



**ORIGINAL RESEARCH PAPER**

**Otorhinolaryngology**

**CALCIFIED DEEP LOBE OF PAROTID GLAND : A RARE CASE REPORT**

**KEY WORDS:** Parotid gland, calcified deep lobe, Benign salivary gland neoplasms

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**ABSTRACT**

Salivary gland neoplasms are uncommon , they make upto 6% of all head and neck tumours.(1)Benign salivary gland tumours are said to be more common than malignant ones, between 54% and 79% of all salivary gland tumours are benign and 21-46% are malignant. (2)Calcifications inside salivary gland tumours are even more sparse despite the fact that calcification is a common finding in inflammatory salivary gland disorders. The 19 year old male patient with gradually progressive swelling in the parotid region on the right side. Basic investigation, FNAC, radiological imaging was carried out and differential diagnosis was given as intra parotid lymph node or neoplastic lesion arising out of the mandible. Patient had undergone surgery in our department. Post operative biopsy revealed calcified deep lobe of parotid.

**INTRODUCTION:**

The parotid gland is the largest of all major salivary glands. In adults the gland is entirely serous in secretions , situated in the space between the posterior border of mandibular ramus and mastoid process of temporal bone. The external acoustic meatus and glenoid fossa lie above , together with the zygomatic process of process of the temporal bone.

On its deep (medial) aspect lies the styloid process of the temporal bone. Inferiorly the parotid frequently overlaps the angle of the mandible and it's deep surface overlies the transverse process of the Atlas vertebrae. The shape of the parotid gland is variable, often its pyramidal in shape with upto 5 processes. However, on occasion it is more or less of equal width and occasionally triangular with apex superiorly. In 20% of subjects a smaller accessory lobe arises from the upper border of parotid duct approximately 6mm in front of main gland. This accessory lobe overlies the Zygomatic arch.<sup>(3)</sup>

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**Case Report :**

Clinical history :

A 19 year old male patient presented with swelling on right side of the face under the ear lobule since 8 months, insidious in onset and gradually progressing from pea sized to the size of lemon.

**Examination:**

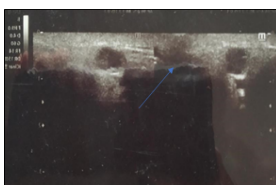
Mass of approximately 4 cm × 3cm located in the right parotid region, which was firm in consistency, not adherent to skin, mobile with no tenderness or local rise of temperature.

There was no restriction of neck movement or mouth opening due to the mass.

Neurological examination was within normal limits.

**INVESTIGATION**

Usg of the Right parotid gland showed approximately 9mm well defined hypoechoic lesion in the superficial lobe suggesting intra glandular lymph node with a differential diagnosis of pleomorphic adenoma.



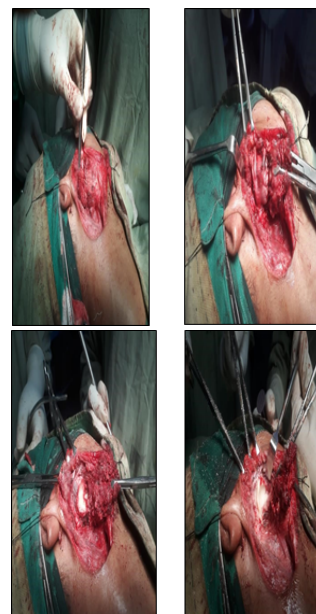
FNAC ( Usg guided) from Right parotid region revealed mature lymphoid cell along with occasional salivary acini in an haemorrhagic background.

CT scan of the neck showed a 19x14 mm lobulated sclerotic pedunculated space occupying lesion noted arising from Right ramus of mandible



The lesion is involving the entire cortex and showing very minimal intramedullary extension. The lesion is well corticated and showing no obvious infiltration.

The patient underwent surgery ( total conservative parotidectomy) and the tissue sample was sent for histopathological examination.



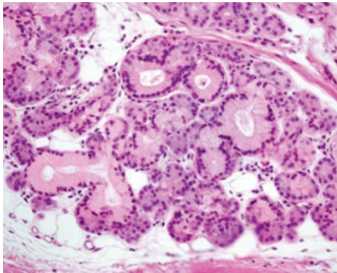
Intraoperative pictures showing facial nerve along with the calcified deep lobe of parotid gland.

No facial nerve palsy was noted post operatively.



(Post operative photograph showing incision given)

Pathological study of the extracted mass which had multiple fragments of bony and soft tissue measuring altogether 3×1.5 cm. Soft tissue showed fibroadipose tissue containing small lymph node tissue with hyperplastic changes. Bony tissue post decalcification showed masses of salivary gland tissue intercepted by fibrocollagenous band.



slide seen under microscope (40x) after decalcification. Stained using eosin and Hematoxylin staining.

#### DISCUSSION

In this case of calcified deep lobe of we found a rare entity based on the histopathological examination showing calcification of the parotid tissue intercepted by fibrocollagenous bands and fibroadipose tissue.

In our case, CT scans showed a large lobulated bone-attenuation mass with a scanty soft-tissue component. The bone attenuation mass in CT scans has been attributed to calcification in the gland. The sporadic low attenuation areas were considered to be epithelial components.

As such cases are a rare occurrence we are unable to cite significant previous literature about the same.

#### REFERENCES

1. Stenner M, Klusmann JP (2009) Current update on established and novel biomarkers in salivary gland carcinoma pathology and the molecular pathways involved. *Eur Arch Otorhinolaryngol* 266, 333-341.
2. Rousseau A, Badoual C (2011) Head and neck: Salivary gland tumors: an overview. *Atlas Genet Cytogenet Oncol Haematol* 15, 533-541
3. Carlson ER, Ord RA. Textbook and color atlas of salivary gland pathology. Diagnosis and management. USA: Wiley-Blackwell; 2008. pp. 19e67.