

The world's biggest benign Parotid Tumour 'pleomorphic adenoma': a rare case report

Dr H Nagaraj¹, Dr R N Raikar², Dr Rajalakshmi³, Dr Arshiya Taj⁴,
Dr Asha M N⁵, Dr Aneeta Mutgi⁶, Dr. Sujith MS⁷

Associate professor, Department of General Surgery, SIMS, Karnataka, India¹

Assistant professor, Department of General Surgery, SIMS, Karnataka, India²

Assistant professor, Department of General Surgery, SIMS, Karnataka, India³

House surgeon SIMS, Karnataka, India⁴

House surgeon, SIMS, Karnataka, India⁵

House surgeon, SIMS, Karnataka, India⁶

Abstract : The parotid gland is the largest of the salivary glands weighing 15 grams and Pleomorphic adenoma (mixed salivary tumour) is the most common benign salivary gland tumour and also the most common benign tumour of the parotid. Normally this tumour is a slow growing well demarcated apparently encapsulated lesion rarely exceeding 6cms in its greatest dimension. However the below mentioned case is an exception wherein the tumour measures 24x18x11 cms in dimension. Thereby making it the world's largest benign parotid tumour recorded till date.

Keywords : Benign mixed tumor, parotid gland, parotidectomy, pleomorphic adenoma, largest parotid tumour.

I. Introduction

Salivary gland neoplasms are rare comprising 1- 4 %⁷ of all neoplasms and 3 – 5 %^{8,9} of all head and neck neoplasm out of which Pleomorphic adenomas are benign salivary gland tumors which represent about 80% of the salivary gland tumours, most commonly occurring in the parotid gland. It is a mixed salivary tumour of mesenchymal, myoepithelial and duct reserve cell origin. It is a slow growing, well demarcated and encapsulated tumour may extend beyond the main limit of tumour tissue as pseudopods. It presents as an unilateral slow growing painless mobile swelling in the parotid region, rarely exceeding 6cms in its greatest dimension. It may undergo malignant transformation to carcinoma ex pleomorphic adenoma where there is involvement of facial nerve. The standard surgery done for benign tumour is superficial parotidectomy with adequate resection of the margins and care is taken in preserving the facial nerve.

II. CASE REPORT

A 75yr old female came to the surgical OPD of SIMS and RC (Shimoga), with complaints of painless swelling in the left side of the face since 20yrs. The swelling was insidious in onset, and has gradually progressed over the span of 20 yrs to the present size of about 24x18x11cms. She developed an ulcer over the posterior and lateral aspect of the swelling 2 weeks back which is associated with serous discharge and maggots. There is no history of fever, sudden increase in size of the swelling, abnormal swelling in any other part of the body, or loss of weight. No h/o any chronic illness like hypertension, diabetes or asthma. She is a chronic alcoholic n h/o tobacco chewing is present. Her general condition was fair and vitals were stable.

On examination there was a swelling on the left side of the face, irregular in shape extending vertically from left tragus to the middle 1/3rd of the neck and horizontally from 6 cm away from left angle of mouth to the post auricular region till the hairline (for about 3cm). The swelling measures about 18.1cm antero-posteriorly, 10.6 cm transversely and 23.6cm obliquely. The surface of the swelling appears nodular. Edges are clearly defined. Skin over the swelling is stretched and shiny. With 2 ulcers one over the posterior measuring 5x7cm n laterally 6x8cm with serosanguinous discharge, edge of the ulcers are indurated and there was no bleeding on touch. On palpation there was no tenderness, swelling was mobile n skin over the swelling was pinchable and there were no signs of regional lymphadenopathy or signs of facial nerve palsy.

All blood investigations are within normal limits, CT scan shows Large left parotid mass with calcification and extensive necrosis – probably benign tumor. N FNAC report shows it to be benign tumour of parotid gland : pleomorphic adenoma. (FNAC reports in fig 6)

After thorough workup of the case and pre anaesthetic examination it was taken for surgery on 21/12/2013. Under general anaesthesia wide excision was done, facial nerve was preserved. Intra operative and post operative period was uneventful. Patient was discharged after 12 days. The excised tumour measured 24cm in lengthx18cm in widthx11cm in height and weighed 1970gms. which is the world's biggest benign parotid gland tumour recorded till date.

III. Figures

Fig 1 – 5 show CT scan view of pleomorphic adenoma.

Fig 7 – 9 show pre operative photographs

Fig 10 show intra operative photograph

Fig 11 shows gross specimen

Fig 12 – 14 show post operative photographs



Fig. 1

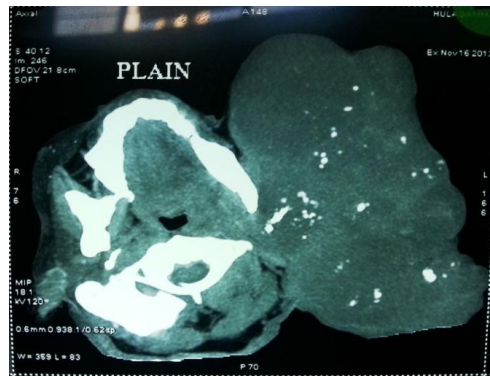


Fig 2

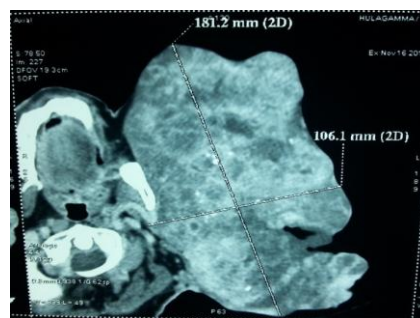


Fig 3



Fig 4



Fig 5

SHIMOGA INSTITUTE OF MEDICAL SCIENCES
 DISTRICT M.G. GANN HOSPITAL, SHIMOGA
 (Autonomous Medical Institution, Government of Karnataka)
 Ph. : 08182-229933, 229963, Fax : 08182-264100

DEPARTMENT OF PATHOLOGY
FNAC / CYTOLOGY REPORT FORM

Name: HULAGAMMA Age: 75yr Sex: F CCL No. _____
 Ref. By Dr. NAGAN OP/IP No. 20131152114 Unit/Ward SHS 9 C
 F/CY No. F.620/13 Date of Report 27/11/13

Anatomical Site : @ parotid swelling.

Clinical Diagnosis : ? Parotid tumor
(bedside FNAC)

Microscopy : multiple aspirates yielded clear sticky mucoid material.
smears are highly cellular composed of ductal epithelial cells, myoepithelial cells arranged in cohesive clusters, sheets & few acinar pattern along with abundant chondromyxoid stromal fragments. there is blending of myoepithelial cells in the stromal matrix. the myoepithelial cells & plasma cytoid epithelial cells are seen scattered in mucoid background. Also seen are few metaplastic cells.

Impression: Features are suggestive of PLEOMORPHIC ADENOMA
 suggested HPE for confirmation.
 Note: In view of very large size of tumor the possibility of malignant change can not be ruled out from unampled area.
 Pathologist

Fig 6 FNAC report of the swelling



Fig 7



Fig 8



Fig 9



Fig 10

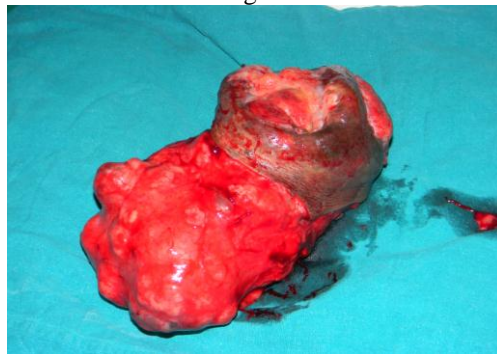


Fig 11



Fig 12



Fig 13

IV. DISCUSSION

Pleomorphic adenoma is the most common minor salivary gland tumor^{10, 11, 14-16}, with incidence ranging from 33% to 70% of all tumors^{10, 11, 14-16} & from 70.6%¹² to 100%^{11,13,17}, of all benign tumors. Most studies have shown those minor salivary gland tumors are more common in females than male^{11, 22,17}. The tendency for female predominance has been reported to be especially marked in benign tumors, with male to female ratio of ranging from 1:1.8¹⁷ to 1:2.4¹⁸. Pleomorphic adenoma is most common from 4-6 th decade with mean age of 43-46 yr^{13,14}. It is a mixed salivary tumour of mesenchymal, myoepithelial and duct reserve cell origin. It is a slow growing, well demarcated and encapsulated tumour may extend beyond the main limit of tumour tissue as pseudopods. It presents as an unilateral slow growing painless mobile swelling in the parotid region.

Pleomorphic adenoma has a tendency for local recurrence & some cases undergo malignant transformation. Treatment of choice for pleomorphic adenoma in minor salivary glands is wide local excision with removal of periosteum or bone if involved. Simple enucleation is believed to lead to a high local recurrence rate & should be avoided.

V. Conclusion

Our above case report shows us that pleomorphic adenoma can occur as massive as the size of 23.6x18.1x10.6 cm and still be benign tumour even over the huge span of 20 years.

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