Case Report

JRAD Journal of Research and Advancement in Dentistry

J Res Adv Dent 2017;6:1s:30-32.

Report of Pleomorphic Adenoma of the Parotid Gland

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ABSTRACT

Background: Salivary gland tumours are rare and include a wide spectrum of benign and malignant tumours. Pleomorphic adenoma is the most common salivary gland tumour. It is benign tumour an often involves the parotid gland. Wide surgical excision is the treatment of choice to prevent recurrences. Here we report a case of pleomorphic adenoma of the left parotid gland in a 58-year old male who complained of swelling on the left side of his face below the ear.

Keywords: Pleomarphic adenoma, Parotid gland.

INTRODUCTION

Salivary gland tumours are rare, comprising less than 3% of head and neck tumours (1). There is a spectrum of benign salivary adenomas, including pleomorphic adenoma, benign myoepithelioma, basal cell adenoma and canalicular adenoma (2). Pleomorphic adenoma is the most common tumour of the salivary glands (1,2). Pleomorphic adenomas are most common in the parotid glands, constituting upto 85%, followed by minor salivary glands, upto 10%, and 5% of the tumours occur in the submandibular glands (3). These tumours are very rare in the sublingual gland (4). In the parotid gland, most pleomorphic adenomas arise within the superficial lobe, from either the tail (50%) or the anterior region (25%). The remaining 25% arise from the deep lobe and may presents pharyngeal mass (5). Minor salivary gland tumoursusually occur in the palate, followed by lip, cheek, tongue and floor of mouth (3).

Pleomorphic adenomas manifest usually as slow-growing, asymptomatic swellings of the parotid gland. Facial nerve involvement is seldom encountered (6). They are best treated by wide surgical excision with good safety margins and a follow-up of 3-4 years (7).

CASE REPORT

A 58-year old male has reported with the chief complaint of slow-growing, painless mass on the left side of his face below the ear, since 7 years. The swelling was initially small in size and has progressively increased to the present size. Past medical history was non-contributory. Extra-oral clinical examination revealed well-defined, ovoid swelling which wasmulti-lobular and measures 7.5 cm x 10 cm in diameter. The lesion produced an obvious facial asymmetry. Superior-inferiorly the swelling extended from the left zygomatic arch to 1cm below the lower border of the body of mandible. Anterior border was 4cms posterior to the corner of the mouth and posteriorly it extended till the posterior border of the mandible. Ear lobe elevation was also observed (figure1). The tumour was firm and non-tender. There were no symptoms suggestive of facial nerve involvement.

MRI revealed a large well-defined, lobulated heterogeneous lesion (figure 2). FNAC

Received: Sept. 17, 2016: **Accepted:** Nov. 8, 2016
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pISSN 2278-0076
eISSN 2321-9270

Fig 1: Ear lobe elevation seen.

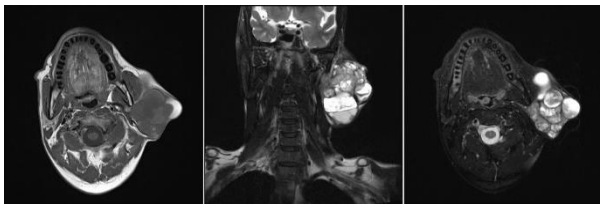

Fig 2: large well-defined, lobulated heterogeneous lesion.

showed admixed epithelial, myoepithelial and mesenchymal tissue elements and showed no malignant cells. Preoperative provisional diagnosis of pleomorphic adenoma was given. After taking informed consent from the patient, superficial parotidectomy was performed, preserving the facial nerve. Post-surgical evaluation revealed no symptoms of facial nerve injury. Excised mass was sent for histopathologic evaluation, which revealed epithelial cells arranged in cords, ducts and glandular pattern in a myxomatous stroma. Duct-like units comprised both luminal and non-luminal cells, suggestive of ductal and myoepithelial cells. Some areas of chondroid were also evident along with areas of hyalinization. The characteristic features of chondromyxoid stroma and glanduloductal differentiation of the epithelial cells, confirmed the diagnosis of pleomorphic adenoma involving the left parotid gland.

DISCUSSION

WHO defined pleomorphic adenoma as a well-defined tumour characterized by its pleomorphic or mixed appearance. There is intermixing of the clearly recognizable epithelial component with mucoid, myxoid and chondroid component (8). Pleomorphic adenoma is the most common salivary gland tumour. The common site of occurrence is the parotid gland, affecting patients of any age, most frequently between fourth and sixth decades of life (9).

Usually they present as solitary, unilateral, firm and mobile, slow-growing asymptomatic mass. Signs and symptoms depend on the location. Tumours of parotid gland present as extra-oral painless swelling and signs of facial nerve weakness are rarely seen. In large neglected tumours, facial nerve weakness likely represents a malignant transformation. Another feature suggestive of malignant change is rapid enlargement of a tumour nodule (1). The clinical features of the present case correlated well with the published literature and no features suggestive of malignant change were observed clinically. And with the added information from the MRI, a clinical diagnosis of pleomorphic adenoma was given. FNAC report also favoured the clinical diagnosis of benign pleomorphic adenoma.

Pleomorphic adenoma shows wide cytomorphologic and architectural diversity, for which it is named so. The tumour has 3 components: an epithelial, a myoepithelial and a stromal/ mesenchymal component. Identification of these three components is essential for the diagnosis of pleomorphic adenoma. Epithelium is usually arranged in sheets or stands and as ducts or glands. The myoepithelial cells are often polygonal with pale eosinophilic cytoplasm. Presence of these cells is helpful in diagnosis, especially in cases of small biopsy specimens (10). The present case showed histopathologic features clearly suggestive of pleomorphic adenoma.

The most commonly used surgical procedure for excision of a superficial lobe benign parotid tumour is superficial parotidectomy. Advanced imaging modality can be used to determine the exact location and the tumor extent, which helps in performing complete resection thereby ensuring a favourable outcome (11). Other surgical techniques, such as enucleation, are associated with high tumourrecurrence rates (1,11). Small nodular protrusions, referred to as pseudopodia, extending from the tumour surface or tumour spillage and seeding at the time of surgery are presumably responsible for tumour recurrences

(12). In the present case MRI was also used as a aid in determining the exact location and superficial parotidectomy was performed to minimize the chances of recurrence. Facial nerve was also preserved.

Hence proper diagnosis and correct surgical procedures followed for the resection of the tumour along with facial nerve preservation improve the prognosis of the patient as well as decrease the chances of recurrence.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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