CASE REPORT

Giant Submandibular Epidermoid Cyst Mimicking Ranula

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ABSTRACT

Background: Epidermoid cyst is a subgroup of dermoid cyst which occurs in the midline. They make up less than 0.01% of oral cavity cysts out of 1.6% to 6.9% of all cysts in the head and neck area.

Objectives: To present a rare case of epidermoid cyst in the submandibular region and lateral floor of mouth highlighting imaging features in coming to a diagnosis and challenges faced during surgical excision.

Methods: We report a case of a 19-year-old lady who presented with a one-month history of painless, slow growing mass in the left submandibular region extending to the submental area. She complained of multiple accidental biting onto left side of the mouth. Examination revealed a diffused, firm, left submandibular and submental mass with elevation of the floor of the mouth and a bulge at base of tongue on the left. The initial fine needle aspiration cytology revealed only blood cells. The imaging findings were suggestive of a ranula. A transcervical excision of the lesion and left submandibulectomy were performed as the lesion was attached to the submandibular gland.

Result: Histopathology examination of the lesion revealed it to be an epidermoid cyst. The patient recovered well without any associated nerve palsy.

Conclusions: Cystic lesions in the submandibular area are rare and may pose a difficulty in attaining an accurate clinical and imaging diagnosis. Complete surgical excision provides cure for epidermoid cyst with low risk of recurrence.

KEY WORDS

epidermoid cyst, dermoid cyst, ranula

INTRODUCTION

Epidermoid cyst is a subgroup of dermoid cyst which histologically has a stratified squamous lining epithelium and is usually filled with keratin without other skin adnexa. The two are developmental cystic malformations termed dysontogenetic cyst as a result of entrapped ectodermal tissue of the first and second branchial arches, which fuse during the third and fourth week of embryological development. We report a case of rare presentation of epidermoid cyst in the submandibular region and lateral floor of mouth with review of the literature.

CASE REPORT

A 19-year-old lady presented with a one month history of painless, slow growing mass in the left submandibular extending to the submental area. She complained of repeated accidental biting onto the left side of floor of mouth and present of a 'double chin' despite no weight gain. She denied intraoral discharge, odynophagia, dysphagia or other obstructive or constitutional symptoms. Examination revealed a firm, and non-tender left submandibular swelling/mass measuring 3 cm x 4 cm, with associated submental fullness. The left floor of the mouth was raised from the region of left canine tooth extending posteriorly to the base of tongue with normal overlying mucosa, it was firm on palpation and did not cross the midline. It was ballotable with associated a left submandibular swelling. The tongue was slightly deviated to the right; however its movements were normal. There were no palpable cervical lymph nodes. Flexible nasopharyngolaryngoscopy revealed a bulge at the left base of tongue with no airway compromise.

Ranula was the first differential diagnosis that we considered; however, its location was more lateral, and it had a firm consistency which was not typical of a cystic lesion. A fine needle aspiration cytology (FNAC) of the left submandibular mass was suspected as a vascular tumour. Magnetic resonance imaging (MRI) of the neck was done (Figure 1). The MRI diagnosis suggested a sublingual ranula with the differential diagnosis of a dermoid/epidermoid cyst. This lesion had no tail and was seen to compress and displace the left submandibular gland posterolaterally. It caused bowing of the left mylohyoid and digastric muscles and displaced the genioglossus muscle to the right. After the imaging was reviewed, biopsy was taken from the intraoral mucosa overlying the mass as FNAC had a poor yield. Histopathological report showed no evidence of malignancy. We then proceeded with left submandibulectomy and transcervical excision in view of the preoperative diagnosis of a ranula and the intraoperative findings are shown in Figure 2. The histopathological examination of the specimen revealed a thick fibrocollagenous cyst wall lined by benign stratified squamous epithelium and granular tissue layer with attached laminated squames in areas, which was consistent with an epidermoid cyst. Upon review at six months post operation, the patient was well with no signs of recurrence seen.
A cystic lesion in the floor of mouth is rare and the differentials that should be considered may be of developmental origin, neoplastic or infectious. In this case, malignancy was unlikely as the patient was young with a slow growing lesion and had no constitutional symptoms or cervical lymphadenopathy. A painless lesion, in the absence of fever with an insidious presentation made infection a less likely diagnosis, even though a chronic infection like tuberculosis had to be excluded. A sublingual ranula was considered, supported by the imaging findings and it was more common than a dermoid cyst in this region. Dermoid cysts are classified into three group histologically by Meyers with the commonest being epidermoid cysts, which consist of an epithelial-lined wall that may be partly keratinized; dermoid cysts, which contains skin appendages, including hair follicles, hair, sweat and sebaceous glands; and teratoid cyst, a dermoid cyst with mesodermal elements such as bone, muscle, respiratory/gastrointestinal tissues, and a fibrous capsule. The teratoid type has shown malignant transformation. They can be congenital or acquired and present around the second or third decade of life. Surgical enucleation either via intraoral or extraoral approach is the proposed treatment. The approach based on the anatomical classification and size of the cyst. Anatomic classification divides the cysts of the floor of the mouth into three groups according to their relation to the mylohyoid and geniohyoid muscles. Intraoral approach is suggested for lesions above the geniohyoid and extraoral or combined approach are suggested for cysts with extension into the submaxillary region or the neck. Extraoral technique includes a submental incision or transcervical approach like the one we used for our patient. Dermoid cysts generally have good prognosis with low incidence of recurrence, however, enucleation is recommended as the teratoid variant has a small risk of malignant transformation.

REFERENCES