# **Original Research Paper**

**Pathology** 

## **EPIDERMAL CYST OF THE BASE OF THE TONGUE - A CASE REPORT**

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Epidermal cysts are common skin lesions, but they occur rarely in the oral cavity. Very few cases have been reported in the literature, and, here we present one such rare case of epidermal cyst of the base of the tongue in a 24 year male patient. The patient presented with the complain of swelling below the tongue which was gradually increasing in size for the past one and half year with difficulty in speech, mastication and closure of mouth. Intraoral examination revealed presence of large solitary swelling in the sublingual region more towards the right side. It was non-tender, fluctuant soft and fixed to the underlying mucosa having no secondary changes. Aspiration cytology was performed which was consistent with the diagnosis of Epidermal cyst.

# **KEYWORDS**: Epidermal cyst, Mastication, Sublingual.

#### INTRODUCTION

Epidermal cysts are common lesion occurring in the skin but only 1.6% occur in the oral cavity and are very rare. They are nonodontogenic cystic lesions. Several synonyms are used like epidermal cysts, epidermoid cysts, epidermal inclusion cysts, infundibular cysts and keratin cyst. It is a benign cyst and develops from ectodermal tissue. While dermoid cyst has an epidermal lining with skin adnexa, such as hair follicle and sebaceous glands, the epidermal cyst contains no such adnexa<sup>1</sup>. These cysts are derived from epithelial remains from the closure process of 1st and 2nd branchial arches<sup>2</sup>. In the tongue region these lesions are derived from the remains of tuberculum impar which together with lateral lingual prominences, forms the body of the tongue and the floor of the mouth<sup>3</sup>. In the oral cavity, epidermal cysts occur most commonly in the floor of the mouth followed by tongue, lips or the inside of the bone<sup>4</sup>. We report a case of epidermal cyst of the sublingual region with review of literature.

### **CASE REPORT**

A 24 year male patient presented with a swelling below the tongue (Fig. 1) since last one and half year. Initially the swelling was small in size but for the past one month the swelling was growing rapidly. It was causing difficulty in articulation, mastication and closure of mouth. Intraoral examination was done which revealed presence of a swelling in the sublingual region towards the right side measuring 5cm x 6cm. It was soft, cystic, non-tender, fluctuant and fixed to the underlying mucosa having smooth surface. No associated lymphadenopathy was seen. There was no discharge from the swelling. Transillumination test was negative. The patient had no other complaints. Ultrasonographic study suggested that the mass was a unilocular cystic lesion. Fine needle aspiration cytology of the swelling was done which yielded pultaceous material. Examination of smears stained with Leishman-Giemsa revealed discrete benign squamous cells and anucleated squames against a dirty background (Fig. 2 and 3). These findings are consistent with the diagnosis of Epidermal cyst.



Fig 1. Swelling present in the sublingual region towards right side

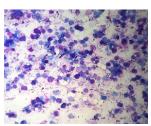


Fig 2. Benign anucleate squamous cells seen against dirty background ( 10X magnification)

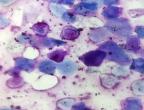


Fig. 3 Benign anucleate squamous cells seen against dirty background ( 40X magnification)

### **DISCUSSION**

Epidermal cyst represents less than 0.01 % of all oral cavity cysts<sup>5</sup>. Epidermal cyst has been described in various parts of the body, out of which only 1.6% are found in oral cavity<sup>6</sup>. In the oral cavity they are commonly seen in the sublingual region followed by lips, tongue and bone<sup>7</sup>. They are basically congenital cysts that may appear due to trapping of ectoderm at the time of fusion of neural tube or other epithelial linings<sup>8</sup>. They may be secondary or acquired due to inclusion of epidermal element into dermis post-traumatically or iatrogenically in which case more appropriate term is epidermal inclusion cyst<sup>9</sup>. Clinically they present as a cystic swelling which enlarge to cause functional problems, such as difficulties in deglutition, speech and respiration<sup>10</sup>. On histopathological examination they show keratin filled cavity lined by stratified squamous epithelium<sup>11</sup>. It is important to differentiate epidermoid cyst from dermoid cyst. Unlike a dermoid cyst, epidermoid cyst lacks appendages like hair or sweat glands<sup>12</sup>. Treatment is complete excision of the cyst. Very large cyst requires marsupialization. Recurrence is rare. If they are left untreated, they grow in size and may cause discomfort in articulation, deglutition and mastication. Multiple epidermal cysts may be a part of Gardner syndrome<sup>13</sup>. Rarely, malignancies like Squamous cell carcinoma, Basal cell carcinoma, Bowen's disease and even mycosis fungoides have been reported in epidermoid cysts<sup>14</sup>.

### CONCLUSION

Epidermal cyst of the base of the tongue is a rare lesion of oral cavity. It generally presents with a swelling with gradual increase in size causing functional disturbances. Recurrence after complete excision is rare and chances of malignant transformation is very low.

Syndromic association with Gardner's syndrome is present. This case is presented for its rarity and it highlights the spectrum of clinical and cytological features with a brief review of literature.

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