CASE REPORT

An ulcerated giant pleomorphic adenoma of the parotid gland – A case report

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Abstract

Pleomorphic adenoma (PA) is the most common salivary gland tumour. It accounts for a majority of parotid gland tumour. Neglected and untreated PAs can grow in size and weigh several kilograms. Complete resection of the tumour and preservation of the facial nerve are the main principles of surgery. Giant PA of the parotid gland is reported as a rarity in medical literature. We report a rare giant PA with ulceration over the mass in a 92 year old man on the right side of the face. Patient had undergone superficial parotidectomy with good cosmetic outcome. The excised specimen was 20 cm x 15 cm x 12 cm in dimension and 3.8 kg in weight. Even an ulcerated, malignant transformation was not seen in the tumour.

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1. Introduction

Neoplasms of salivary gland are relatively rare, comprising less than 3% of all tumours of head and neck region. Pleomorphic adenoma (PA) is the most common variant of salivary gland tumour, affecting 60–80% of the benign neoplasms of salivary glands and constitute 60–70% of all neoplasms of parotid gland. PA is more common in right side than left side and more common among females than males (2:1). Untreated PA may grow in size to several centimetres and several kilograms in weight. Often giant PA of the parotid gland forms a single but irregular, nodular and painless mass which stretches the overlying skin. Some of these long standing tumours may show malignant transformation. Usually malignant changes can be suspected by a sudden increase in the size of the tumour and local features of malignancy like pain, ulceration, spontaneous bleeding and deep tissue invasion. Although uncommon, few cases of giant PA have been described in the parotid glands. The giant size of the tumour is usually seen because of the negligence by the patient or fear of surgery. There are very few cases of giant PA of the parotid reported in the medical literature. The first case of giant PA was reported in the medical literature by Spence in 1863.

Whenever possible, early excision of the tumour is ideal despite the relatively low risk of malignant transformation. Here, we
present a case of 92 year old male who present with a huge size mass in parotid with ulcerative changes over it and histopathological examination proved to be a benign PA of the parotid gland.

2. Case report

A 92 year old male came to outpatient department of Otorhinolaryngology for a large growth on the right side of the face (Fig. 1). The painless swelling had gradually increased in size over a period of more than 25 years. The parotid mass measured 20 cm × 15 cm in dimensions and got ulcerated since 6 months. The patient was asymptomatic and not consulted any physicians all these years because of his low socioeconomic status and being neglected by his family members. On examination it was multi-nodular swelling, firm in consistency and mobile without fixity to the adjacent structures. Despite the large size of the mass, there was no sign of facial nerve paralysis. He had no cervical lymphadenopathy. Skin over the mass was showing ulceration due to repeated trauma during sleeping posture as per patient’s saying. Fine needle aspiration cytology (FNAC) performed, showed myoepithelial cells, ductal cells and chondromyxoid matrix suggestive with PA. Computed tomography (CT) scan was done to evaluate the extent of the mass (Fig. 2). The mass was attached to the superficial lobe of the parotid gland. The patient underwent superficial parotidectomy with preservation of facial nerve under general anesthesia. Despite the giant size of the parotid mass, a clear plane of dissection was found. The patient achieved excellent cosmetic and functional outcome, without damage or recurrence and no facial nerve palsy. The postoperative period was uneventful.

On histopathological analysis and immunohistochemistry, the lesion was identified as a PA with negative for malignant changes. Multiple sections of the tumour mass studied, showing tumour cells are arranged in biphasic pattern consisting of epithelial components and stromal components. Histopathological picture was showing predominately myoepithelial cells myxohyaline and chondroid stroma with frequent ductal differentiation (Fig. 3). No nuclear atypia and atypical mitosis are seen in histopathology.

3. Discussion

PA is the most common type of salivary gland tumour. Common site of occurrence of PA is the parotid gland, affecting patients of any age group, but most frequently between the fifth and sixth decades of life. PA typically present in the lower pole and superficial lobe of the parotid gland. Approximately 10% of all parotid PA are thought to arise from deep lobe of the parotid gland. The weight of the PA can range from several grams to more than 8 kg and the weight appears to increase the duration of the tumour. Our case is an unusual giant PA arising in the right parotid gland of 3.8 kg with surface ulceration.

Although PA is an essentially a benign tumour, aggressive behaviour of tumour may suspect a malignant transformation. The incidence of malignant transformation often shows a correlation between the length of the history of PA and development of malignancy. The classical history of carcinoma ex-pleomorphic adenoma is slow growing mass for several years and with a recent fast growth phase. Malignant changes may occur in PA which includes three pathological entities: carcinoma in PA, carcinosarcoma and benign metastasising PA. The incidence of malignant transformation in PA ranges from 2% to 7%. The chances of malignant transformation increases in cases of long standing evolution of tumour, advanced ages of the patient, recurrences and location in major salivary gland. Sudden change in growth rate of PA and local signs of malignancy including pain, ulceration, bleeding and superficial and deep tissue invasion are in favour of malignant transformation in PA. Our patient did not have any features of malignant transformation except ulceration and histopathological picture revealed no evidence malignant changes in tumour and in ulcerated region. In our case, the ulceration over the tumour was due to repeated trauma.
particularly during sleeping posture of the patient. Some documented the risk of malignant transformation increases from 1.6% in tumours with less than 5 years of evolution, to 9.5% of those presenting more than 15 years. The classical clinical evidence of carcinoma ex-pleomorphic adenoma is a slow growing mass for several years with a recent fast growth phase. Our patient was of very old age and ulcerated giant mass, however histopathology showed no evidence of malignant transformation.

Diagnostic options in this case are imaging modalities and histopathological examinations such as fine needle aspiration cytology (FNAC) or incisional biopsy are useful tools in addition to clinical pictures. FNAC is a reliable procedure that can guide the surgeon, even though it would not be the first choice diagnostic tool. Often FNAC helps to choose the right surgical approach before surgery. High resolution ultrasound is helpful for guiding the fine-needle aspiration for cytological diagnosis. Open neck biopsies should be avoided, since opening the tumour capsule increases the chance of recurrence. Preferably computed tomography (CT) scan, magnetic resonance imaging (MRI) are useful to detect malignant transformation, tumour invasion to deeper structures as it is superior sensitivity on soft tissue. Here we have done CT scan as it gives details of mass lesions including nature of the mass, deep lobe invasion and lymphatic extension. Before surgery we had done FNAC. After surgery, all areas of the surgical specimen were microscopically analysed and none showed any evidence of malignant changes.

Histologically it consists of both epithelial and mesenchymal elements. In our case, histopathological picture showed islands of epithelial cells arranged in myxochondroid stroma with ductal differentiation which are characteristics of PA. Although it is accepted that the majority of giant PA remain non-malignant as happened in our case, early excision is desirable.

4. Conclusion

We present this case of an unusually giant size of the parotid mass with ulceration over it and did not show any malignant changes, without facial nerve involvement and no cervical lymphadenopathy. As this giant PA of the parotid is often a neglected clinical condition, early diagnosis and treatment are crucial. Untreated PA can enlarge progressively up to several kilograms in weight over years. Some may go for malignant transformation. Therefore, early diagnosis and excision of such giant tumours are essential. Superficial parotidectomy gives excellent results if PA is confined to only to superficial lobe of the parotid.

Conflict of interest

None declared.

References


