

## A rare case, pleomorphic adenoma perforate cheek mucosa

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### حالة نادرة: ورم (متعدد الاشكال) للغدد اللعابية الصغيرة يثقب الجهة الداخلية للخد

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#### المستخلص

ورم حميد متعدد الاشكال ويسمى ايضا بالورم المختلط وهو اكثر انواع الاورام التي تصيب الغدد اللعابية ويصيب بنسبة عالية الغدة النكفية 90% وبنسبة 10% الغدد اللعابية الصغيرة المنتشرة في معظم اجزاء الفم وخاصة الغدد اللعابية في سقف الفم ومن ثم الشفة العليا وداخل الخد وبنسب قليلة يمكن ان يحدث في اللسان، اللوزتين، البلعوم والانف. في هذا البحث ورم حميد متعدد الاشكال لمريضة بعمر 36 سنة في الغدد اللعابية الصغيرة في الجهة الداخلية للخد الايمن مسببا ثقب الانسجة الرخوة للخد وخروج الورم الى داخل الفم ادى الى تداخلا مع وظيفة الاسنان العلوية والسفلية في الجهة اليمنى من الفم (حالة نادرة). لقد تم تشخيص المرض بالفحص النسيجي الكامل بعد ازالة تحت التخدير العام ولم يسجل حدوث هذا الورم في نفس المكان ثانية بعد متابعة حالة المريضة بزيارات دورية منتظمة بعد اجراء العملية.

#### Abstract

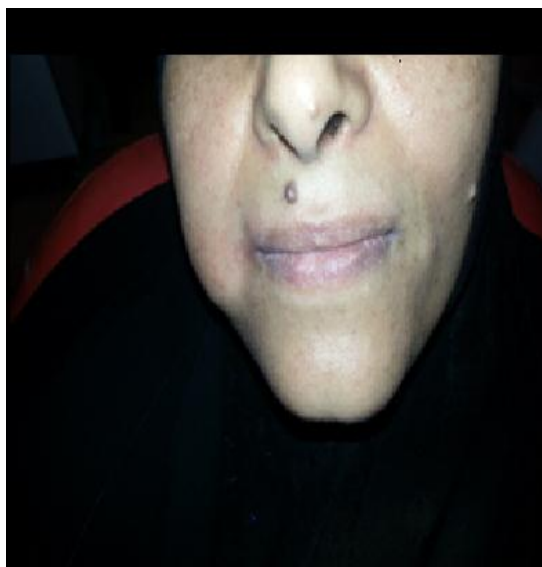
Pleomorphic adenoma, also called benign mixed tumor, is the most common tumor of the salivary glands. About 90% of these tumors occur in the parotid gland and 10% of them occur in the minor salivary glands. The most common sites for pleomorphic adenoma of the minor salivary glands are the palate, followed by the lips and the cheeks without any ulceration or perforation of the mucosa. Other rare sites include the floor of the mouth, tongue, tonsil, pharynx, the retromolar area and the nasal cavity. Here, we are reporting a case of pleomorphic adenoma of the minor salivary glands of the cheek in a 36-year old woman perforate the cheek mucosa. The mass was removed by wide local excision. There were no recurrences after a follow-up period.

#### Introduction

Pleomorphic adenomas are benign salivary gland tumors that represent about 3-10% of the neoplasms of the head and neck region (1). The palate is considered as the most common intraoral site (42.8-68.8%), followed by the upper lip (10.1%) and Cheek (5.5%) (2). Other rare sites include the throat (2.5%), retromolar region (0.7%), floor of the mouth and the alveolar mucosa (2). Pleomorphic adenoma usually presents as a mobile, slowly growing, painless, firm swelling that does not cause ulceration of the overlying mucosa (3). Pleomorphic adenoma consists of cells with epithelial and mesenchymal differentiation (mixed tumor). The highly variable morphology of this

neoplasm is the result of interplay between these elements. Now it is widely accepted that both epithelial and mesenchymal (myxoid, hyaline, chondroid, osseous) elements often arise from same cell clone, which may be a myoepithelial or ductal reserve cells. There is no difference in behavior of this neoplasm based on proportion of various elements (4). The mucosa of the cheek is a uncommon site of occurrence for intraoral pleomorphic adenoma (5).

Here we report a case of pleomorphic adenoma in 36 years old girl perforate the mucosa. The relevant studies were discussed.



**Figure 1: The tumor from out side**



**Figure 2: The tumor from inside**

## Case report

A 36-year old, diabetic woman, come to oral and maxillofacial department in AL-Zahra Teaching Hospital, Wasit, Iraq, suffering from extra oral a symmetry and intra oral growth in the right cheek area. Clinical examination: reveled extra oral swelling Presented with 4 years duration of a slowly growing, painless, rubbery mass about 3cm x3cmx4cm in the right cheek (figure 1).The skin over the region was not fixed to underling structure and freely movable in all planes, .Intra oral examination presented with intra oral exfoliated rubbery mass, lobulated, painless, pink in color 3cmx2cm. Perforate the cheek mucosa (figure-2), no history of trauma, fever, disturbance of salivation, or oral surgeries also no lymph node enlargement. The Radiological examination (MRI) reveal 3cm x3cm mass in the right cheek with extension 3cm x2cm intra orally, no abnormality in the panoramic radiograph.

The mass was dissected and total mass excised under general anesthesia through intra oral approach and the wound was closed in layers, it did not involve the facial muscles or subcutaneous tissue of the cheek. The lesion was in form of a lobulated well demarcated, partially encapsulated, gray-pink partly myxoid, partly rubbery

mass, measuring 6×3×2 cm[figure-3].On histopathology by fine needle aspiration cytology revealed features of pleomorphic adenoma which were confirmed on histopathological examination ,it appears that neoplastic proliferation has biphasic populations of epithelial and mesenchymal cells. The former was composed of glandular structures lined by round, oval cells which have large hyperchromatic nuclei, pink cytoplasm and myoepithelial basal cell layer. The stroma was myxoid, hyaline and chondroid.



**Figure 3: Excisional biopsy, the tumor measuring about 6x3x2 cm**

## Discussion

Pleomorphic adenoma is the commonest benign tumor 40% originating from the mature salivary tissue ,occurs more frequently in women than in men and is most common from the fourth to sixth decades with a mean age of 43-46 years (6).Salivary gland pleomorphic adenoma mainly occurs in the major salivary gland and if affect the minor salivary gland it occurs mostly in the palate and rarely in the lip and cheek ,its not ulcer or perforate the mucosa (5) Most of the salivary gland tumors although may have a great potential to change into malignancy(7)The incidence of malignant Transformation of a preexisting pleomorphic adenoma increases progressively with the preoperative duration of the tumor. In the series studied by Eneroth and Zetterberg (1), the rate of malignant transformation was 1.6% in tumors present for less than five years and 9.4% in tumors present for greater than 15 years (8).A very rare variant, called metastasizing.

Pleomorphic adenoma, is histologically benign, but in explicably present with distant metastasis (8) ,here we report rare case 36 years old woman with pleomorphic adenoma perforate the mucosal check and exfoliate intra orally .

The differential diagnosis of pleomorphic adenoma of the cheek includes buccal space abscess, dermoid cyst, foreign body reaction, fibroma, lipoma, neurofibroma, rhabdomyosarcoma, mucoepidermoid carcinoma, adenoid cystic carcinoma, polymorphous low-grade adenocarcinoma and carcinoma expleomorphic adenoma (6). The possibility of buccal space abscess was ruled out due to absence of sign of inflammation and presence of growth projected intra orally. The solid nature of the lesion coupled with the lack of tissue representing the three germ layers rule out the

possibility of dermoid cyst. The lack of pain, paresthesia or invasion of the surrounding tissue rules out the possibility of malignant transformation. Carcinoma ex pleomorphic adenoma is characterized by the presence of malignant epithelium (salivary duct carcinoma, undifferentiated carcinoma, adenocarcinoma not otherwise specified, terminal duct carcinoma or myoepithelial carcinoma) with benign stroma (9). Carcinoma ex pleomorphic adenoma is extensively infiltrative malignancy with necrosis, perineurial invasion, frequent mitotic figures, marked nuclear atypia.

The elective treatment of a pleomorphic adenoma is surgery. There are numerous surgical approaches indicating the difficulty of access, accentuated by the Communications with the neighboring regions. Inadequate resection or rupture of the capsule or tumors spillage during excision can lead to local recurrence as these tumors often have microscopic interruptions in the capsule (6)

The prognosis of a pleomorphic adenoma is good. The patient is remaining disease free after surgical excision and is on a regular follow-up

## Conclusion

To conclude, pleomorphic adenoma of the cheek is a rare neoplasm normally Its not perforate or ulcerate overlying mucosa or skin and therefore its diagnosis requires a high index of suspicion. Complete wide surgical excision is the treatment of choice. Recurrence after many years of surgical excision as well as malignant transformation should be a concern and therefore long- term follow- up is necessary.

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