

Epidermoid Cyst of Submandibular Region: An Unusual Site for Occurrence

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ABSTRACT

Although they are exceedingly uncommon in the salivary glands, epidermoid cysts are a very common skin condition. These cysts begin as a traumatic epithelial implantation during prenatal life or as the trapping of epithelial remains that may manifest later in life. Here, we present one of the extremely uncommon occurrences of an epidermoid cyst in a woman who was 25 years old and had it in her left submandibular gland.

Keywords: Submandibular salivary gland; Epidermoid cyst; Developmental cyst; Benign lesion

INTRODUCTION

Less than 0.01% of all oral cavity cysts are epidermoid cysts, which are slow-growing cysts that frequently appear as skin lesions and are typically presented as benign features. ^[1] It develops during intrauterine life when the first and second branchial arches close bilaterally and epithelial remnants become stuck. ^[2]

The literature search identified extremely few examples of parotid gland ^[3] and submandibular gland primary epidermoid cysts, which seem to be uncommon in salivary glands. ^[4-6] Malignant transformation should be kept in mind because the diagnosis of an epidermoid cyst in the submandibular gland might be confused with a salivary gland abscess, neoplasm, and other cysts. ^[7] As a result, surgical removal is required for a histological diagnosis.

CASE REPORT

A 25-year-old female patient arrived at our Apollo E.N.T. Hospital in Jodhpur with a three- to five-year history of swelling on the left side of the neck, close to the angle of the mandible (Figure 1). Her general practitioner had given her a course of antibiotics, but she had no effect. The swelling steadily grew larger while showing no symptoms of inflammation. It was 3 x 3 cm, soft, cystic, well-localized, non-compressible, and non-tender upon examination. Skin on top was pinchable. A well-defined, hypoechoic, oval mass with internal echoes measuring 34 x 35 x 50 mm was discovered during an ultrasound evaluation of the edoema (Figure 2). The lesion underwent Fine Needle Aspiration Cytology (FNAC), which was suggestive of an epidermoid cyst. Under general anaesthesia, the patient is scheduled for the removal of a left submandibular cyst. The cyst was

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connected intraoperatively immediately below the submandibular gland and was encroaching on the mylohyoid muscle fibres (Figure 3). The cyst's capsule was left intact after the cyst was removed along the submandibular gland (Figure 4). The marginal mandibular nerve was very well maintained. Following surgery, the patient was prescribed antibiotics and analgesics for seven days. The surgical specimen's histopathology identified it as an epidermoid cyst.



Figure 1: Clinical picture showing swelling at Left submandibular region.

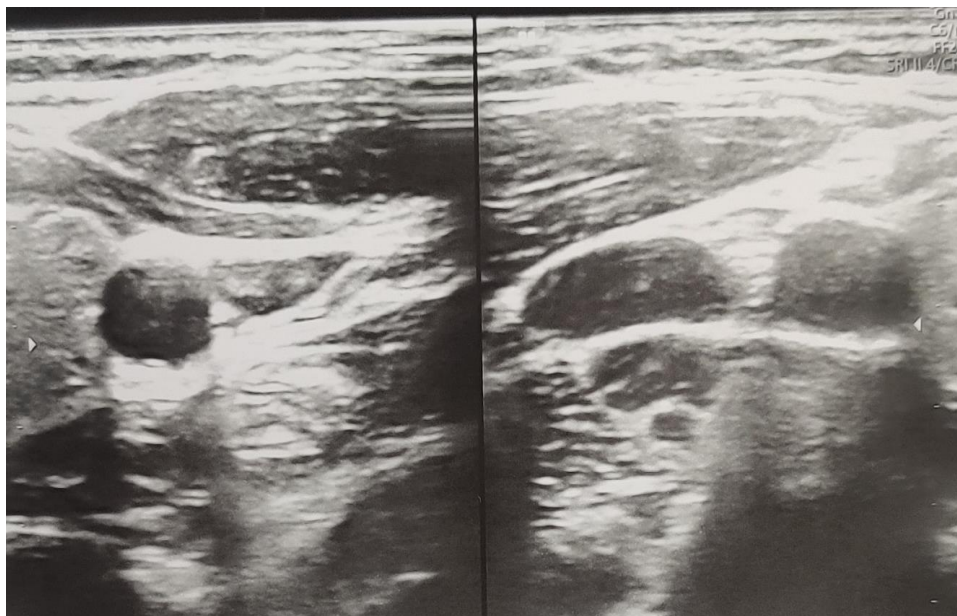


Figure 2: Ultrasonography showing well-defined, hypo-echoic, oval mass with internal echoes in the left submandibular region.



Figure 3: Intraoperative cyst is attached below the normal submandibular gland within the fibres of mylohyoid.



Figure 4: Surgical specimen showing cyst part attached with submandibular gland.

DISCUSSION

Epidermoid cysts are benign developmental lesions that can arise anywhere and are surrounded by squamous epithelium. Only 7% of predilections occur in the head and neck, although ovaries and testicles are the most often affected areas. It could be acquired or inherited. Congenital cysts can appear in the third and fourth weeks of intrauterine life as a result of the ectodermal elements being arrested during the midline fusion of the first and second brachial arches or as a result of a tuberculum impar between the two mandibular arches. Acquired cysts may develop after the iatrogenic or traumatic occlusion of sebaceous gland ducts or epithelial-cell inclusions. Our patient had no history of surgery or trauma.

Ultrasonography is the initial imaging modality of choice to evaluate the internal structure of a mass. Ranula, thyroglossal duct cyst, cystic hygroma, brachial cleft cysts, heterotopic gastro-intestinal cyst, foregut duplication cysts and epidermal inclusion cysts are the differential diagnosis of epidermoid cyst. ^[9,10] In our case, the epidermoid cyst next to the submandibular gland was completely removed without any complications using a horizontal incision in the submandibular region. The compressive effect of the cyst and cyst rupture due to infection are the most frequent side effects connected to epidermoid cysts. At the six-month follow-up and during the postoperative period, we saw no issues in our patient. The most crucial factor to consider was

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whether the squamous epithelium had undergone a malignant change. Therefore, all epidermoid cysts should be completely removed and given a rigorous histological evaluation to check for nuclear atypia and stromal invasion potential. ^[11,12]

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