A Case Report

A Unusual Case of Epidermoid Cyst in Parotid Gland

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Abstract: Cystic lesions are common in the head and neck. The most common are the cutaneous cysts, which are referred to as epidermal cysts. These cysts presents as nodular and fluctuant subcutaneous lesions and they are seen most commonly in the acne prone areas like the head, neck and back. They arise following a localized inflammation of the hair follicle and occasionally after the implantation of the epithelium, following trauma or surgery. the presence of benign cystic lesions in the salivary glands is rare. We are presenting a rare case of 30yr old female who presented with a soft swelling on left side of the face. A diagnosis of an epidermoid cyst was given on cytology. Enucleation of cyst was performed and the histopathology confirmed the diagnosis.

Keywords: Epidermoid cyst, Salivary glands, Fine Needle Aspiration Cytology, Histopathological examination, Enucleaion.

Introduction

Epidermal cysts are common lesions occurring in the skin.[1] Only 1.6% occur in the oral cavity and are rare. [2] However, primary epidermal cysts of salivary glands are very rare. Very few cases in parotid gland[13] and some cases in submandibular gland[1,4,5] have been reported.

The cyst develops out of the ectodermal tissue. Histologically, it made of a thin layer of squamous epithelium. The several synonyms are epidermal cyst, epidermal inclusion cyst, infundibular cysts and keratin cysts. The epidermal inclusion more specifically refer to the implantation of epidermal elements into the dermis. The presence of epidermoid cyst was given on cytology and it was later on confirmed on histopathologically. There are only very few case reports on epidermoid cyst which had occurred in parotid gland, which have been published in the world literature.

Case Report:

A 30yr old female presented with swelling on preauricular region, which was of 3 years duration. The swelling was insidious in onset and was gradually increasing in size. There was no history of pain, fever, difficulty in swallowing or any discharge from swelling. There was no other swelling present anywhere else over the body .History of similar complaint in the past present 10-12 years back for which Incision and drainage was done. On examination, a solitary globular swelling was seen in left preauricular region. The swelling was about 2x3cm in size with lifting of ear lobe. There was scaring on the skin over the swelling from previous incision and drainage with no discharge.

On palpation, the swelling was soft in consistency, non tender, mobile and non-pulsatile. Intra orally, there was no swelling present. No other glandular swelling was palpable.

On aspiration there was thick, pultaceous cheesy material. On fine needle aspiration cytology there were sheets of benign superficial and intermediate squamous cells in a background of a mild inflammatory infiltrate suggestive of epidermoid cyst.

CECT neck was done and showed a well defined smoothly marginated hypodense lesion predominantly of fat attenuation in left parotid predominantly in superficial lobe and part of it is extending into deep lobe. The lesion measures 3.3 × 3.1cm (Figure 1)Mild mass effect is seen in the form of posterior displacement of left sternocleidomastoid. Multiple soft tissue density masses s/o lymph nodes were seen in station 1a, 1b, 2, 3, 4, 5 bilaterally. Largest in 1B i.e 4mm on

left side.(figure 2) The lesion was suggestive of ↑encapsulated lipoma (uniform fat density).

Patient was taken up for surgery under general anaesthesia. Keeping all aseptic conditions incision was given cyst wall was found adherent to cartilaginous part of EAC posteriorly by fibrous band. Adhesions were removed and cyst enucleated in toto. Gross examination revealed a grey –brown, globular mass measuring about 3cmx3cm in size and cut surface yielded pultaceous cheesy material. The cyst was sent for histopathological examination which reported that the cyst was lined by stratified squamous epithelium with an intraluminal laminated keratinized material that confirmed the diagnosis of epidermoid cyst in the left parotid gland. Post operative follow up period was uneventful with normal functioning.

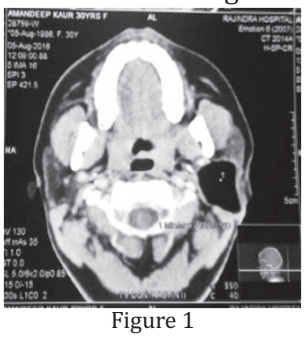

Figure 1

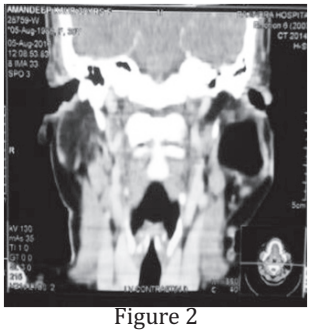

Figure 2

Discussion

Epidermoid cysts are common skin lesions that consist of epithelium lined cavities which are filled with viscous or semisolid epithelial degradation products.[8] Epidermal cysts of the oral cavity are very rare entity and only 1.6-1.9% of all epidermal cysts are located in the oral cavity.[9]

Epidermoid cysts usually occur secondary to obstructions, whereas dermoid cysts arise from developmental epithelial remnants or they are secondary to traumatic implantations of epithelial fragments.[10]

Epidermal cyst of parotid gland is a very rare benign cystic lesion that requires surgical intervention and is seen in young to middle age adults.[6] Both men and women are equally affected and they are commonly seen between the fifth and seventh decades of life.[10] It is derived from the epidermis and is formed by a cystic enclosure of the epithelium within the dermis, that becomes filled with keratin and lipid- rich debris.[7] It can occur at the site of surgical incisions due to iatrogenic implantation of the epidermis into the deeper tissues. [3,11] Its clinical and radiological characteristics can be ambiguous. Its histology shows predominantly squamous cells. Such lesions are quite unusual and they are not included in the WHO classification.[11] The cysts clinically are painless swellings without any attachment to the overlying skin and involvement of facial nerve.[6] The cystic lesions of parotid are either congenital or acquired. The congenital lesion most common are ectodermal in origin and they include branchial cleft cyst/ lymphoepithelial cysts. The acquired cysts can be due to obstuctions, neoplasms,calculi and trauma. The neoplasms include benign mixed lesions, Warthin's tumour, mucoepidermoid carcinoma, adenoid cystic carcinoma and and acinic cell carcinoma, all of which can present as cystic lesions.[3]

The diagnosis of cystic lesions is challenging owing to the difficulty of determining the benign versus the malignant processes. Malignant lesions are frequently suspected when there is a rapid enlargement which is associated lymphadenopathy or facial nerve paresis.[6,12] This distinction plays an important role in determining the treatment modality. The treatment is surgical excision of the cyst. Care should be taken not to rupture the cyst which can lead to post operative inflammation and also to preserve the vital structures during surgery.[13]

The pre operative diagnosis of the lesion plays an important role. Fine needle aspiration cytology is the most reliable and the least expensive method which helps in making a pre operative diagnosis.

Conclusion

Epidermal cysts of the parotid gland origin are extremely rare and a diagnostic challenge, but still, epidermal cysts should be considered as a differential diagnosis in cases of painless long standing enlargement of parotid gland which is soft in consistency.

Conflict of Interest: None

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