CASE REPORT

Epidermal Cyst of Submandibular Gland

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Summary

The differential diagnosis of a cystic lesion in the submandibular area can be difficult. We report a case of epidermal cyst of submandibular gland which is relatively rare compared to the commoner epidermoid cyst.

Key Words: Epidermal cyst, Submandibular gland

Introduction

Swelling in the submandibular region is commonly seen in surgical practice. This can be due to enlargement of submandibular gland or lympadenopathy in this area. Submandibular gland enlargement can be due to sialoadenitis or occasionally, benign or malignant tumor. These are usually firm to hard lesions. Cystic lesions of the submandibular gland are relatively uncommon. These can range from epidermoid cyst to submandibular mucoceles. Epidermal cysts is an distinct pathological entity with different aetiology from the commoner epidermoid cyst.

Case Report

A 24 year old housewife presented with a swelling in the submandibular region for the past fifteen years. It has been progressively increasing in size till present. She denied any symptoms, except occasional tightness and discomfort recently. On examination, a large swelling (6 x 4 cm) was noted in the submandibular region. The swelling was non- tender, cystic in nature with diffuse margins (Figure 1). It was fluctuant, non transilluminating and not attached to the skin. The floor of the mouth was raised on the right side.

CT scan showed a large cystic swelling in the submandibular region, extending into the floor of the mouth and into the tongue musculature. No other abnormalities were noted. A clinical diagnosis of cystic hygroma was made and surgical exploration was carried out on 6th February 2002. A cystic lesion measuring 5 x 3cm, extending from the submandibular region into the mylohyoid muscle and into the intrinsic musculature of tongue was removed in toto. A portion of salivary gland, presumably rudimentary submandibular salivary gland , measuring 3 x 2cm was also removed, attached posteriorly to the cystic swelling (Figure 2).

Post-operative recovery was uneventful and she was discharged well. On follow-up the incision has healed well with good cosmetic results. Histopathological diagnosis revealed the cyst wall to contain fibrous tissue lined by squamous epithelium with focal collection of giant cells and histiocytes. This was consistent with epidermal cyst. The salivary gland revealed a seromucinous salivary gland infiltrated by lymphocytes consistent with a portion of submandibular gland.

Discussion

Cysts, by definition, are common skin lesions that consist of epithelial lined cavity, filled with viscous or semi solid epithelial degradation products. Epidermal cyst usually occurs secondary to obstruction while

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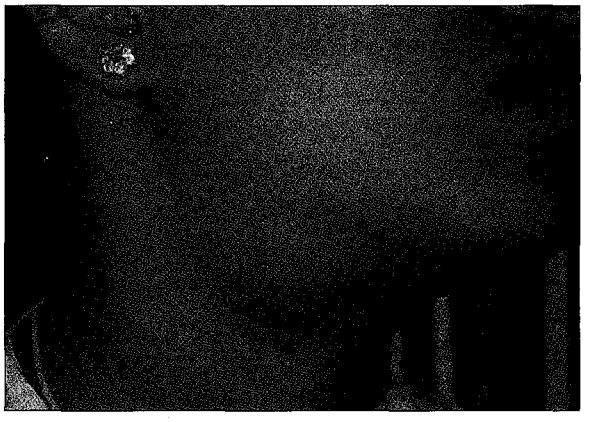

Fig. 1: Submandibular swelling on neck examination

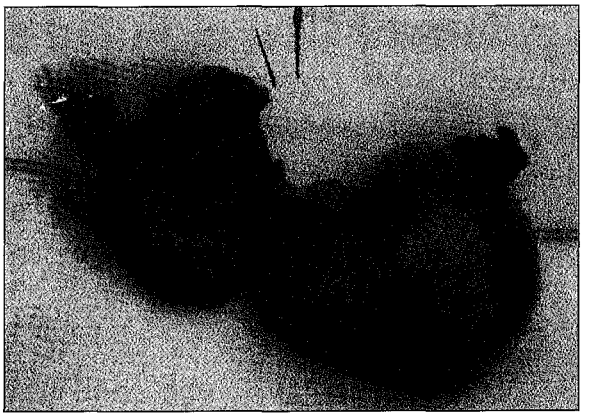

Fig. 2: Post surgical specimen: Epidermal cyst attached to rudimentary submandibular gland

dermoid cyst arise from developmental epithelial remnants or secondary to traumatic implantation of epithelial fragments[1]. Epidermal cyst, histologically has a stratified squamous lining epithelium and is usually filled with keratin. Dermoid and epidermoid cysts, on the other hand, although lined by stratified squamous epithelium, contains skin adnaxea or other ectodermal structures like sebaceous gland and hair follicle[1]. Implantation dermoids, although pathologically similar to epidermal cyst, are not derived from epidermal appendages and may contain foreign body[1].

The clinical and radiological differential diagnosis of cystic lesions of the submandibular region can be difficult. Submandibular mucoceles have been reported and its features are similar to a plunging or cervical ranula. The presence of the so- called 'tail sign' in Computerized Tomography is pathognomic for plunging ranulas and this is absent in mucoceles[2]. Other cystic lesions in the submandibular region include true dermoids, epidermoid cyst and salivary duct cyst[3,4]. The postulated pathogenesis of epidermal cyst in this patient would be obstruction in the main salivary duct within the substance of the gland leading to epithelial lined cavity, filled with viscous or semi solid epithelial degradation products. This could be due to congenital stenosis of the duct since this lesion was first noticed in childhood. This would also explain the intraoperative findings where a portion of the submandibular gland was attached posteriorly to the cyct.

Surgical management consists of excision of the cyst. Surgical complication can be damage to the lingual, mandibular branch of facial and hypoglossal nerve. Care must be taken to preserve these structures.

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