

Rare Benign Cystic Teratoma in Parotid Gland

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Abstract

A teratoma is a tumour made up of several different types of tissue, such as hair, muscle, or bone. They typically form in the ovaries, testicles, or tailbone and less commonly in other areas.

A 13 years old female was presented to our dental clinic of Princes Basma Hospital in Irbid in north of Jordan, with a painless, insidious progressive swelling in left parotid region without any significant family and personal history. There was no pain or any history of trauma. It was present just inferior to left ear cartilage. The mass was of size 3x3cm, non-tender, fixed, soft to firm in consistency, having smooth surface.

Teratoma in parotid region is an extremely rare entity. With lack of any pathognomonic feature, it is hard to diagnose preoperatively. Lumpectomy is advisable to remove the mass because of the risk of damaging facial nerve in young patients and recurrence is rare. A definitive diagnosis is achieved after the histopathological study. Teratoma should be kept in account while evaluating a case of a soft tissue mass of parotid gland as a differential diagnosis.

Introduction

Parotid tumors are the most common type of salivary gland tumors, accounting for 80 to 85 percent of all salivary gland tumors. While most parotid tumors are noncancerous (benign), the parotid glands are where nearly 25 percent of cancerous (malignant) salivary gland tumors develop.

The parotid glands, located just in front of the ears on each side of the face, are the largest of the three sets of major salivary glands. They are responsible for producing saliva to aid in chewing and digesting food.

Parotid tumors may present a variety of characteristics. If one has a parotid tumor, we may notice a mass or swelling in your jaw area that may or may not be painful. If the tumor seems to be malignant, it may also affect facial nerves, causing pain, numbness, a burning or prickling sensation, or loss of movement in the face.

A teratoma is a tumour made up of several different types of tissue, such as hair, muscle, or bone. They typically form in the ovaries, testicles, or tailbone and less commonly in other areas [1]. Teratomas may be found in babies, children, and adults. Teratomas of embryonic origin are most often found in babies at birth, in young children, and, since the advent of ultrasound imaging, in fetuses. Benign cystic teratomas are very rare in the salivary glands and only few cases were reported [2].

Fine needle aspiration (FNA) cytology is a valuable procedure in the primary diagnosis and management of cystic parotid gland lesions. The diagnostic accuracy of this procedure can be significantly improved by acquiring a detailed clinical history, obtaining an adequate cellular specimen, and having knowledge of the variety and frequencies of possible diagnostic entities that may present as cystic parotid gland lesions.

Case Report

A 13 years old female was presented to our dental clinic of Princes Basma Hospital in Irbid in north of Jordan, with a painless, insidious progressive swelling in left parotid region without any significant family and personal history. Parents were cancerphobic and nervous from the condition of their daughter, they were very confused. There was no pain or any history of trauma. It was present just inferior to left ear cartilage. The mass was of size 3x3cm, non-tender, fixed, soft to firm in consistency, having smooth surface.

Fine needle aspiration cytology came out to be of cystic lesion. CT (computed tomography) of that area revealed a hypodense space occupying lesion of size 3x3cm, after haematological investigations, ECG, chest x ray, patient was prepared for surgery.

Post Tragus Incision done to perform lumpectomy. The mass was well encapsulated without interfering the facial nerve. It was smoothly dissected except the upper part was attached to ear cartilage, so we needed to detach by scalpel and it was punctured, then yellow discharge was released. We removed small part of the surface of the ear cartilage. Fig (1)



Figure 1: Operation view

The mass was sent to histopathology department in 10% formalin. Figure (2).



Figure 2: Biopsy in formalin

After one week stiches were removed and patient came after two weeks with the histopathology report; final diagnosis was benign cystic teratoma. Patient was doing well. Figure (3).

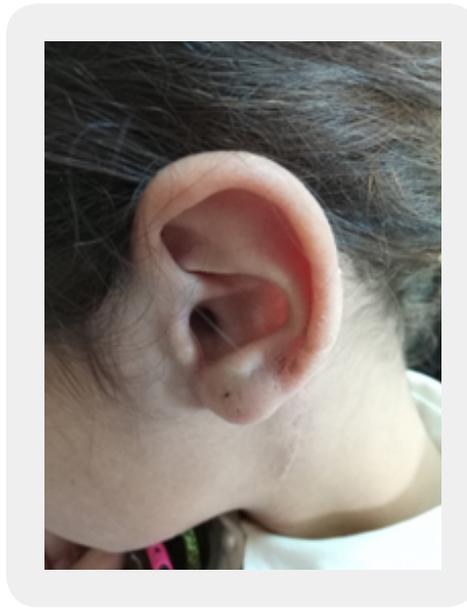


Figure 3: Postoperative Scar

After one year patient came to our clinic without any problems or signs of recurrence and the wound was healed fine.

Discussion

A mature cystic teratoma in parotid salivary gland was first described in 1975 by Shadid *et al* [3]. Parotid is a common site for cysts which may be congenital or acquired. Congenital cysts can be branchial cleft cyst, branchial pouch cyst, congenital duct cyst or dermoid cyst. Acquired cysts may be of traumatic, neoplastic, calculi or parasitic i.e. hydatid cyst. Cysts can occur at any part of parotid. CT is better than Ultrasound to define the teratoma extent, relation to the surrounding organs and in evaluate cystic wall. The recommended treatment for parotid teratomas is surgical excision and recurrence is rare [4]. Recurrence rate depends upon the stage of histological immaturity.

It is very difficult to diagnose teratoma before final excision and rare recurrence make planning for total parotidectomy is problematic. Lumpectomy is satisfied procedure to preserve facial nerve, but follow up is very important because of risk of malignant transformation.

Conclusion

Benign cystic teratoma is very rare in salivary glands. Surgical excision is for treatment and final diagnosis. In the parotid gland we must take into account high risk of facial nerve damage, so we prefer to make lumpectomy with periodic follow up.

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