

## Chondroid Choristoma of Palatine Tonsil: Normal Tissue in an Abnormal Location

Nikhil Thada<sup>1</sup>, Kuladeepa Ananda Vaidya<sup>2\*</sup>, Sunil Pai<sup>1</sup>, Medha Shankarling<sup>2</sup>, Sukesh<sup>3</sup>

<sup>1</sup>Assistant Professor, Department of ENT, Srinivas Institute of Medical Science and Research Centre, Mukka, Mangalore.575021

<sup>2</sup>Assistant Professor, Department of Pathology, Srinivas Institute of Medical Science and Research Centre, Mukka, Mangalore-575021

<sup>3</sup>Professor and HOD, Department of pathology, Srinivas Institute of medical science and research centre, Mukka, Mangalore-575021

### \*Corresponding Author:

Name: Kuladeepa Ananda Vaidya

Email: [vaidyakuldeep@gmail.com](mailto:vaidyakuldeep@gmail.com)

**Abstract:** Choristoma is a condition in which histologically an island of normal tissue occurs in an abnormal location. Here we report a case of cartilaginous choristoma of palatine tonsil, in a patient who underwent tonsillectomy for chronic tonsillitis. Histological examination demonstrated the unexpected presence of a mature island of hyaline cartilage surrounded by lymphoid tissue of tonsil.

**Keywords:** Choristoma, cartilage, Histological examination.

### INTRODUCTION

Choristoma is a tumour-like mass consisting of tissues foreign to the site at which they are located [1]. Cartilaginous choristoma was first described by Berry in 1890 [2]. Natural history of this lesion is not clearly defined [1]. Several theories that explain the origin of this lesion 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 [3].

### CASE REPORT

A 38 year old male presented to ENT out patient department with the complaint of recurrent episodes (4-5 per year) of severe throat pain associated with fever and difficulty in swallowing. The patient was free from other otolaryngological signs and symptoms. Oral examination revealed enlarged bilateral palatine tonsils and inflammatory exudates over the external surface of tonsils. On palpation, the tonsils were firm and gritty. There were enlarged, non-tender, bilateral jugulodigastric lymph nodes. A clinical diagnosis of chronic tonsillitis was made. The patient underwent a bilateral tonsillectomy under general anaesthesia and the specimen was sent for a histopathological examination. Post-operative period was uneventful. Grossly, the excised tonsils were grey brown, globular, firm and gritty in consistency. Tonsils measured 2 x 1.5 x 1.5 cm (Right tonsil) and 2.5x1.5x1.5cm (left tonsil). Cut surface of both tonsils were lobulated, grey white in color, left tonsil showed a focal tiny glistening area

(Fig. 1). On histopathological examination, both the tonsillar tissues were found to be covered by stratified squamous epithelium, with areas of fibrosis and features of chronic tonsillitis. There was an island of mature hyaline cartilage (Fig. 2, 3) in left tonsil surrounded by lymphoid follicles.



Fig. 1: Cut surface of tonsil - grey white lobulated with focal glistening area and areas of fibrosis

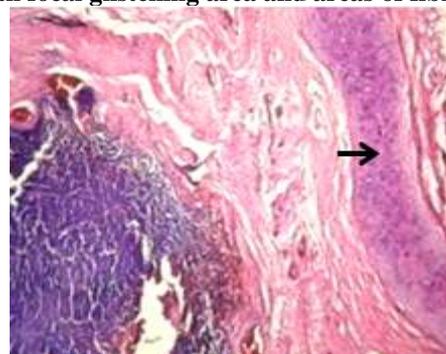
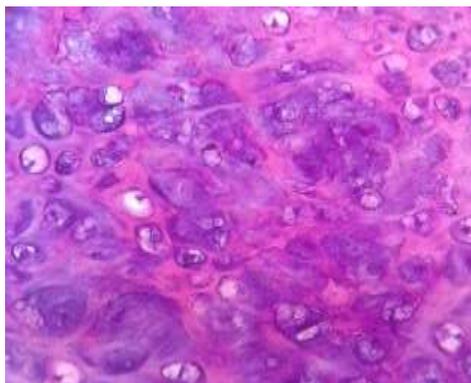


Fig 2: Lobule of hyaline cartilage (arrow) adjacent to lymphoid follicles and areas of fibrosis in tonsil (lower magnification)



**Fig 3: Nest of hyaline cartilage (higher magnification)**

## DISCUSSION

Choristoma in the head and neck region was reported in sites like pharynx, hypopharynx, oral mucosa and middle ear [4, 5]. Cartilaginous choristoma in the head & neck region show predilection for oral cavity. One series identified twenty such cases, seven of which involved the tongue, with other less common sites including the oral mucosa & soft palate [2].

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 [3, 6]. In our case, calcification was absent and part of the tonsil was occupied by mature hyaline cartilage. Mature cartilage is not a normal constituent of tonsil and, therefore, the lesion in our case represents a choristoma.

Chondroid choristomas of the tongue are more common in females, although in palatine tonsils, they do not have any sex predilection [7]. The age of occurrence of choristoma ranges widely from 10 to 80 years [2]. Various mechanisms have been suggested for the origin and pathogenesis of choristoma in different studies. As proposed by Haemel et al multilineage potential of mesenchymal progenitor cells which were able to differentiate into various mesenchymal lineages as a cause for choristoma [8]. Lindholm et al proposed that, 'the local chemical or physical changes brought about by chronic inflammation, may lead to liberation of osteogenic substances which produces heterotopic cartilage proliferation [9].

Simple excision of the lesion, along with surrounding soft tissue is considered as treatment. Although recurrences have not been documented in head and neck choristomas, some oral cases have been reported to be recurrent. So, perichondrium should be removed, since it may have the potential to develop a new cartilage. However in most of the times it is

expected to follow a benign course as any normal cartilage, elsewhere in the body [10].

## CONCLUSION

Chondroid choristoma of palatine tonsil remains a rare entity and of academic interest. Natural history of this lesion is not clearly defined but it follows a benign course and could be the cause of recurrent tonsillitis. Thus there has to be a high index of suspicion for this lesion when evaluating any patient with recurrent tonsillitis.

## REFERENCES

1. Ashraf MJ, Azarpira N, Gandomi M; Cartilaginous Choristoma in Palatine Tonsil. *IRCMJ*, 2010; 12(1): 65-67.
2. Bhargava D, Raman R, Khalfan AI, Abri R, Bushnurmath B; Heterotopia of the tonsil. *J Laryngol Oto.*, 1996; 110(6): 611-612.
3. Cutright DE; Osseous and chondromatous metaplasia caused by dentures. *Oral Surg Oral Med Oral Pathol.*, 1972; 34(4): 625-633.
4. Bernig T, Meigel S, Mukodzi S, Bech JF, Wiersbitzhy H, Von Suchodoletz H *et al.*; Ectopic cervical thymus in a year old boy: A Case report. *Pediatr Hematol Oncol.*, 2000; 7 (8): 713-717.
5. Warcrenier A, Fayoux P, Augusto D; Gastric heterotopia in the nasopharynx. *Int J Pediatr Otorhinolaryngol.*, 2002; 64(1): 65-67.
6. Parthiban R, Sangeeta M, Santosh KV, Sridevi NS, Nandish C; Choristoma of the Palatine Tonsil -A Case Report. *Anatomica Karnataka*, 2011; 5(3): 50-52.
7. Majeed AAA, Farah CS; Mixed choristoma on the anterior dorsal tongue: a new case and review of the literature. *Oral surgery*, 2011; 4: 26-29.
8. Haemel A, Gnepp DR, Carlsten J, Robinson-Bostom L; Heterotopic salivary gland tissue in the neck. *J Am Acad Dermatol.*, 2008; 58(2): 251-256.
9. Lindholm ST, Hackman R, Lindholm RV; Hisodynamics of experimental heterotopic osteogenesis by transitional epithelium. *Acta Chirugica Scandinavia*, 1973;139: 617-623
10. Bharti JN, Ghosh N, Arora P, Goyal V; Chondroid choristoma of palatine tonsil-a rare entity. *Journal of Clinical and Diagnostic Research*, 2013;7(8): 1700-1701.