

## **Parotid Gland Oncocytoma: A Case Report**

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### **I. Introduction**

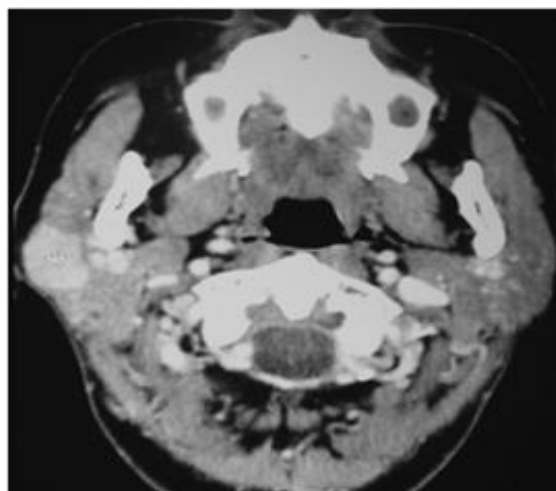
- Oncocytic neoplasms comprise a group of rare tumors of the parotid glands
- Their incidence represents approximately 1% of parotid neoplasms.
- Histologically they are classified according to the new World Health Organization (WHO) classification in three distinct types, namely
  - ▶ oncocytosis,
  - ▶ oncocytoma and
  - ▶ oncocytic carcinoma.
- We herein describe the rare case of a 37-year old male patient with right side benign parotid oncocytoma.

### **Case History**

- A 37-year old male patient presented to our department with swelling in right parotid region for around 10 years.
- According to the patient the swelling was gradual in onset progressive in nature.
- Initially the swelling was of size 1X1 cm than gradually progressed to the present size.
- There are no aggravating or relieving factors of swelling.
- It is not associated with any pain ,discharge or difficulty in chewing.
- **On physical examination,**
  - The mass was Solitary globular of size 7 X 5 cm was present at angle of mandible right side,
  - It was non tender and mobile,
  - The overlying skin was not involved.
  - There were no facial palsy, xerophthalmia and/or xerostomia (Sicca syndrome).

### **II. Investigation**

- Computed tomography (CT) of the neck with right parotid region revealed anwell defined oval shaped mass in right parotid gland (6X4cm).
- A biopsy with fine needle aspiration was reported as ?Sialometaplasia with no evidence of malignant cells.
- CT-NECK WITH PAROTID REGION.



**Surgery**

- The patient underwent Right Superficial Parotidectomy and Resected specimen was sent for histopathological examination.
- Post operative period was uneventful.
- Follow-up period was 11 months & patient remains disease free.

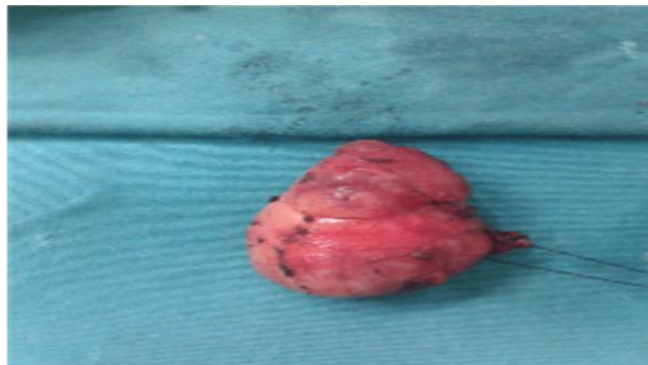
**III. Intra- operative findings**



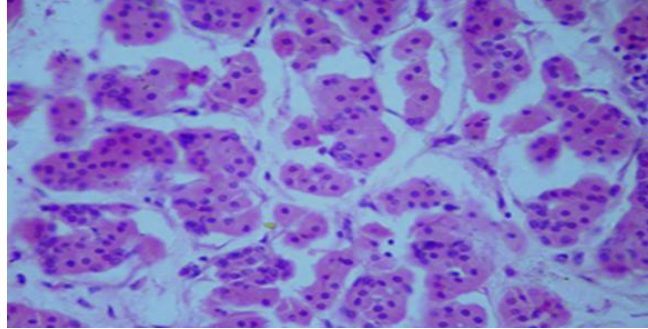
- Well encapsulated mass of size of about 6 X 5 CM & oval shaped found.
- Non adherent to underlying structure.
- A facial nerve was identified & preserved.

**Histologic examination**

- Gross.



- Microscopic.



- Showed closely packed nests and lobules of oncocytic cells.
- Showing centrally placed round nuclei with clumped chromatin and abundant granular eosinophilic well defined cytoplasm.
- These findings were suggestive of BENIGN PAROTID GLAND TUMOR ONCOCYTOMA

#### IV. Discussion

- Oncocytomas usually occurs in the elderly and affect the parotid glands in 80%.
- Bilateral oncocytoma is reported to be extremely rare, accounting for 7% of these cases.
- Diagnosis is assisted by CT and/or magnetic resonance imaging (MRI) of the neck, although histopathologic confirmation is necessary.
- Pathologically, oncocytoma is described as a well circumscribed mass, composed of layers of oncocytes:
  - small round nucleus, micro-granular, & eosinophilic cytoplasm.
- Fine needle aspiration is the procedure of choice for making a diagnosis in the majority of cases, although its sensitivity is reported to be only 29% .
- Rarity of the disease, sampling error and lack of interpreter experience account for the majority of pitfalls.
- Pathogenesis is quite obscure, although mitochondrial functional defects are believed to mediate the progressive degeneration of the salivary epithelial cells.
- Of note, only one mitochondrial DNA rearrangement (among 200 described) has been linked to parotid tumor genesis.
- The correlation of certain viruses, such as EBV, HIV, HHV-8, HTLV-1 and HPV with parotid neoplasias has been documented.
- However, there is no evidence for a possible link between HBV and these neoplasias.
- Surgical management with radical or superficial parotidectomy represents the cornerstone of therapy.
- Probably, there is no need for chemotherapy and/or irradiation, given the benign nature and slow growthrate of the tumour; recurrence is less than 20%, mainly because of incomplete surgical resection.

#### V. Conclusion

- Oncocytic neoplasms should be considered as a possible diagnosis in patients with parotid enlargement.
- Due to the lack of large series, assiduous study of the cases reported in the literature may lead to better understanding of this rare disease.

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