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## Case Report

# An unusual case of lymphoepithelial cyst of palatine tonsil

Deepalakshmi Tantry<sup>1</sup>, Gururaj Tantry<sup>2</sup>, Rinshin T<sup>1,\*</sup>

<sup>1</sup>Dept. of ENT, A.J. Institute of Medical Sciences and Research Centre, Mangalore, Karnataka, India

<sup>2</sup>Dept. of Anesthesia, A.J. Institute of Medical Sciences and Research Centre, Mangalore, Karnataka, India



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### ABSTRACT

Amongst the various cystic lesions of oral cavity, Lymphoepithelial cyst (LEC) is a rare cystic lesion that presents as an asymptomatic submucosal mass and is usually discovered during routine oral examinations. Most common site of occurrence is the floor of the mouth but tonsillar involvement seems to be very rare. Pathogenesis involves the excessive accumulation of desquamated epithelial lining in the tonsillar crypt. This results in a dilated obstructed crypt of the palatine tonsil region which presents as a cystic lesion. Here we are reporting a case of 17 year old female with lymphoepithelial cyst of tonsil.

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## 1. Introduction

Lymphoepithelial cysts are uncommon benign lesions which arise from entrapment or proliferation of epithelium along with lymphoid tissue that may occur in various sites, including the pancreas, thyroid and mediastinum. In the head and neck region, LECs have been described in lateral areas of the neck (known as branchial cyst), the parotid gland, and the oral cavity.

Lymphoepithelial cysts of the oral cavity are rare lesions. They present as small, well circumscribed, yellowish elevated nodules which are lined with stratified squamous epithelium and surrounded by lymphoid tissue, usually on the floor of the mouth or the ventral or posterolateral surface of the tongue. Less frequent locations include the soft palate, mandibular vestibule, and anterior pillar. Eventhough they are typically benign, management of these cysts can be complicated by their location. Both clinical examination and imaging is necessary for effective diagnosis and treatment.

## 2. Case Report

A 17-year-old female patient came to otorhinolaryngology opd with one month history of a painless swelling in the right side of the throat. There was no h/o progression of the size of the swelling over the last 1 month. Patient gives no h/o throat pain, pain or difficulty on swallowing solids, liquids or saliva. Patient gives a significant surgical h/o tonsillectomy 2 years back. On oral examination, a well-circumscribed cystic swelling seen behind the right posterior pillar of tonsil. Swelling was pale pink in color and cystic in consistency (Figure 1). There was no involvement of lymph nodes in the neck or other areas. Lab workup was within normal limits. Serology assessment done for HIV was seronegative.

Patient underwent imaging MRI scan which showed cystic lesion with mural nodule/Hemorrhagic component in the posterior pharyngeal wall- suggestive of Pharyngoepithelial cyst (Figure 2).

Patient underwent excision of under General anaesthesia, with an incision placed over posterior pharyngeal wall lateral to the cyst. Cyst wall was retracted and excised upto the inferior pole along the plane of tonsillar fossa

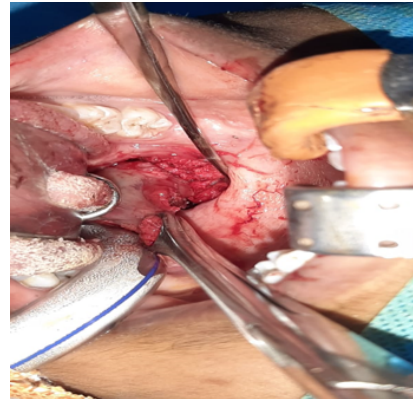
\* Corresponding author.

E-mail address: [rinshin9@gmail.com](mailto:rinshin9@gmail.com) (Rinshin T).

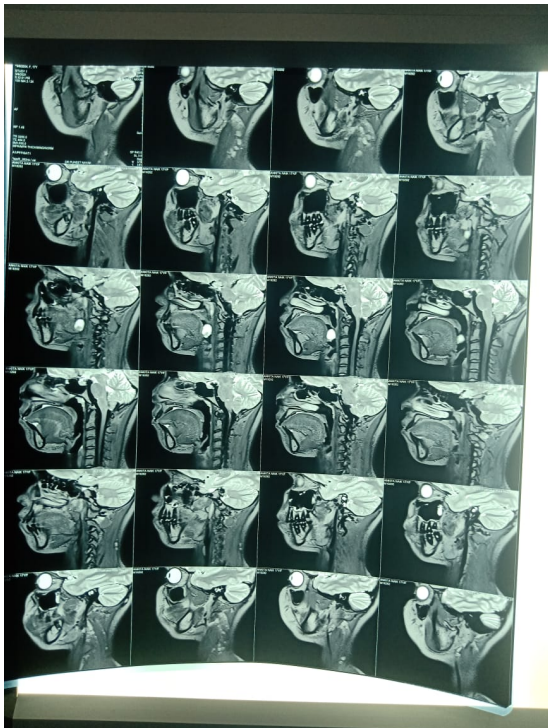


**Fig. 1:** Cystic swelling in the right posterior tonsillar fossa

diagnosis of lymphoepithelial cyst. The postoperative period was uneventful (figure 5) subsequent follow-up showed no signs of recurrence.



**Fig. 3:** Intraoperative image showing the plane of surgical excision of cyst



**Fig. 2:**

(Figure 3). Inferior pole was clamped and cyst was excised in to along with the mucosal layer superiorly and fibres from the bed of the tonsillar fossa. Specimen (Figure 4) was sent for histopathological examination. Microscopic examination showed cyst composed of stratified squamous epithelium without rete ridges with underlying multiple lymphoid follicles having prominent germinal center of varying sizes seen within the lumen of the cyst .Underlying fibrocartilaginous stroma with skeletal muscle fibers were seen .The histopathological characteristics confirmed the



**Fig. 4:** Specimen of cyst excised



**Fig. 5:** (Post-op)

### 3. Discussion

LECs are lesions that can be found in different parts of the body and are characterized by the presence of squamous epithelium surrounded by lymphoid tissue.<sup>1–7</sup> Although the histopathological scenario suggests the involvement of both epithelium and lymphocytes in the genesis of these cysts, the exact mechanism of pathogenesis has not yet been completely described. The ‘enclavement theory’ described by Bhaskar suggests that the lesion arises from the epithelium which becomes entrapped in the mucosa of the oral cavity during embryogenesis. Knapp described the ‘obstruction theory’ where he said that the LECs arise due to an obstruction of the crypts of oral tonsils. He called them ‘pseudocysts’ and not true cysts.<sup>8</sup>

In recent years, LEC has gained more attention due to its association with HIV positive patients. HIV associated LEC of the parotid gland has been reported which can sometimes be the primary and main clinical manifestation of HIV infection.

Lymphoepithelial cyst occurs in all ages and but is frequently reported in 3rd and 4th decades of life.<sup>9</sup>

The oral lymphoepithelial cyst is composed of a cystic cavity. As with all true cysts, it has an epithelial lining. The cyst appears encapsulated by the surrounding lymphoid tissue. The cyst is formed by dilation of the epithelial crypt normally present in lymphoid tissue, producing a cyst lined by stratified squamous epithelium.

The cyst lumen is filled with desquamated keratin and sometimes mucous cells are found in the epithelial lining. Germinal centers are present in the lymphoid tissue of the cyst wall. The fluid is viscous, and keratin content is present. Sometimes a cyst will occur in the proximity of the parotid gland or the lateral aspect of the neck as well. When the cyst is derived from degenerative tissue of the second branchial arch, it is referred to as a cervical lymphoepithelial cyst or a branchial cyst.

The treatment for the Oral LEC is surgical removal, and recurrence is not expected. When the occurrence of the Oral LEC is in the floor of the mouth, confusion may exist with mucous retention cyst and the lymphoepithelial cyst.

Additionally, because of the yellow hue of the Oral LEC, there may be confusion with that of a lipoma, although the lipoma typically occurs in the buccal mucosa region. Salivary stones may have a similar appearance as well, but usually will involve pain. Other considerations may be dermoid cysts and salivary gland tumors. Biopsy confirmation is needed for a definitive diagnosis.

### 4. Conclusion

Lymphoepithelial cysts are uncommon benign lesions which presents as painless yellowish nodules arising from various sites in the oral cavity and other parts of the body. Lymphoepithelial cyst should be kept in mind in the differential diagnosis of tonsillar cysts.

### 5. Source of Funding

None.

### 6. Conflict of Interest

None.

### References

- Bhaskar SN, Bernier JL. Histogenesis of branchial cysts: a report of 468 cases. *Am J Pathol.* 1959;35(2):407–43.
- Wu L, Cheng J, Maruyama S, Yamazaki M, Tsuneki M, Lu Y, et al. Lymphoepithelial cyst of the parotid gland: its possible histopathogenesis based on clinicopathologic analysis of 64 cases. *Hum Pathol.* 2009;40(5):683–92. doi:10.1016/j.humpath.2008.10.012.
- Stramandinoli-Zanicotti RT, Ávila LDC, Izidoro ADA, Izidoro FA, Schussel JL. Lymphoepithelial cysts of oral mucosa: two cases in different regions. *Bull Tokyo Dent Coll.* 2012;53(1):17– 22. doi:10.2209/tdcpublication.53.17.
- Younis S, Bleibel W, Bleibel H, Hernady N. Lymphoepithelial cyst of the pancreas. *Dig Dis Sci.* 2007;52(11):3136–9. doi:10.1007/s10620-005-9055-3.
- Choi CJ, Choi SW, Cho JG, Woo JS. Bilateral lymphoepithelial cysts of the thyroid gland. *Thyroid.* 2010;20(1):111–3. doi:10.1089/thy.2009.0293.
- Ulku R, Yilmaz F, Eren S, Onat S. Lymphoepithelial Cyst of the Mediastinum. *Tex Heart Inst J.* 2005;32(3):440–1.
- Buchner A, Hansen LS. Lymphoepithelial cysts of the oral cavity: a clinicopathologic study of thirty-eight cases. *Oral Surg.* 1980;50(5):441–9. doi:10.1016/s0030-4220(80)80013-2.
- Yang X, Ow A, Chen-Ping Z, Wang LZ, Yang WJ, Hu YJ, et al. Clinical analysis of 120 cases of intraoral lymphoepithelial cyst. *Oral Surg Oral Med Oral Pathol Oral Radiol.* 2012;113(4):448–52. doi:10.1016/j.tripleo.2011.02.051.
- Suzuki H, Baba S, Hashimoto K. Lymphoepithelial cyst in the sublingual region: report of a case and review of literature. *Oral Med Pathol.* 2000;5(2):105–8. doi:10.3353/omp.5.105.

### Author biography

**Deepalakshmi Tantry**, Assistant Professor

**Gururaj Tantry**, Professor

**Rinshin T**, Student

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