



Oncocytoma of Parotid Gland

Dr. Vivek Baratam (Post Graduate), Dr. K. Ramasubramanian (Professor of General Surgery), Dr. K. Vivekananda Subramania Nathan (Professor of General Surgery), Dr. Aarthi. K (Professor of Pathology), Dr. D. Rajeswari Thivya (Associate professor of Pathology)
Chettinad Hospital & Research Institute - 20 May 2021

Submitted: 01-05-2021

Revised: 18-05-2021

Accepted: 22-05-2021

ABSTRACT: Parotid oncocytoma is a rare condition noted in less than 1% of salivary gland tumors and it is commonly misdiagnosed as hemangioma or pleomorphic adenoma. Only biopsy can confirm it. Hereby we discuss a case of 68-year male came with complaints of swelling in Left parotid region for 3 months

Keywords: Parotid, Fine Needle Aspiration Cytology

noticed a 2*3 cm insidiously occurred swelling in his left parotid region and gradually increased in size to attain a current size of 6*5cm over a duration of 3 months. Patient had history of pain over the swelling. Upon further examination, a 6*5cm hemispherical swelling present over left parotid region which was firm in consistency associated with tenderness over the swelling. No signs of facial nerve palsy noted.

I. INTRODUCTION

Salivary gland tumors are complex group of tumors. Oncocytoma is a very rare entity predominantly seen in older population after sixth decade, usually seen in women in seventh decade. Most common site of salivary gland tumor is parotid gland in around 80% of the cases. These parotid gland tumors are usually slow growing but the peculiarity of this case is that it's a relatively rapid growing one.

We present case of 68-year male came with complaints of swelling in left parotid region for 3 months with progressive increase in size and associated with pain over the swelling.

II. CASE REPORT

A 68-year-old male presented to General Surgery outpatient department with swelling over left mandibular region for 3 months. Patient

Ultrasonography of parotid gland showed iso to hetero echoic lesions in left parotid gland. Fine Needle Aspiration Cytology of left parotid showed single foci of chondromyxoid matrix suggestive of pleomorphic adenoma. Based on above radiological and pathological findings, a working diagnosis of pleomorphic adenoma of left parotid gland was made with differential diagnosis of hemangioma.

The patient was then taken up for Superficial Parotidectomy. Superficial Parotidectomy was done. Grossly, the specimen is a single nodular mass with attached encapsulated salivary gland tissue measuring 6.5*5.5*2 cm. Histopathological examination confirmed it to be Oncocytoma of parotid gland. Microscopically,

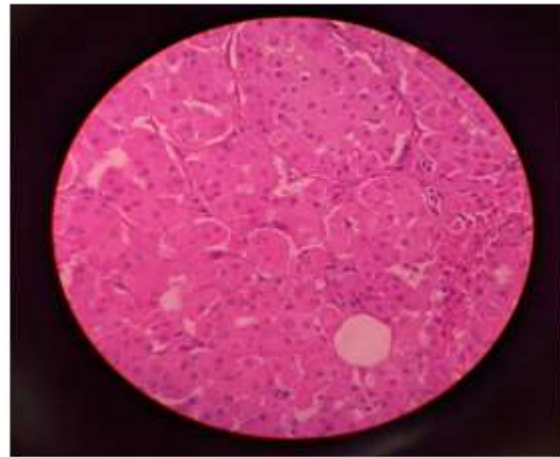
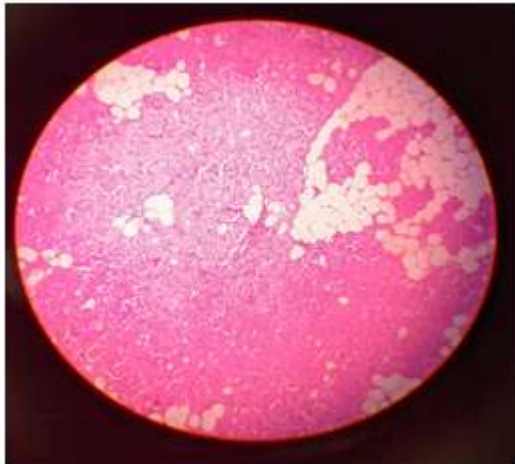


- Sections from encapsulated show a circumscribed encapsulated tumor composed of oncocytic epithelium arranged in sheets, trabeculae and glandular pattern.
- Cells showed minimal cytological atypia with ventrally placed vesicular nucleus,

inconspicuous nucleoli and abundant eosinophilic granular cytoplasm.

- The excretory ducts present in fibroconnective tissue shows squamous metaplasia, foreign body giant cell reaction and periductal lymphocytic infiltrates.





D. Circumscribed Tumor showing oncocytic epithelium E. 40x, Cells show minimal cytological atypia with usually placed vesicular nuclei and abundant granular eosinophilic cytoplasm. foci show adnexed adipose tissue and fibroconnective tissue

III. DISCUSSION

Oncocytes appear as cells with abundant eosinophilic cytoplasm, granular, with various sizes of mitochondria and central pyknotic nucleus. Oncocytes can be noticed in various tissues such as lacrimal glands, salivary glands, buccal mucosa, ocular carbuncle, oesophagus, parathyroid, thyroid, nasal cavity, pituitary, sinuses, larynx, eustachian tube, kidney, pancreas, and liver. Histologically, it is of three types – oncocytosis, oncocytoma and oncocytic carcinoma.

Oncocytoma is composed of oncocytes (eosinophilic cytoplasm, small round nucleus and micro-granular). In response to abnormal changes original specialization of normal cells will be lost and oncocytic cells as metaplastic cells formed. Compensatory hyperplasia and functional exhaustion of mitochondrial enzymes by ageing is responsible for oncocytic change.

Oncocytomas in relation to viruses, like human herpesvirus-8, HTLV-1, HIV, Epstein – Barr virus and human papillomavirus with neoplasia of parotid noted. Oncocytic metaplasia can be seen in a variety of salivary gland tumors such as pleomorphic adenomas, basal cell adenomas, cystadenomas, myoepitheliomas,

Warthin's tumor, canalicular adenoma, polymorphous low-grade adenocarcinoma, mucoepidermoid carcinoma and acinic cell carcinoma.

Most commonly primary screening for salivary gland tumors is FNAC, but salivary glands have overlap morphology so cytology alone becomes difficult for diagnosis. Surgical management of superficial or radical parotidectomy is marking therapy. Intraoperative and postoperative period was uneventful.

REFERENCES

- [1]. Palmer TJ, Gleeson MJ, Eveson JW, Cawson RA.
- [2]. Nagarkar NM, Bansal S, Dass A, Singhal SK, Mohan H. Salivary gland tumors – Our experience. *Indian J Otolaryngol Head Neck Surg* 2004;56:31- 4.
- [3]. Kontaxis A, Zanarotti U, Kainz J, Beham A. Diffuse hyperplastic oncocytosis of the parotid gland. *Laryngorhinootologie* 2004;83:185- 8.
- [4]. Capone RB, Ha PK, Westra WH, Pilkington TM, Sciubba JJ, Koch WM, et al. Oncocytic neoplasms of the parotid gland
- [5]. Diouf MS, Claros P, Claros A Oncocytoma of the parotid gland: A case report. *Rev LaryngolOtolRhinol (Bord)* 2012;133:109- 12.
- [6]. Chakrabarti I, Basu A, Ghosh N Oncocytic lesion of parotid gland: A dilemma for cytopathologists. *J Cytol* 2012;29:80- 2