

A Rare Case Report of Epidermoid Cyst in Palatine Tonsil

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ABSTRACT Epidermoid cysts (ECs) are benign lesions that can be encountered anywhere in the body as congenital or acquired. In oral cavity, the most common affected site is floor of mouth but the incidence of ECs arising in the tonsil is very rare. Though it is extremely rare, EC should be considered as a differential diagnosis of tonsillar masses. Also otolaryngologists should be differentiate it from the tonsillar neoplasia due to similar appearance. We aimed to report the case of EC arising in the tonsil which was encountered as a tonsillar mass. Also we discussed role of histopathology in such rare lesions.

Keywords: Epidermoid cyst; palatine tonsil; chronic tonsillitis

Epidermoid cysts (ECs), also named as epidermal, epithelial, keratinous, sebaceous, milia, epidermal inclusion cyst or infundibular cysts are benign lesions developing from abnormal epithelial components of ectodermal tissue formed during the fetal period (congenital), or implanted epithelium arising after surgery or trauma (acquired).^{1,2} But there is no developmental or histologic difference between these two types of causes.³ These lesions, consist in the head and neck area in approximately 7% and their incidence in the oral cavity makes up for 1.6% of the total cases and they compose less than 0.01% of all the cystic lesions of the oral cavity.^{4,5} Sublingual, submental, submandibular, labial/lingual or buccal mucosa are the most common sites in oral cavity where cyst occurs.⁴ They are usually asymptomatic and grow slowly. Surgical excision is sufficient for cure.⁶ Even though reports of ECs in the head and neck, especially those in the sublingual, submental, submandibular, labial/lingual or buccal mucosa can be found in the literature, tonsillar involvement by ECs seems to be very rare. Though it is extremely rare, EC should be considered as a differential diagnosis of tonsillar masses. Also otolaryngologists and pathologists should be differentiate it from the tonsillar neoplasia due to similar appearance. We aimed to report the case of epidermoid cyst arising in the tonsil which was encountered as a tonsillar mass.

CASE REPORT

An 8-year-old male patient presented to our ear nose throat (ENT) clinic for sore throat and difficulty in swallowing since six months. ENT examination for ear and nose were within normal limits. The palatine tonsils were enlarged with congested anterior pillars (grade III tonsillitis). A smooth-surfaced nodular mass was seen near the upper pole of the right tonsil. No neck lymph nodes were palpable. Routine laboratory examination was within normal limits and serologically patient was non-reactive. The patient underwent tonsillectomy for diagnostic purpose under general anesthesia and postoperative was uneventful. The excised specimen was sent for histopathological examination. On macroscopic examination, we viewed right tonsillar mass with hypertrophy, round regular and nodular areas but the gross specimen did not reveal the presence of EC (Figure 1). It was examined by light microscopy following hematoxylin and eosin staining. Multiple sections studied from the tonsils showed stratified squamous epithelium with underlying lymphoid follicles. The tonsillar crypt contained mixed inflammatory infiltrate (lymphocytes and polymorphs) with increased vascularity. There was hyperplasia of lymphoid follicles with prominent germinal centres (Figure 2). Also seen



FIGURE 1: Gross of right tonsillar mass with hypertrophy, round regular and nodular areas.

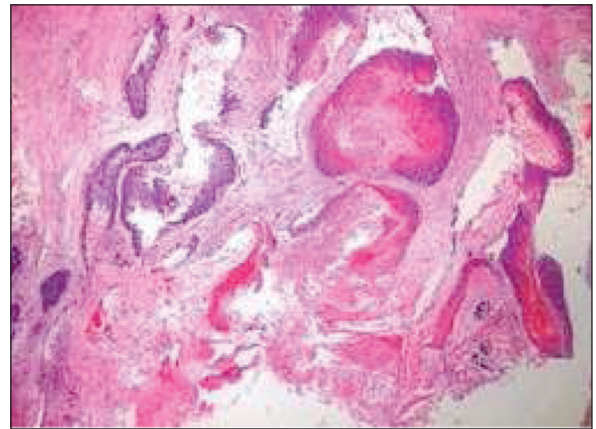


FIGURE 2: Hematoxylin/eosin-stained slice under microscope showing lymphoid follicle of tonsils (magnification original $\times 10$).

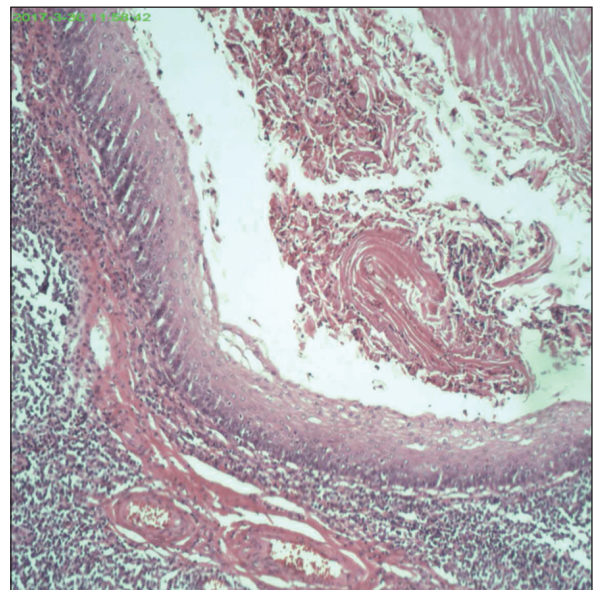


FIGURE 3: Hematoxylin/eosin-stained slice under microscope showing cystic cavity within the tonsillar tissue lined with keratinized epithelium. (magnification original $\times 10$).

in the same section was a cyst with wall lined by stratified squamous epithelium containing keratin flakes, cholesterol crystals, cyst macrophages and lymphocytes (Figure 3).

Final histological diagnosis was rendered as ECs of tonsil with chronic tonsillitis. Post operative period was uneventful. Patient was discharged on the 2nd post-operative day. Follow up was uneventful.

DISCUSSION

The palatine tonsil is a pharyngeal lymphoid tissue with an external lining of stratified squamous mu-

cosa.⁷ Epidermoid cysts are defined as benign lesions that are histologically characterized by lined by squamous epithelium with the granular layer filled with lamellated keratin material.⁸ Similar picture was seen in our case. The surrounding connective tissue can also elicit a foreign body giant cell reaction if the cyst gets ruptured with the release of keratinous material.

The cysts in oral cavity are termed as “epidermoid” if they are enclosed and lined by stratified squamous epithelium only. If the wall of the cyst contains skin adnexal structures termed as “dermoid cyst” and if they include the tissues from ecto, endo or mesoderm like muscle, bone, cartilage or fat called as “teratoid cyst”.² They can be classified as being either congenital or acquired based on its origin. The congenital ones are found in areas where embryonic elements fuse together whereas the acquired types usually occur secondary to trauma or surgery. Our patient presented no history of surgery or trauma and the fact that he was aged 8 years would seem to favor the congenital theory.

They can occur in any age group, starting from birth (the congenital type) to 72 years with peak age between 15 to 35 years that leads to the thought that cyst formation could be stimulated by hormonal influence during puberty, male to female ratio with diagnosis of EC s is 1:4.^{2,9,10} Our patient was an 8 year old male.

They usually present as asymptomatic painless slow growing mass.⁸ 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. 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%.^{11,12} A tonsillectomy was performed in our patient; the cyst was excised within its capsule and the follow-up during 12 months was entirely uneventful.

These cysts can be associated with certain hereditary syndromes like Gardner syndrome caused by mutations in the adenomatous polyposis coli gene, or in Lowe syndrome, an X-chromosomal oculo-cerebral-renal disorder caused by muta-

tions of the OCLR1-gene.^{13,14} The differential diagnosis of tonsillar mass are tonsillar tumors, tumors of parapharyngeal space, infections and inclusion cyst.² Histopathologically we can easily differentiate these entities, hence gross and microscopical examination of every resected tonsillar mass is important. Histopathology is the gold standard to rule out malignancy and to confirm the benign nature of tonsillar EC.¹⁵

In conclusion, the aim of this short report is to highlight the role of histopathology in every resected tonsil and to enlighten the rarity of intra-tonsillar EC for proper patient management. Pediatricians, otolaryngologists, and pathologists should be aware of the occurrence of tonsillar EC in the pediatric age group.

Informed Consent

Written informed consent was obtained from the patient's mother for publication of this case report and accompanying images.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: Ayşegül Şule Altındal; **Design:** Ayşegül Şule Altındal; **Supervision/Consultancy:** Ayşegül Şule Altındal; **Data Collection and/or Processing:** Ayşegül Şule Altındal; **Analysis and/or Comment:** Ayşegül Şule Altındal; **Source Browsing:** Ayşegül Şule Altındal; Nermin Ünal; **Written by Makalen:** Ayşegül Şule Altındal; **Materials:** Ayşegül Şule Altındal, Nermin Ünal.

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