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RARE CASE OF CHRONICALLY INFLAMMED EPIDERMAL INCLUSION CYST OF SUBMANDIBULAR GLAND - A CASE REPORT

Surgery

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ABSTRACT

Epidermal inclusion cysts can occur anywhere in the body, with face, scalp, neck and trunk being the more common areas, of which head and neck region accounts for 7% of cases. Less than 0.01% of oral cysts are reported to be epidermoid. In a rare presentation , a 25year old male presented to our institution with complaints of swelling near the jaw below the left ear lobe since 4 months, associated with pain since 15 days. Examination revealed a soft , fluctuant , tender swelling in the left submandibular region, with Ultrasound revealing a cystic lesion arising from left submandibular gland, probably an Epidermal inclusion cyst, which was later confirmed by FNAC. Excision of the cyst along with left submandibular gland was done with a 10 cm x 5 cm cyst noted arising from posteromedial aspect of submandibular gland. Biopsy of the excised tissue was done, which revealed histological features suggestive of epidermal inclusion cyst with chronic inflammation.

KEYWORDS

Epidermal inclusion cyst, keratinous cyst, swelling, cystic, excision, inflammation.

INTRODUCTION:

Epidermal inclusion cysts are known with various names such as epidermal cysts,epidermoid cysts,infundibular cysts, keratinous cysts. Most common presentation is asymptomatic, with the most common symptom being pain in the setting of inflammation or infection. Patients may also complain of discharge from the swelling. Incidence varies,with most of the patients in the age group of 30 to 40 years old, with a male preponderance of ratio 2:1.

Case Report :

A 25year old male presented to the OPD with complaints of swelling near the left angle of mandible since 4 months,associated with pain since past 15 days, with no other associated symptoms. No history of similar complaints in his past,with no significant family history and no significant medical or dental history and no comorbidities, with history of alcoholism and gutka chewing since 4 years.

Examination :

25year old male was examined in sitting position under well lit conditions after taking informed consent and exposing till nipples.

Patient vitally stable.

A solitary, soft, fluctuant, tender oval shaped swelling of size 5cm x 3cm noted in left submandibular region extending below upto 3 cm from mandibular margin(**fig : 1.1)** medially 2cm from midline, upper border not palpable.Skin was pinchable over the swelling**(fig : 1.2)**, with negative bimanual palpation and no palpable lymphnodes.

Oral cavity was normal.

Fig : 1.1

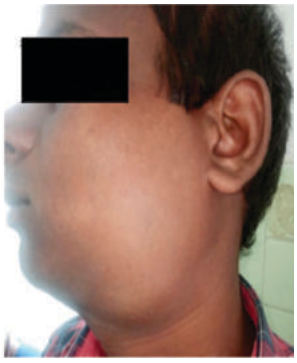

Fig : 1.2

Investigations :

BLOOD PICTURE	
Hb	17.8 gm/dl
TLC	8390 cells/mm3
Platelets	231000/mm3
ULTRASOUND OF THE AREA	
Thyroid - e/o 5.8 x5.5 mm cystic lesion wider than taller noted in inferior pole of thyroid - e/o relativelywell defined ncapsulated reactive lesion with pseudotestis appearance(fig : 2.1) measuring 5.5 x 1.9 cm noted in left submandibular region displacing the gland superiorly with no in grown vascularity - LIKELY EPIDERMAL INCLUSION CYST.	

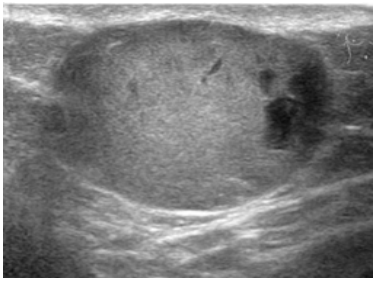

Fig : 2.1

CT SCAN
evidence of well defined hypodense cystic collection measuring AP - 6.7 cm T 3.8 cm CC - 3.2 cm noted arising from left submandibular salivary gland, likely epidermal inclusion cyst with extensions as follows - Suggesting FNAC correlation. Extensions - Superiorly : upto floor of mouth Medially : upto midline by displacing left anterior belly of digastric with maintained fat planes Inferiorly : till hyoid bone Posteriorly : closely abutting left internal carotid vessel with maintained fat planes Evidence of few swollen lymph nodes noted in 1A and bilateral 1B,largest measuring 10 mm x 7 mm in left 1B.
FNAC report
Clusters, sheets and singly scattered anucleated squamous cells, along with few nucleated squamous cells, scattered neutrophils and karyorectic debris against a keratinous necrotic background - Left submandibular swelling - KERATINOUS CYST.
HISTOPATHOLOGY REPORT(BIOPSY)

Sections studied shows cyst lining composed of flattened epithelium with granular layer showing keratohyaline granules(fig : 3.1), lamellated and acellular keratin , with lymphocytic reaction noted(fig : 3.2). -Histological features suggestive of EPIDERMAL INCLUSION CYST with CHRONIC INFLAMMATION.

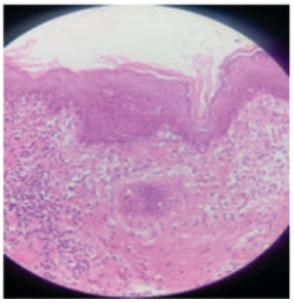

Fig : 3.1

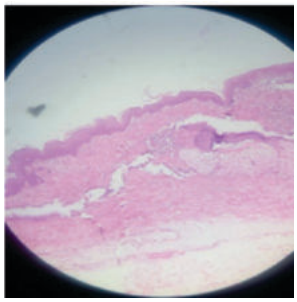

Fig : 3.2

Management :

Excision of left submandibular gland was done,via a 5cm incision taken 2 cm below the body of mandible, extending from midline to anterior border of left sternocleidomastoid muscle, with a 10 cm x 5 cm keratinous cyst noted arising from posteromedial aspect of submandibular gland. Cyst was punctured and cyst wall removed completely along with the gland and hemostasis secured.Post operative period was uneventful, with the pateint being discharged on 5th day and being relatively asymptomatic in subsequent followups.

DISCUSSION :

Epidermal inclusion cysts result from the proliferation of epidermal cells within a circumscribed space of the dermis,with the source of epidermal cells nearly always being infundibulum of hair follicle. They may also result from sequestration of epidermal cell rests during embryonic life, or traumatic / surgical implantation of epithelial elements, HPV infection, UV radiation, etc.

Most of the cysts are asymptomatic, with a few becoming inflammed or infected and present with pain and tenderness. Inflammation is mediated mainly by the keratinous material contained in the cyst, which is found to be chemotactic to polymorphonuclear cells. In the uncommon event of malignancy, rapid growth, friability and bleeding can occur.

They can appear as flesh colored to yellowish ,firm, round nodules of variable size with or without a punctum.

Diagnosis is mainly done by an ultrasound scan ,with other imaging modalities such as CT scan and MRI scan useful in delineating tissue planes and plan surgery accordingly. FNAC is done, with gram stain of smears demonstrating nucleated keratinocytes and wavy keratin material.

Asymptomatic cysts need not be treated, with intralesional triamcinolone injection shown to hasten the resolution of inflammation. Surgical excision of the cyst is the treatment of choice in symptomatic cases, with recurrence being a common complication if the entire cyst wall is not excised.

Epidermoid cysts usually have a good prognosis, rarely progressing to malignancy, which,if it occurs, is most commonly a Squamous cell carcinoma.

CONCLUSION :

Epidermal inclusion cyst in submandibular gland is a rare occurence, with only 0.01% of oral cavity cysts reported to be epidermoid. Patient was treated with excision of cyst and diagnosis was confirmed by biopsy. Patient was discharged on fifth post operative day and on subsequent followups was found to be relatively symptom free and recovery was uneventful.

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