CASE REPORT

Salivary gland choristoma on tonsil – A case report and review

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Abstract

The salivary choristoma or heterotopic salivary gland is defined as a tumor-like growth of otherwise normal salivary gland found in an abnormal location. Although histologically there is evidence of heterotopic salivary gland tissue in palatine tonsil rarely it manifests as visible mass with only isolated case reports having been found. In this article, we present a case with salivary gland choristoma on palatine tonsillar wall and a brief review.

Keywords: Choristoma, heterotopia, salivary gland, tonsils, tumorogenic potential

Introduction

The heterotopic salivary gland or salivary choristoma is defined as a tumor-like growth of otherwise normal salivary gland found in an abnormal location.¹ This entity is different from accessory salivary gland tissue with a salivary gland duct system.²

Anyhow, salivary gland tissue located in sites other than normal location is variously described as aberrant, accessory, ectopic, heterotopic, or salivary gland choristoma.³⁴ In this case report, we present multiple heterotopic salivary tissue nodules on tonsillar wall.

Case Report

A male patient aged 20 years visited ENT Clinic outpatient department with a chief complaint of throat pain. On oral examination, 3-4 smooth-surfaced tissue tags were found on the faucian pillar around the left palatine tonsil (Figure 1). Clinical diagnosis of tonsillar mass was given. Excisional biopsy of all the tissue tags was done. Histopathology revealed collection of normal appearing mucus salivary acini arranged in lobules separated by connective tissue septae (Figures 2 and 3). Very few ducts were seen with mild inflammatory infiltrate. Based on the clinical location and histopathologic picture, a diagnosis of ectopic salivary gland in relation to tonsils was reached.

Discussion with Brief Review of Literature

Human palatine tonsils are oropharyngeal lymphoid tissue lined by stratified squamous epithelium on the outer surface.⁵ The heterotopic salivary gland is an accidental finding, most commonly associated with periparotid and intraparotid lymphnodes.⁶ Next more common sites for ectopic salivary gland are sternoclavicular joint and cervical lymph nodes.⁶⁷ A study by Buckmiller has demonstrated heterotopic salivary gland in middle ear⁸ and in addition Buckmiller et al. have suspected the presence of ectopic salivary tissue in middle ear as a component of new syndrome.⁸

Other reported sites of involvement are anterior chest wall, cerebellopontine angle, stomach, parathyroid gland, lacrimal gland, pterygopalatine fossa, tonsils, sella turcica, thyroid, mediastinum, rectum, vulva, prostate, gingival, mandible, maxilla, and posterior triangle of the neck.⁹⁰

In our case, heterotopic salivary gland was found as 3-4 tissue tags on left tonsillar walls. A case by Banerjee et al. demonstrated a horseshoe-shaped mass obstructing the oropharynx of a newborn...
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child. Histopathologic examination of the excised specimen showed them to be made up of salivary gland tissue.\(^{[10]}\) Wise et al. have reported a similar tissue tag as our case on the tonsil which turned out to be a salivary tissue.\(^{[11]}\) Golani et al. have reported bilateral ectopic salivary gland tissue in a routine tonsillectomy specimen. They have mentioned that ectopic salivary tissue on tonsils are rare, and only four cases have been reported over the past 30 years.\(^{[12]}\) This article was published in 2012 and after that we did literature search till the present year (2016) and even in our search we could not find any case report of heterotopic salivary tissue on tonsil. That makes the occurrence of heterotopic salivary tissue on tonsil rare.

Pathogenesis

Precise pathogenesis of salivary gland tissue heterotopias is debatable. Various mechanisms for the development and nature of have been discussed by various authors depending on where this heterotopia seen.\(^{[13,14]}\)

We, in our case, have thought of two possibilities. One, minor salivary gland tissue of palate may have been mechanically displaced during prenatal development and have got implanted on palatine tonsillar walls and subsequently have developed into heterotopic tissue tags. Two, there is evidence of association of mucous glands with ducts in the palatine tonsils and these ducts rarely open into the crypts.\(^{[15]}\)

Pathologic features

Heterotopic salivary gland recapitulates normal salivary gland with the exception of excretory ducts, which are not found in every case. The glands are serous or seromucinous in type. There is surface parakeratinized stratified squamous epithelium with lamina propria which shows presence of salivary gland tissue arranged in lobules with chronic inflammatory infiltrate.\(^{[1,6]}\) Neoplasms arising from heterotopia are indistinguishable from those arising from the major and minor glands.\(^{[6]}\)

Tumorigenic potential

There is a need to emphasize on tumorigenic potential of salivary gland heterotopias. Clinically, they appear as soft tissue masses; histopathologically, they are composed of lobules of normal salivary gland tissue. Clinicians should be aware that such an entity as salivary gland heterotopias exists and should be considered as one of the differential diagnoses of soft tissue masses in the oral cavity. Moreover, they should also be aware of the fact that the neoplastic transformation of a heterotopic salivary gland is a possibility. Evidence suggests that approximately 80% of tumors are benign. Mixed tumors and other adenomas, Warthin’s tumor, mucoepidermoid carcinoma, acinic cell carcinoma, adenocarcinoma, and adenoid cystic carcinoma are seen to arise from this tissue.\(^{[9]}\) Hence, there is a need for a proper diagnostic approach.
Treatment and prognosis

Non-neoplastic choristomatous masses are treated with simple excision. Neoplasms, however, should be treated as their respective histology counterparts. When a malignant tumor is presumed to arise from heterotopia, an occult primary tumor must be excluded from the study.\(^6\)

Conclusion

Heterotopic salivary tissue though resembles normal salivary tissue in histology its possible tumorigenic potential cannot be ignored. It is rare occurrence in association with tonsils should not eliminate it from considering in differential diagnosis in case of any tissue mass in tonsillar area. Proper diagnosis and follow-up of these cases should be considered.

References
