

## **Epidermal Inclusion Cyst In Palatine Tonsil: A Case Report**

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**Abstract:** Dermoid cysts are squamous epithelium lined cysts commonly found in head and neck region. Dermoid cyst arising in the pharynx is very rare. It presents in the early infancy or childhood as an unilateral mass arising from the tonsil with obstructive features. Surgical excision is the curative treatment of this unusual condition. This entity should be considered as a differential diagnosis in dealing with unilateral enlargement of tonsil in childhood. Even though reports of epidermoid cysts in the head and neck, especially those in the floor of the mouth, soft palate, lips, or the lingual and buccal epithelium can be found in the literature, but there is no report of an intratonsillar epidermoid cyst. We intend to report the case of a patient who underwent tonsillectomy but an epidermoid cyst arising from the tonsil was found incidentally and confirmed by histology.

**Keywords:** Palatine tonsil, epidermal cyst, dermoid cyst

### **INTRODUCTION**

The palatine tonsil is a mass of pharyngeal lymphoid tissue with an external lining of stratified squamous mucosa, lying between the arches of the palatoglossal and palatopharyngeal muscles and just superficial to the superior constrictor muscle [1]. Reaching down into the depth of the tonsil are crypts lined by squamous epithelium containing debris composed of desquamated epithelium, bacteria (especially actinomyces), and fungal organisms. The lymphoid tissue surrounding the crypts has nodules, often with germinal centres. Deep in the crypts the epithelial layer becomes blurred since the lymphocytes of the tonsil invade it. A capsule covers the parts of the tonsil not exposed to the surface and connective tissue septa extend into the tonsil from the capsule [1].

Epidermoid and dermoid cysts are benign lesions developing from abnormal epithelial components of ectodermal tissue formed during the fetal period, or implanted epithelium arising after trauma or surgery [2]. These lesions, which can be seen anywhere in the body, occur in the head and neck area in approximately 7% of cases [3-4]. Those in the oral cavity are mostly in the floor of the mouth (in the sublingual, submental or submandibular areas) and in various other localizations including the labial, lingual or buccal mucosa[5]. Their incidence in the oral cavity makes up for 1.6% of the total occurrences and they constitute less than 0.01% of all the cystic lesions of the oral cavity[6].

### **CASE REPORT**

We came across a specimen of tonsil from an 11 yr. old patient, which was excised for history of recurrent tonsillitis. The gross specimen did not reveal the presence of epidermal cyst. Cut section revealed grey brown areas with grey white area. On microscopic examination, we found the presence of an epidermal inclusion cyst with the lining by stratified squamous epithelium amidst the tonsillar tissue which showed features of chronic tonsillitis. (Fig 1(a) and (b) and Fig-2) The lumen of the cyst was filled with degenerated and necrotic keratin debris.

### **DISCUSSION**

Epidermoid and dermoid cysts can be in any location of the body. A study on 1495 cases by New and Erich shows that their location is most frequently anal (44.5%) and ovarian (42.1%) [7]. Cases of cysts in the head and neck area are only 7% of the total body[3].

Various publications also report epidermoid cysts of the oral cavity in the soft palate, the uvula and the sublingual area. However, we could not find a report of epidermoid cyst in a tonsil. The male/female ratio of the patients with a diagnosis of epidermoid cyst is 3/13 and the age range of the large majority is 10-35 years.[8]. Especially the latter fact leads to the thought that cyst formation could be stimulated by hormonal influence during puberty[8],



Fig-1 (a) and Fig 1(b): 10x .show epidermal inclusion cyst with keratin debris and squamous lining.  
Fig 2.Squamous lining of the epidermal cyst, which is on the left side.

Treatment for these lesions is surgical excision of the cyst. It should be excised without opening because its contents could have an irritating effect on the surrounding fibrovascular tissue [9]. Recurrence after surgery is rare. A malignant evolution has only been seen in the teratoid type and was reported to have an incidence of 0.5% [10]. Oral and pharyngeal epidermoid cysts of the inclusion cyst variety also occur, but are rare in adults and are frequently so small that a biopsy is not performed.

#### CONCLUSION

In the oropharynx, palatine tonsil is a very important structure which is affected by many disease processes. Apart from malignancy there are many diseases like papilloma, minor salivary gland tumor, schwannoma, fibroma, inclusion cyst, lymphoid polyp and other inflammatory lesions which cause unilateral enlargement of tonsil. But tonsillar enlargement due to dermoid cyst is very unusual. When the patient presents with tonsillar enlargement, difficulty in swallowing or a child with abnormal cry, the above mentioned conditions should be kept in mind.

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