

A Rare Case of Epidermoid Cyst in Submandibular Region in Prepubertal Age**Dr. Amit Singh¹, Dr. Veenita Singh², Dr. Mohit Srivastava³, Dr. Sushant Tyagi⁴, Dr. Vrinda Saxena⁵**¹Senior Resident, Department of ENT, SIMS, Hapur, Ghaziabad, U.P., India²Assistant Professor, Department of Dental Surgery, SIMS, Hapur, Ghaziabad, U.P., India³Assistant Professor, Department of ENT, SIMS, Hapur, Ghaziabad, U.P., India^{4,5}Senior Resident, Department of ENT, SIMS, Hapur, Ghaziabad, U.P., India***Corresponding author**

Mohit Srivastava

Email: dr.mohit141180@gmail.com

Abstract: Here we report a rare case of epidermoid cyst of submandibular region in 13yrs old child. He presented with chief complains of swelling in left submandibular region since child hood which was soft and cystic, of size approx. 4.8cm x 3cm, mobile and nontender. CT scan showed features suggesting of epidermoid cyst. Cystectomy was performed under general anesthesia. There was no adhesion to surrounding tissue and the left submandibular gland was preserved. Histopathologically, the cyst wall was shown to be lined by stratified squamous epithelium with no skin appendage, suggesting an epidermoid cyst. Patient was discharged in satisfactory condition.**Keywords:** Epidermoid cysts, oral cavity.

INTRODUCTION

Epidermoid cysts are lined by stratified squamous epithelium and contain keratin debris. Men are mostly affected and such cysts generally appear after puberty [1]. Epidermoid cysts in the oral cavity frequently develop in the midline or sublingual region of the floor of the mouth [2]. Epidermoid cysts are defined as "A simple cyst lined with stratified squamous epithelium and lumen is filled with cystic fluid or keratin and no other specialized structure" [3]. These are true cysts. Their lining resembles that of the normal epidermis. This lining produces fully matured, keratinized cellular debris, which fills the cavity of the cyst. Epidermoid cysts are thought to originate from the follicular infundibulum of hair shafts and may arise either spontaneously or as a result of inflammation or trauma to the area. Injection of surface epidermal material to deeper dermal or subcutaneous layers as a result of penetrating trauma or the use of needles has also been postulated. These cysts are rarely found before puberty, but they have been found in all age groups after this period [4]. Dermoid and epidermoid cysts in the oral cavity frequently develop in the midline or sublingual region of the mouth floor. In the cervical region, dermoid cysts in the lateral neck have occasionally been reported, but an epidermoid cyst in the submandibular region is very rare [2].

CASE REPORT

A 13ys old child presented with swelling in left submandibular region since birth. Previously the swelling was of the size of a grain and progressively

increased in size up to 4.8x3cm. It was soft in consistency, mobile in nature, nontender, non indurated, the overlying skin was normal and there was no fixity to underlying structures. Swelling did not move on deglutition of saliva and on protrusion of tongue.

Patient general examination was normal and there was no history of any associated chronic illness. There was no swelling in the floor of the mouth and there was good salivary flow in the left submandibular gland duct.



Fig 1 : showing swelling in the left submandibular region.



Fig-2: intra-oral findings in the same patient.

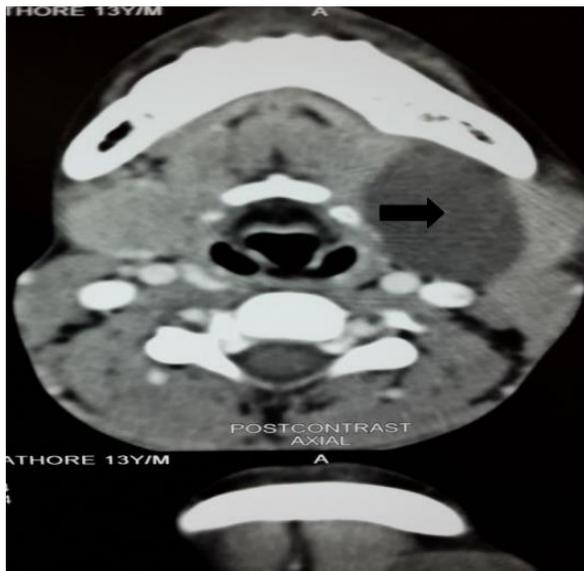


Fig-3: CT-Scan showing axial view of the swelling.



Fig-4 CT-Scan showing sagittal section of the swelling.

CT scan showed unilocular homogenous well circumscribed fluid density non enhancing thin walled cystic mass lesion seen in left submandibular region. It measured 4.2(AP) x 2.6(RL) x 3.9(SI) cms. Imaging findings suggested epidermoid cyst. Parapharyngeal space and masticatory space were normal. Salivary glands were normal. Nasopharynx, oropharynx, hypopharynx and larynx were normal. No supra and infra hyoid adenopathy was seen.

Cyst excision was performed under general anesthesia. A skin incision parallel to the lower border of the mandible was made above the mass and the mass was excised with ease after separating it from all its attachment. There was no adhesion with the left submandibular gland and it was possible to preserve the gland, including the capsule. The postoperative course was uneventful.

Histopathology report showed on gross examination SRCO, single globular soft tissue piece measuring 4.0 x 3.0 x 3.0 cm. On cut-section it was filled with pultaceous material. Cyst wall thickness measured 0.1 to 0.3 cm. Microscopic examination on H & E stained sections showed cyst wall lined by squamous epithelium containing keratin. Adjoining areas showed fibro collagenous tissue, inflammatory cell infiltrate and areas of hemorrhage. Features were of epidermal inclusion cyst.



Fig-5: Post-op image of the excised cyst(in toto).

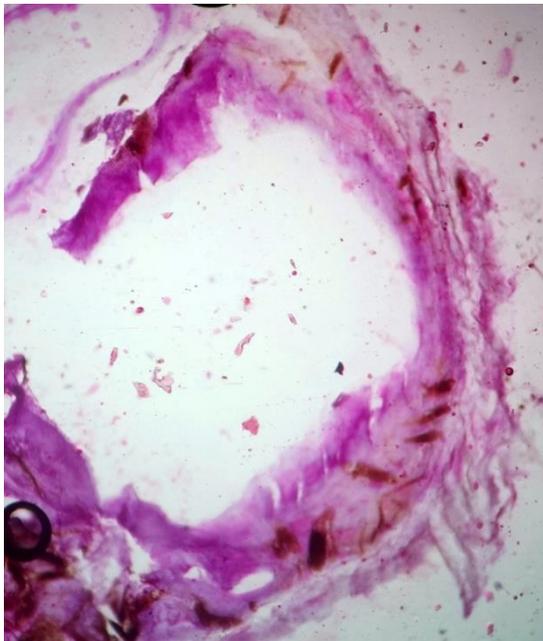


Fig-6 : histo-path slide of the cyst showing features suggestive of epidermoid cyst.

DISCUSSION

Epidermoid cyst is a congenital cyst that may appear due to trapping of ectoderm at the time of fusion of neural tube or other epithelial linings. They may also be secondary or acquired due to inclusion of epidermal elements into dermis post-traumatically or iatrogenically in which case the term epidermal inclusion cyst would be a better terminology [5]. An epidermal cyst is a type of slow-growing lump underneath the skin. This cyst contains soft, cheese-like skin contents. These usually appear on the face, neck,

chest, upper back, genitals, or behind the ears [6]. Epidermoid and dermoid cysts represent less than 0.01% of all oral cavity cysts. Epidermoid cysts have been described in various parts of the body, out of them only 1.6% are found in the oral cavity. In the oral cavity, they are commonly seen in the sublingual area, they may also be seen on the lips, tongue and bone [5]. Epidermoid cysts of the neck are much less common than the dermoid cysts and most often they are located in the sub mental region [7].

On CT or MRI, dermoid cysts typically looks like homogeneous masses, reflecting mixtures of keratin or fat with their. In contrast, epidermoid cysts are likely to be more homogeneous and, when occurring in the sublingual space, may be indistinguishable from simple ranulas. All ranulas are homogeneous, well-defined masses with fluid density on CT or extremely high T2-weighted signal intensity on MRI [8].

The dermoid cyst differs from epidermoid cyst only in the presence within its walls of normal or dysmorphic adnexal appendages, usually sebaceous glands or abortive hair follicles. Recurrence is unlikely after treatment. Malignant transformation of cysts has not been reported [9].

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