



CASE REPORT

Ectopic salivary tissue of the tonsil: a case report

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Received 21 August 2004; received in revised form 9 November 2004; accepted 18 November 2004

KEYWORDS

Tonsil;
Salivary gland;
Embryology;
Ectopic salivary

Summary To report one patient with an ectopic salivary tissue tag on the tonsil, and review the embryology, management, and implications of this benign disorder. Case report with literature review. Ectopic salivary tissue presented on the tonsil of a child as a painless, growing, unilateral pale exophytic mass. Tonsillectomy was performed to provide diagnosis, and was curative. Ectopic salivary tissue of the tonsil is a rare finding. Tonsillectomy allows for definitive diagnosis and treatment.

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1. Introduction

Ectopic salivary tissue in the tonsil is rare. A review of the literature revealed only two previous reports of ectopic salivary tissue in the oropharynx. We report one patient with an ectopic salivary tissue tag on the tonsil, and review the embryology, management, and implications of this benign disorder.

2. Case report

An otherwise healthy 13-year-old girl presented with a painless, right tonsillar mass that had been

increasing and decreasing in size for approximately one year. During the past year, the patient reported four to five episodes of pharyngitis. At her office visit, she denied constitutional symptoms and had no dysphagia, hoarseness, or stridor. Examination demonstrated a 1 cm² superficial pale cyst on the right superior tonsillar pole (Fig. 1). The rest of her ENT exam was unremarkable. After discussion with the family, a decision was made in favor of surgical excision. Uncomplicated bilateral tonsillectomy was performed. Gross examination revealed a right, white, cystic tonsillar mass (Fig. 2). Histopathology demonstrated the squamous mucosa of normal tonsillar tissue with sub-jacent heterotopic mucinous salivary gland acini, consistent with ectopic salivary tissue (Figs. 3 and 4). Examination of the contralateral tonsil showed no lesions. Six-month follow-up revealed no evidence of recurrence and no new relevant symptoms.

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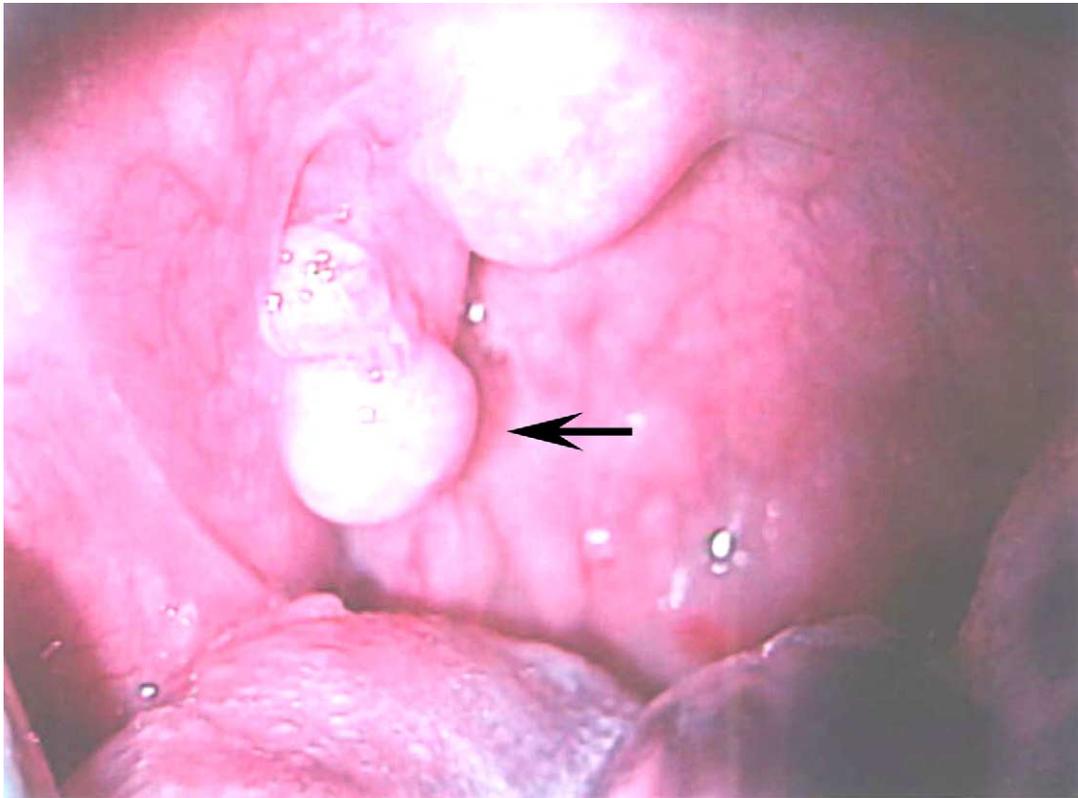


Fig. 1 Examination of the oral cavity. Arrow shows a 1 cm² superficial pale cyst on the right superior tonsillar pole.

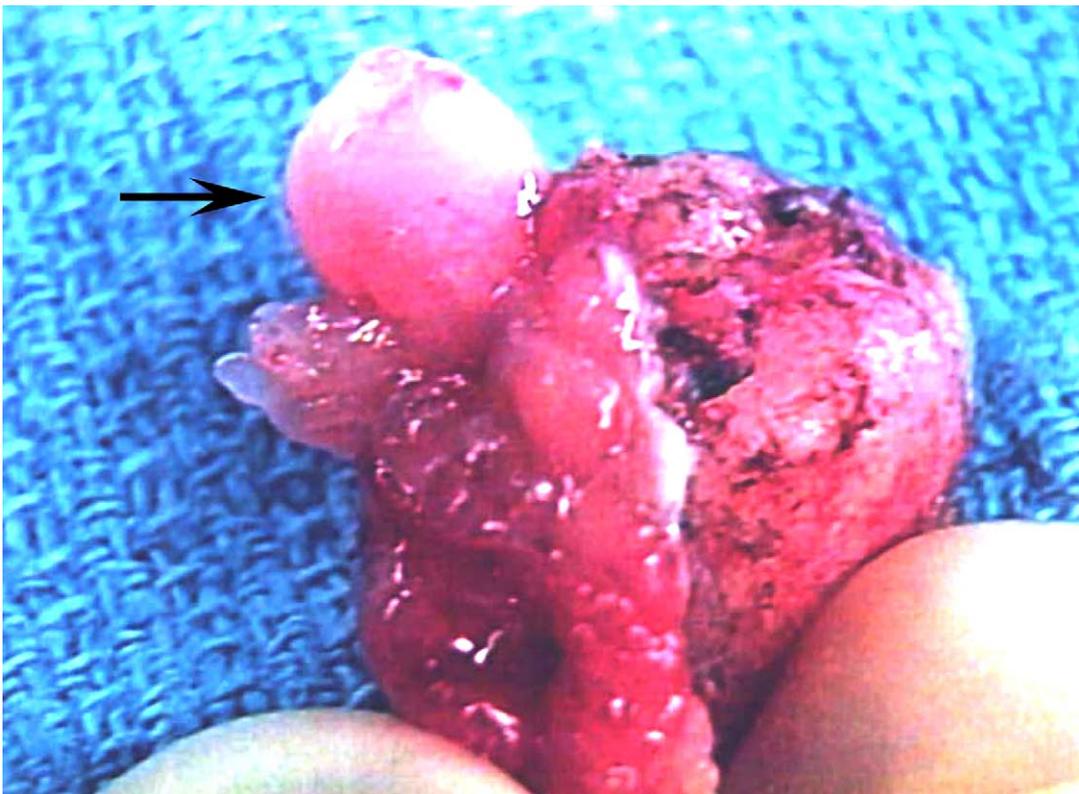


Fig. 2 Gross specimen, right tonsil. Arrow shows an exophytic white, cystic tonsillar mass.

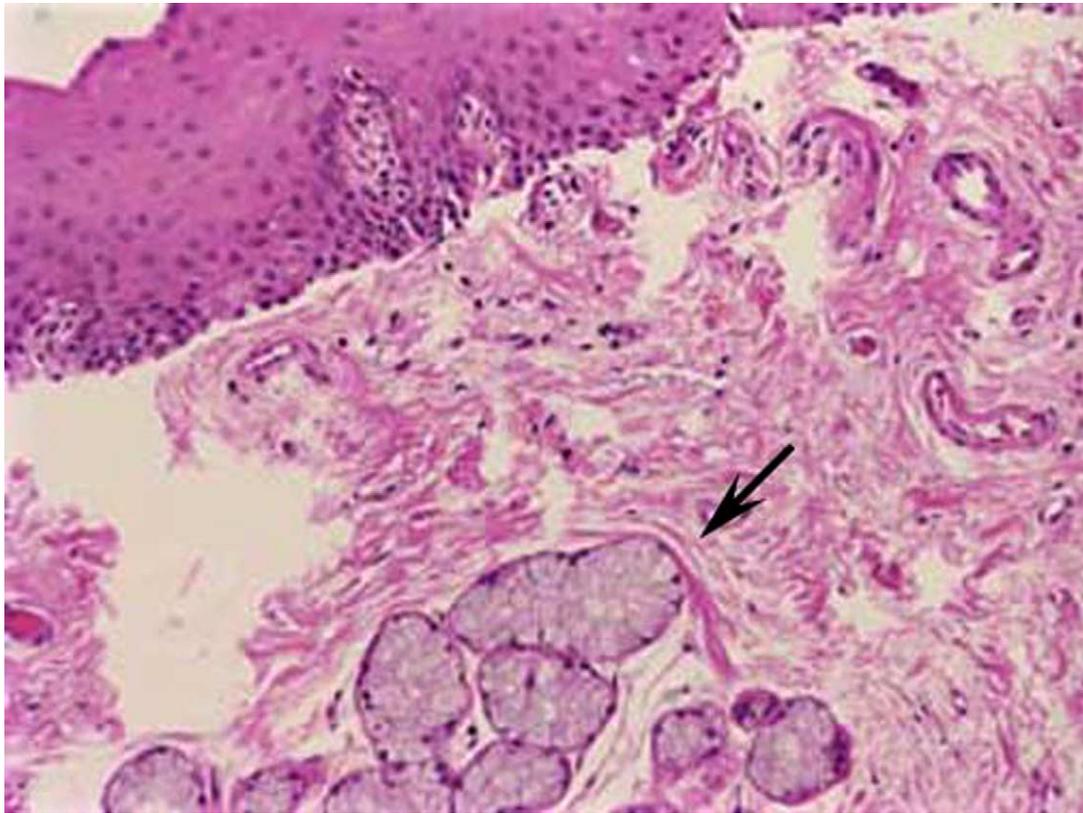


Fig. 3 Histopathologic examination, hematoxylin and eosin stain, 20× power. Heterotopic mucinous salivary gland acini are seen beneath the squamous mucosa (arrow).

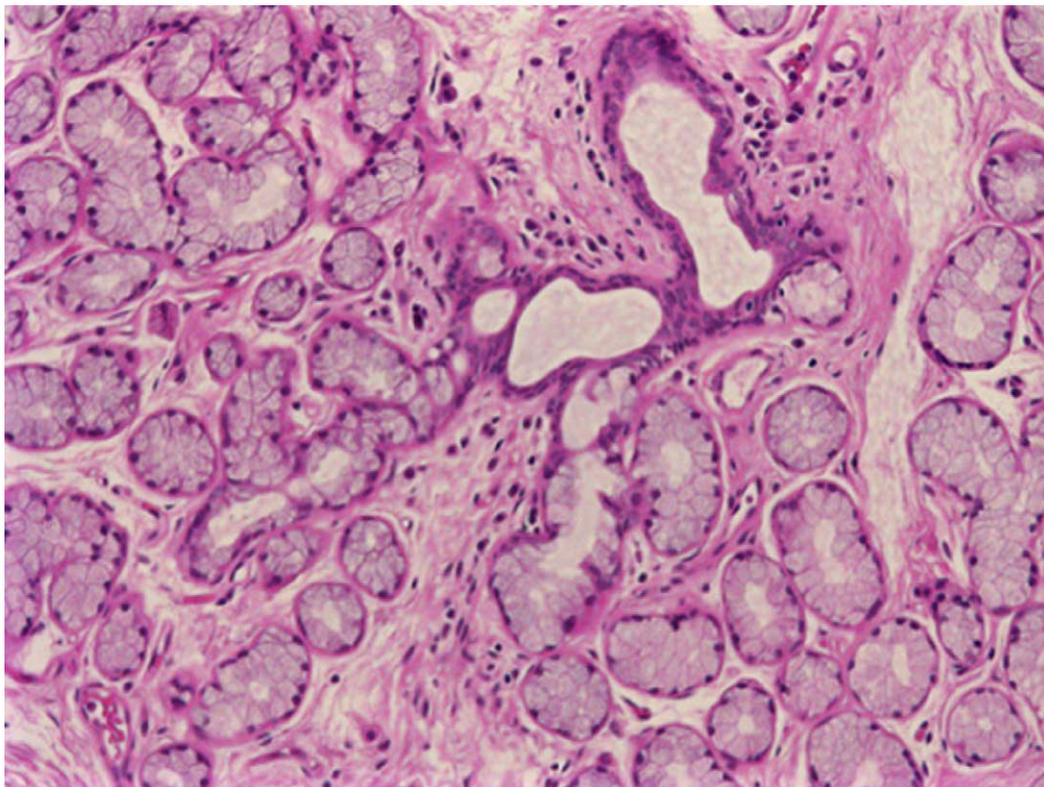


Fig. 4 Histopathologic examination, hematoxylin and eosin stain, 20× power. The heterotopic salivary gland tissue has normal structure, including ducts.

3. Discussion

The palatine tonsils are paired lymphatic masses that comprise the lateral-most portion of Waldeyer's ring (palatine, lingual, nasopharyngeal tonsils). Grossly, each tonsil contains approximately 30 crypts that are lined by non-keratinizing stratified epithelium [1]. Embryologically, the palatine tonsils and tonsillar fossa are thought to derive from the endodermal lining of the second pharyngeal pouch. The palatine tonsils are identified during the third fetal month, with organized lymph follicles noted during the third trimester [2].

The major salivary glands in humans are the paired parotid, submandibular, and sublingual glands. They first appear between the sixth and eighth week of fetal life, beginning as epithelial proliferations of buds from the primitive oral cavity [3]. In addition to the major salivary glands, there exist numerous minor accessory salivary glands spread throughout the oral mucosa. It is most reasonable to consider these minor salivary glands as the source of ectopic salivary tissue on the tonsil.

A review of the literature over the last 30 years reveals two isolated case reports in which ectopic salivary tissue was noted in the palatine tonsil. The first such case involved a child with a first branchial arch defect in whom a large horseshoe-shaped, obstructing mass in the palatine tonsillar region revealed primarily salivary tissue on histopathologic examination [4]. The second related case was presented in the Russian literature, involving ectopic salivary tissue incidentally identified in the tonsillar region during a resection for upper airway papillomas [5]. We report a unique case in which a unilateral tonsillar mass revealed ectopic salivary tissue on histopathologic examination.

The differential diagnosis of a tonsillar mass in the pediatric population includes apparent enlargement, infective etiologies, congenital variation, hypertrophy, and neoplasm (benign versus malignant). Apparent enlargement is worthy of discussion. In a recent study, Harley compared preoperative assessment of asymmetric tonsils to actual pathologic measurements of tonsil volumes and found little statistical correlation. This "illusion of asymmetry" was attributed to variability in the depth of the tonsillar fossa [6]. In a series of 570 patients undergoing tonsillectomy, Syms et al. found a 60.5% correlation between the clinically assessed size and pathologically measured volume with a preoperative assessment of tonsillar asymmetry [7].

Benign neoplasms of the tonsil are relatively rare. In Hyams' review of 1916 tonsillar neoplasms, 381 cases consisted of benign tumors. The most common benign neoplasm was squamous cell papilloma

(75%), followed by lymphangioma (8%), epidermal inclusion cyst (6%), fibroma (3%), and "other" neoplasms (9%). No case of isolated ectopic salivary tissue was identified, as described above.

Although squamous cell carcinoma is the predominant tonsillar malignancy in adults, it is rarely encountered in the pediatric population. Waldeyer's ring lymphomas represent the majority of malignant neoplasms of the pediatric tonsil. These lymphomas are usually non-Hodgkin's subtypes, and of B-cell origin [8]. Berkowitz and Mahadevan reviewed a series of 54 patients who underwent tonsillectomy for unilateral tonsillar enlargement during a 20-year period. In their series, seven patients were diagnosed with tonsillar lymphoma. Patients with tonsillar lymphoma, in comparison to subjects with benign unilateral tonsillar enlargement, presented with unique signs and symptoms preoperatively, including rapid tonsillar enlargement, systemic symptoms (night sweats, fevers and rigors), cervical adenopathy, significant dysphagia, and hepatosplenomegally [9].

4. Conclusion

Our patient presented with an asymptomatic, slowly growing unilateral tonsillar mass. Surgical excision by tonsillectomy provided tissue for histopathologic evaluation, and allowed for cure. The differential diagnosis of a tonsillar mass includes ectopic salivary tissue.

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