Case Report

Giant Submental Epidermoid Cyst: A Case Report

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Abstract:

Epidermoid cysts are developmental cystic malformations that are rarely observed in the submental region. Most of the patients present with a painless slow growing lump. We report a rare case of giant epidermoid cyst in 19-year-old male patient complaining of submental swelling. The differential diagnosis included dermoid cyst, epidermoid, plunging ranula, and abnormalities during embryonic development. The lesion was surgically excised using an extra-oral approach. The histopathological examination revealed the diagnosis of an epidermoid cyst.

Key Words:

Epidermoid cyst, dermoid cyst, extravsation cyst

Introduction:

Dermoid and epidermoid cysts are uncommon developmental cystic malformations termed dysontogenetic cyst. Most clinicians and researchers believe that dermoid and epidermoid cysts that appear in the midline floor of the mouth are a result of entrapped ectodermal tissue of the first and second branchial arches, which fuse during the third and fourth weeks in utero. A second theory suggests that midline dermoid and epidermoid cysts may be a variant of the thyroglossal duct cyst with ectodermal elements predominating [1].

Epidermoid and dermoid cysts constitute 1.6 to 6.9% of all cysts in the head and neck region. [2]. The most common location sites are the orbit, calvarialdiploic space and intracranially. The incidence in the floor of the mouth of the oral cavity is rare and represented less than 0.01% of all cysts of the oral cavity. Sublingual, submaxillary and submandibular spaces are common localization in the floor of the mouth [3].

Epidermoid cysts generally present slow and progressive growth, and even if they are congenital, the diagnosis is possible in the second or third decade of life [4]. They appear as painless, asymptomatic mass, slowly increasing in size, usually located in the midline, above or below the mylohyoid muscle. Treatment of epidermoid cysts of the floor of the mouth is surgical and can be intraoral or extraoral according to the localization and the size of the lesion.

Case Report:

A 19 year old male presented with a painless midline swelling in the submental region of the neck of 1 year duration. There was no history of difficulty in swallowing or speech. The symptoms had rapidly progressed in the previous two weeks. There was no dyspnoea.

Examination revealed a tense tender cystic swelling involving the anterior floor of the mouth pushing the tongue upwards and backwards(Fig. 1). The neck swelling was approximately 9×7 cm in the submental triangle, tense, cystic, with smooth surface. Local temperature was mildly elevated. The swelling did not move on swallowing or on tongue protrusion. Indirect laryngoscopy was normal. No other mass lesions or enlarged lymph nodes were noted.

Fig. 1

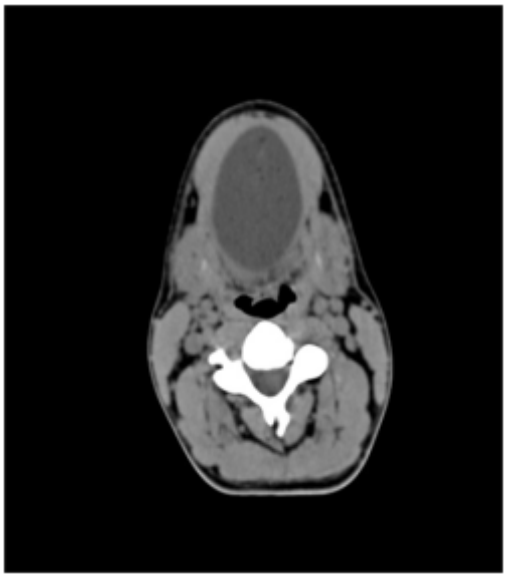

Fig. 2

Complete blood count, biochemistry and X-ray chest were within normal limit. FNAC of the swelling was suggestive of sebaceous cyst. Contrast enhanced CT Scan Neck showed well circumscribed oval shaped smooth wall hypodense lesion measuring =6.5 cm {AP} x 4.3{T} x 7.5{cc} cm in the floor of mouth. Tiny microcalcification were seen with in it and were suggestive of dermoid cyst. (Fig. 2).

Due to extremely large size of the cyst, an extra-oral approach was chosen for surgical excision. Through a midline horizontal incision the cyst was approached and excised completely. The wound was closed in layers after maintaining hemostasis. Postoperative period was uneventful. Histopathology of the cyst confirmed a diagnosis of an epidermoid cyst.

Discussion:

A simple cystic lesion without any skin appendages is termed as epidermoid cyst. The etiology of epidermoid cyst are is due to, traumatic implantation of epithelium or entrapment of epithelial remnants during embryonic fusion. In case of dermoid cyst, it is only due to entrapment of epithelial remnants during embryonic fusion. Dermoid cysts are seen only in areas of fusion especially midline swellings, whereas epidermoid cysts can occur anywhere in the body.[5] Epidermoid cysts may be categorized as congenital or acquired based on their origin, although there is no disparity between the two either clinically or histologically. They may be found in any age group but show preponderance between 15-35 years of age with male predilection.[5,6]. Due to these sublingual swellings in the floor of the mouth symptoms of dysphagia, dyspnea and dysphonia may occur due to upward displacement of tongue.[6] Epidermoid cysts typically feel "dough like" on palpation, although they may be fluctuant and cyst like based on consistency of the luminal contents that may range from a cheesy, sebaceous to liquefied substance. Treatment

comprises total surgical excision without any rupture because spillage of the cystic contents to the underlying fibrovascular structures can cause post operative inflammation.[7] Recurrences of these cysts are very rare.In the current case we adopted a extraoral approach. The postoperative course does not present any complications.:

Conclusions:

In conclusion, a case of giant epidermoid cyst was successfully diagnosed and managed. The appropriate imaging techniques are very effective in preoperative period. Fine needle aspiration cytology of the mass is not always diagnostic. Differential diagnosis includes infections, tumors, mucous extravasation phenomena and embryonic abnormalities. Surgical excision is the treatment of choice.

Competing Interests

The authors declare that they have no competing interests.

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