Cartilaginous Choristoma in Palatine Tonsil

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Abstract

Choristoma is a tumor-like mass consisting of tissues foreign to the site at which they are located. We report an 18 years old male presenting with persistent tonsillitis. Histological examination demonstrated the unexpected presence of a mature island of hyaline cartilage surrounded by lymphoid hyperplasia.

Keywords: Tonsil; Choristoma; Palatine tonsil

Introduction

Choristoma is histologically an island of normal tissue that occurs in an abnormal location.¹ In contrast, a hamartoma is a mass composed of histological normal cells in an anatomically normal location. 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, meningial, salivary gland and thyroid tissues.⁵-⁸ Here, we report a case of chronic tonsillitis with cartilaginous choristoma. In histological examination, mature islands of hyaline cartilage were surrounded by lymphoid hyperplasia.

Case Report

An 18 years old male presented to the Otolaryngology Head and Neck Surgery Service with a 6 years history of snoring and sleep apnea. The patient was free from other otological signs or symptoms. His physical examination was significant for an infected enlarged palatine tonsil covered by inflammatory exudates. The remainder of the head and neck exam was free of mass lesions, lymphadenopathy, cranial nerve deficit, and other significant findings. The patient received oral antibiotics for presumed tonsillitis. At serial follow-ups, the tonsils remained inflammed, and intermittent episodes of purulent exudates were noted. The patient also complained of halitosis. Because of persistent symptoms and the abnormally large size of the tonsils, a tonsillectomy was performed. The tonsils were located in the lateral aspects of nasopharyngeal wall. On palpation, they were firm and gritty, and were removed with considerable difficulty. Histological examination of the specimen was remarkable for follicular hyperplasia in association with an island of mature hyaline cartilage as cartilaginous choristoma in palatine tonsil (Figures 1 and 2).

Discussion

The neck is developmentally complex, with frequent embryologic anomalies most commonly presenting as fistulae along the lower anterior sternocleidomastoid muscle (SCM). Heterotopic tissue as hamartoma or choristoma is another interesting finding.⁹ Cartilaginous choristoma was first described by Berry in 1890.¹⁰ The age of diagnosis for these patients varied greatly (ranging from 10 to 80 years). Cartilaginous choristomas in the head and neck have a predilection for the oral cavity. One series identified 20 such cases, 17 of which involved the tongue, with other less common sites including the buccal mucosa and soft palate.¹⁰ Bhargava et al.¹¹ and Kapoor,¹² reported that choristoma of the head and neck was a rare lesion and described the cartilaginous choristoma within the tonsil. We report findings from a patient who had a
symptomatic cartilaginous mass that presented as tonsillar hypertrophy. Mature cartilage is not a normal constituent of the nasopharyngeal epithelium and, therefore, by definition, the lesion in this case represents a choristoma. Several theories exist as to the cause of these lesions including cartilaginous development from heterotopic fetal 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. However, the de novo development of this lesion in the nasopharynx seems highly improbable. Therefore, the natural history of this lesion is undefined and will probably remain so.

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 diffuse deposits of calcium and scattered cartilaginous cells arranged in various stages of maturation in single or clustered foci. In our case, a small area of calcium deposition was present, but the majority was occupied by mature hyaline cartilage. We, therefore, considered the lesion as a cartilaginous choristoma. Complete surgical excision is the preferred treatment for nasopharyngeal choristoma, with attention directed toward maintaining a patent airway. Although recurrence has not been documented in the 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. Overall, cartilaginous choristoma in the nasopharynx remains a rare entity and comprises a very small minority of all nasopharyngeal masses. However, it is expected to follow a benign course as normal cartilage found elsewhere in the body.

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References

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