There were cartilage, bone, glial, meningeal, salivary gland and thyroid tissues. Multipotent mesenchymal progenitor cells have been reported by Haemel et al.[4] Here we report a case of chronic tonsillitis with cartilaginous Choristoma. On histological examination, mature islands of hyaline cartilage were surrounded by lymphoid hyperplasia.

CASE REPORT

A 15 year old female presented to the otorhinolaryngology department with a history of recurrent sore throat, pain, fever and painful swallowing. Physical examination revealed an enlarged palatine tonsil covered by inflammatory exudates. The remainder of the head and neck examination was free of mass lesions, lymphadenopathy, cranial nerve deficit and any other significant findings. The patient received oral antibiotics for presumed tonsillitis. At serial follow ups the tonsil remained inflammmed. Because of persistent symptoms and enlarged tonsils, a bilateral

Figure 1 Showing microscopic picture of palatine tonsil wherein the submucosal cartilage is not encapsulated and shows no signs of dysplasia.

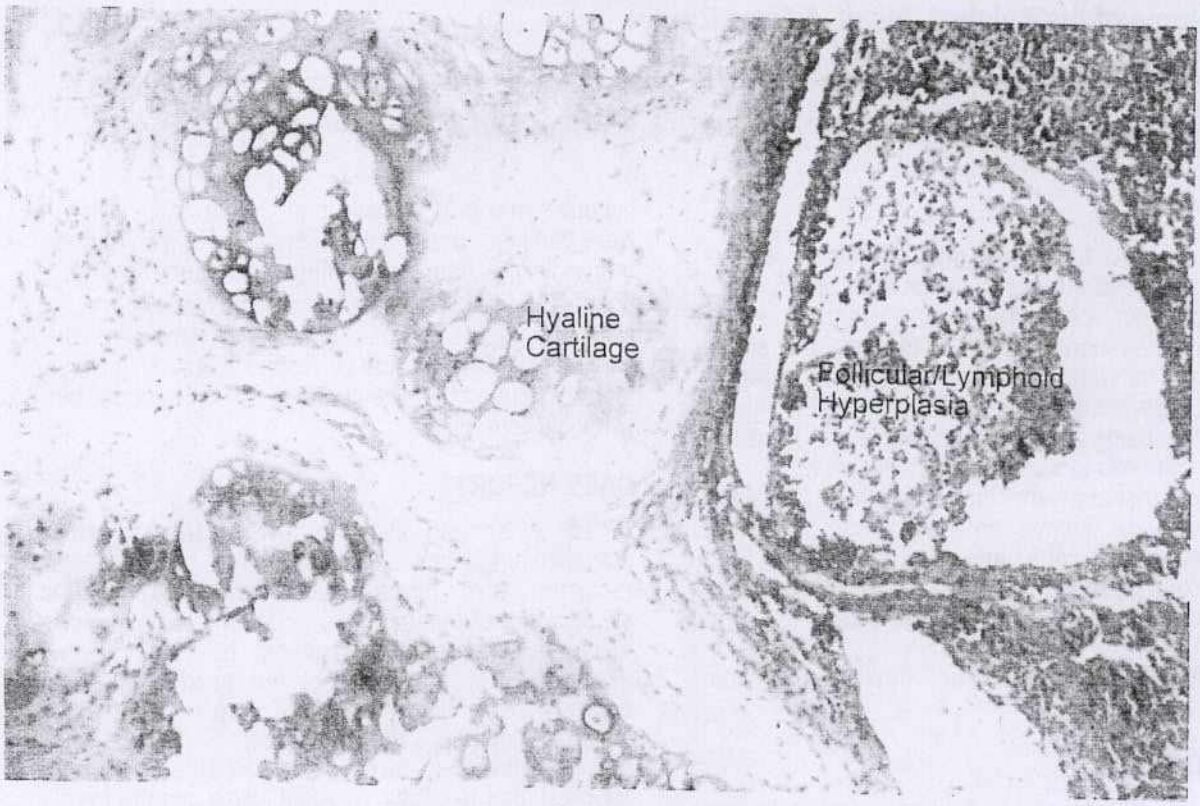

Figure 2 Microscopic picture of palatine tonsil showing follicular/lymphoid hyperplasia along with islands of mature hyaline cartilage.

tonsillectomy was performed and the specimen was sent for histopathological examination.

The tonsils were located in the lateral aspects of the nasopharyngeal wall. On palpation they were firm and gritty and were removed with considerable difficulty. Histopathological examination of the specimen was remarkable for the follicular hyperplasia in association with islands of mature hyaline cartilage as cartilaginous choristoma in palatine tonsil.

DISCUSSION

Cartilaginous choristoma was first described by Berry in 1890. Age of the diagnosis for these patients varied greatly ranging from 10 80 years. Cartilaginous choristoma in the head and neck region have a predilection for the oral cavity. One series identified 20 such cases, 7 of which involved the tongue, with the other less common sites including the buccal mucosa and the soft palate. Bhargava et al[5] and Kapoor et al[6] reported that the choristoma of the head and neck region was a rare lesion and described the cartilaginous choristoma within the palatine tonsil. They also highlighted that routine histopathological examination of tonsillar tissue in the absence of worrisome clinical symptamology is unnecessary while we feel that neglecting microscopic analysis just by clinical findings would hamper the understanding of various rare entities like the choristoma reported in this study. We report the findings from a patient who had a symptomatic cartilaginous mass that presented as tonsillar hypertrophy. A unique cartilage producing form of this tissue level disorder is found in the edentulous ridge of a denture wearer especially in the anterior maxilla.[7] Presumably trauma induced this self limiting cutright tumor (Chondromatous metaplasia), may produce pressure atrophy of the underlying bone in addition to the cartilage . Cartilaginous choristoma should be distinguished from cartilaginous metaplasia which usually occurs in the soft tissue beneath ill fitting dentures. The latter is characterized histologically by the diffuse deposits of calcium and scattered cartilaginous cells arranged in various stages of maturation in single or clustered cartilaginous foci. Complete surgical excision is the preferred treatment of nasopharyngeal choristoma with attention directed to maintaining a patent airway. Although recurrence has not been documented in head and neck, some oral cases have been reported to be recurrent so perichondrium should be removed because it may have the potential to develop new cartilage.

De Novo development of this lesion is rare in nasopharynx. Natural history of this lesion is undefined and will probably remain so[8]. In addition to bone and cartilage tissue, Choristoma of neural origin composed

of glial cells and a choroid plexus have been reported by Nausheen et al.[9] Cartilaginous Choristomas are frequently found on the dorsal tongue but four cases have been found on the ventral tongue. They are more common in females. Choristomas of Palatine tonsil do not have a sex predliction[10].

Overall, to conclude, cartilaginous choristoma in the nasopharynx remains a rare entity and comprises a small minority of all nasopharyngeal masses. However it is expected to follow a benign course as normal cartilage elsewhere in the body. Mechanism of pathogenesis of heterotopia was suggested by Lindholm et al[11]. Cartilaginous choristoma of the tonsil appears to be a developmental anomaly in the second pharyngeal arch and could be one of the causes of recurrent tonsillitis. According to Dr William Hill cartilage cells were normal in fibrous framework of the tonsil especially in the young. Abnormal developments of these cartilaginous areas were rare. According to Dr Irwin Moore cartilage cells were always found in the connective tissue structures of the tonsil, and never in the lymphoid tissue and that these were cartilaginous islands surrounded by perichondrium. Again the cartilage was always of embryonic origin[12]. Haemel et al[4] have demonstrated the multilineage potential of mesenchymal progenitor cells to be able to differenciate into various mesenchymal lineages supporting our hypothesis.

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