

## CASE STUDY

# Sublingual Epidermoid Cyst: A Rare Presentation

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## ABSTRACT

Infection of pilo-sebaceous gland or traumatic migration of epidermis to the deeper layers of the skin can lead to epidermoid cyst. Any site of the body which is lined by squamous epithelium can be the site of epidermoid cyst. We present a case of sublingual epidermoid cyst in a 14-year-old female, who presented with a slow-growing, soft, midline swelling in submental region. Cyst was excised under local anesthesia with sedation. Histopathological examination revealed a cystic wall lined by keratinizing squamous epithelium with lamellated keratin and fibrocollagenous tissue with congested blood vessels, along with subcutaneous fat and muscle bundles, which is suggestive of epidermoid cyst.

**Keywords:** Epidermoid cyst, Keratinized squamous epithelium, Submental swelling.

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## INTRODUCTION

Epidermoid cysts are rare lesions in the head and neck and are most often located in the submental region.<sup>1</sup> They can be present all over the body where squamous epithelial lining is present. The cyst can be defined as epidermoid when the lining present only epithelium, dermoid cyst when skin adnexa are found, and teratoid cysts when other tissues as muscle, bone, and cartilage are present.<sup>2</sup> Diagnosis can be confirmed by histopathological examination. Surgical excision of the cyst is often required and entire cyst wall should be removed to prevent recurrence.<sup>3</sup>

## CASE REPORT

A 14-year-old female patient presented to the Otorhinolaryngology Department of our Medical College, with

the complaint of a midline swelling in submental region with little difficulty in tongue movements. The swelling (Fig. 1) was 3 × 3 cm in size, round in shape, firm, cystic, nontender, mobile, and no movement seen on tongue protrusion or swallowing. Temperature of overlying skin was normal. No punctum or pus point can be appreciated. An old healed scar mark was present. Ultrasonography of the swelling was suggestive of a midline cystic swelling (dermoid/epidermoid cyst). Diagnosis was confirmed by fine needle aspiration cytology. Surgery was planned for excision of the cyst under local anesthesia with sedation. A midline horizontal incision was given over submental swelling; cyst was excised out from the surrounding tissue and removed in total (Figs 2 and 3). The excised swelling measured 4.5 × 2.5 cm (Fig. 4). Wound was closed



Fig. 1: Swelling in submental area



Fig. 2: Swelling *in situ* (front)

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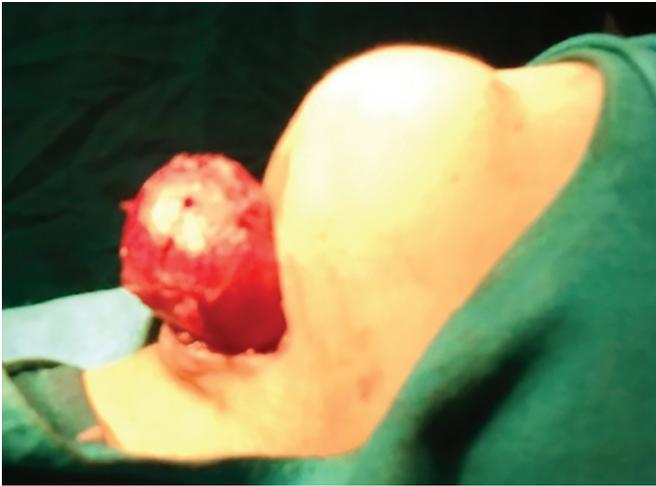


Fig. 3: Swelling *in situ* (lateral)



Fig. 4: Excised swelling

in layers and specimen sent for histopathological examination. Histopathological examination revealed cystic wall lined by keratinized squamous epithelium with lamellated keratin and fibrocartilaginous tissue. Patient did well postoperatively. No recurrence was seen during the follow-up at 6 months.

## DISCUSSION

Epidermoid cyst can be seen anywhere in the body where squamous epithelial lining is present. Only 7% are seen in head and neck, mostly present with a midline, painless, suprahyoid slow-growing swellings, and only 0.1% of them are seen in the oral cavity.<sup>4</sup> These cysts can be congenital or acquired. Congenital cysts of ectodermal origin are extremely rare. Acquired cysts are more common and are usually derived from traumatic or iatrogenic inclusion of epithelial cells or from occlusion of a sebaceous gland duct. Among all the theories of epidermoid cyst formation, the epithelial implant theory is the most commonly accepted theory. The small size cyst remains asymptomatic but larger sublingual cyst can cause discomfort in chewing, tongue movements, and swallowing. Large submental cysts can give a “double chin appearance”.<sup>5</sup> Epidermoid cysts are also described as “pearly tumors” because of shiny, smooth, and waxy character of their dry keratin.<sup>6</sup>

Epidermoid cyst of the floor of the mouth derived from entrapped epithelial rests during midline closure of bilateral first and second branchial arches in third and fourth week of gestation.<sup>7,8</sup>

Ultrasonography is the best investigation for these types of cysts. It is economical, reliable, and without radiation exposure.<sup>9</sup> Fine needle aspiration cytology can differentiate most of the types. Dermoid/epidermoid cysts above the mylohyoid muscle within sublingual

space can be approached by an intraoral approach, and the cyst below the mylohyoid muscle is seen as an obvious submental swelling. An external submandibular approach is preferred.<sup>1</sup> The complete excision without rupturing the cyst is very important as the contents can cause inflammation and recurrence.

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