



Cartilaginous Choristoma In Palatine Tonsil: Two Case Reports

Pathology

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ABSTRACT

A mass of histologically normal chondroid tissue in an abnormal location is defined as cartilaginous choristoma. It is a developmental anomaly of second pharyngeal arch, follows a benign course and can lead to recurrent tonsillitis. Here we report two cases of middle aged females, both presented with recurrent episodes of tonsillitis. Tonsillectomy was performed. Histopathology revealed unexpected presence of islands of mature hyaline cartilage surrounded by lymphoid follicles along with areas of calcification.

KEYWORDS:

Choristoma tonsil, Cartilagenous Choristoma.

INTRODUCTION

Choristoma is defined as a mass of histologically normal tissue that occurs in an abnormal location^[1]. It differs from heterotopia which is a displaced tissue from its normal site which might necessarily not present as a swelling or neoplasm. Choristomas in the head and neck region have been reported in pharynx, hypopharynx, oral cavity and middle ear^[1]. The heterotopic tissue may include cartilage, bone, glial, meningeal, salivary gland and thyroid tissue^[2]. However, cartilaginous choristomas of tonsils are more common than the rest but only few cases have been reported so far. The present communication describes two cases of cartilaginous choristoma.

CASE 1

A 22 year old female presented to the ENT OPD with complaints of snoring, sleep apnoea and halitosis of 6 month duration. Clinical examination revealed hypertrophy of bilateral palatine tonsils. Rest head and neck examination was normal. A clinical diagnosis of chronic tonsillitis was made. Tonsillectomy was performed keeping in view the persistent symptoms of the patient. The specimen was sent for histopathological examination. Grossly two greyish brown soft tissue pieces each measuring approximately 3x2x1 cm were received. The cut surface was smooth homogeneous brown. Microscopically the biopsy was covered by stratified squamous epithelium which at places had invaginated into deeper tissues forming bunt ended crypts. In subepithelial region islands of mature hyaline cartilage surrounded by lymphoid follicles, with focal areas of calcification were seen embedded in fibro collagenous tissue. A diagnosis of cartilaginous choristoma was made (Fig. 1).

CASE 2

A 30 year old female presented to the ENT OPD with complaints of on and off sore throat and fever since 8 month. Clinical examination revealed hypertrophy of bilateral palatine tonsils and were covered by whitish flakes. Rest head and neck examination was unremarkable. A clinical diagnosis of chronic tonsillitis was made in this case also. Tonsillectomy was performed keeping in view the persistent symptoms of the patient. The specimen was sent for histopathological examination. Grossly two greyish brown soft tissue pieces measuring approximately 3x2x1 cm and 3x1x1 cm were received. The cut surface was smooth homogeneous brown. Microscopically the biopsy was covered by stratified squamous epithelium which at places had invaginated into deeper tissues forming bunt ended crypts. In subepithelial region a single focus of mature hyaline cartilage surrounded by lymphoid follicles, were seen embedded in fibrocollagenous tissue. A diagnosis of cartilaginous choristoma was made (Fig. 2)

DISCUSSION

Cartilaginous choristoma was first described by Berry in 1890^[4]. The neck is developmentally complex with frequent embryological anomalies. Choristoma of head and neck with predilection to the oral cavity is also thought to be a developmental anomaly yet no definite

etiopathogenesis has been described. There are several hypotheses for the pathogenesis of choristoma. Haemal et al suggested differentiation of multilineagemesenchymal progenitor cells^[2].

Lindholm et al suggested formation of osteogenic material due to chronic inflammation^[5], induced formation and heterotopic cartilage proliferation. Growth of multipotent mesenchymal cells may be stimulated by inflammation, trauma or irritation. Such denovo lesions may seldomly appear in the nasopharynx^[6]. Partihiban et al suggested that choristoma of tonsil are related to a developmental anomaly of second pharyngeal arch and may cause recurrent tonsillitis^[7]. Tonsils develop from the lateral part of the lateral pharyngeal arch an anomaly during the development may cause abnormal mesenchymal tissue in the tonsil^[8].

The age at presentation varies greatly ranging from 10-80 years^[2]. No sex predilection has been observed. Our both cases were female patients.

Cartilaginous choristoma should be differentiated from cartilaginous metaplasia. In the oral cavity cartilaginous metaplasia is usually seen in soft tissues under poorly fixed dentures. It is histopathologically characterized by diffuse dystrophic calcification zones and single or clustered cartilage cells at different stages^[9]. Present both the cases were middle aged females and the chondroid tissue was found as islands embedded in the collagenous tissue surrounded by lymphoid tissue. No transition zone was observed between the cartilaginous tissue and the mesenchymal tissue. Hence, it rules out the possibility of cartilaginous metaplasia of mesenchymal tissue.

Although recurrence has not been documented in head and neck, some extra oral cases have been reported to be recurrent, so all the perichondrium should be removed because it may have the potential to develop new cartilage^[10].

CONCLUSION

To conclude cartilaginous choristoma in palatine tonsil remains a rare entity and of academic interest. Although they are rare, a high index of suspicion for choristoma is needed when a patient with recurrent tonsillitis is being evaluated.

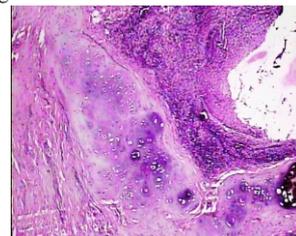


Fig.1: microscopic appearance showing islands of mature hyaline cartilage with lymphoid follicles and focal areas of calcification

(H&E,40X).

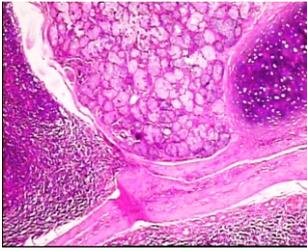


Fig. 2: Microscopic appearance showing lymphoid hyperplasia along with island of mature hyaline cartilage and adjacent normal mucus secreting glands. (H&E, 40X).

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