Original Research Paper

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Oncopathology

A CASE REPORT ON ONCOCYTIC CARCINOMA OF PAROTID GLAND IN 40 YEAR MALE: A RARE ENTITY

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ABSTRACT Oncocytic carcinoma is extremely rare neoplasm of the salivary glands predominantly involving parotid gland and affecting males more than females. We are presenting a case of 40 year male patient presenting with complaints of swelling over left parotid region associated with dull aching pain. CT neck with contrast revealed enlarged left parotid gland with? impacted calculus in parotid duct. FNAC reported it as possibility of pleomorphic adenoma. Left sided parotidectomy was carried out which turned out to be oncocytic carcinoma on HPE which was reported using CAP guidelines. This case is reported for its rarity and to describe its relevance to the histologic origin and in clinical practice.

KEYWORDS : Pleomorphic Adenoma, Oncocytic Carcinoma, CAP

INTRODUCTION:

Oncocytic carcinoma is extremely rare neoplasm of the salivary glands. It is primarily a parotid tumor and much less frequently seen in the submandibular gland and minor salivary glands. Men are affected more commonly than women. Wide age group range from 25 to 91 has been reported with a mean age of 62.5 years.[1]

Its malignant nature is distinguished from benign oncocytoma by its invasive growth pattern, cellular pleomorphism and high mitotic and proliferative activity.[2]

Case Report:

A 40 year old male presented with chief complaints of swelling over left parotid region. The swelling was initially smaller in size then gradually increased in size. It was associated with dull aching, on and off pain not radiating to neck or ear and relieved with medication. Pain was not associated with intake of food. There was no complain of fever, facial weakness, decreased hearing or ear discharge. Patient had similar swelling (of size of cricket ball) over bilateral parotid region for 3 years and operated for the same over right parotid 3 years ago. CT Neck with contrast revealed enlarged left parotid gland with? an impacted calculus in the parotid duct. FNAC reported it as highly cellular smears show ductal epithelial cells with myoepithelial cells arranged in groups, clusters and scattered singly in background of blood. Diagnosed as Benign salivary gland lesion – possibility of pleomorphic adenoma.

Left sided parotidectomy was carried out and excised swelling was sent for Histopathological examination. (Figure 1)

Figure 1: Gross Image of the excised specimen

Grossly it was multiple, capsulated, brownish, soft to firm tissue mass measuring 10x7x2.5 cm. On cut section brownish areas were seen (Figure 1)

It was submitted in tissue cassettes for further histopathological processing.

Microscopic examination revealed invasive tumor cells diffusely infiltrating whole of parotid gland with abundant eosinophilic cytoplasm arranged in nests, cord, gland pattern in desmoplastic stroma (Figure 2, 3, 4).

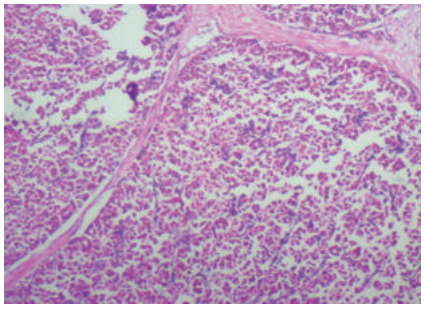

Figure 2: Oncocytic Cells (H & E Stain, 4X view)

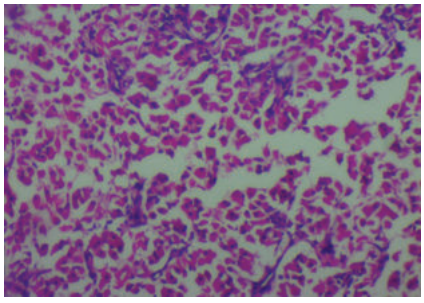

Figure 3: Oncocytic Cells (H & E Stain, 10X view)

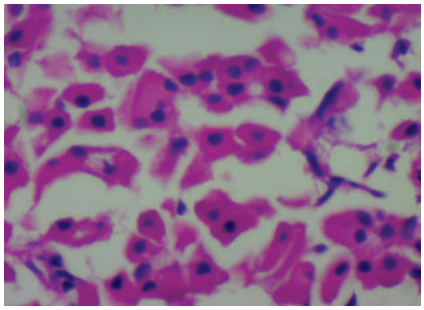

Figure 4: Oncocytic Cells (H & E Stain, 100X view)

Lymphovascular, perineural, muscle, fat invasion was evident (Figure 5, 6, 7). Margins could not be determined as the specimen was received in multiple pieces. Histological type was reported as Oncocytic Carcinoma with pathological staging pT3NxMx.

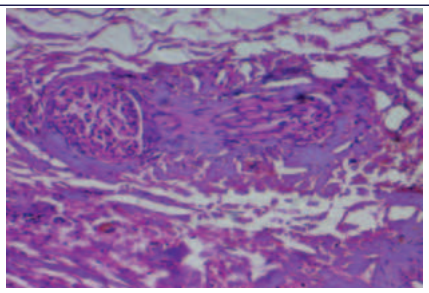

Figure 5: Nerve bundle invasion (H & E Stain, 10X view)

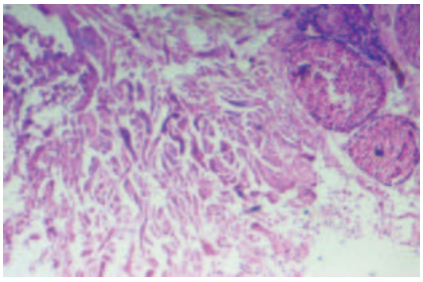

Figure 6: Muscle fiber invasion (H & E Stain, 10X view)

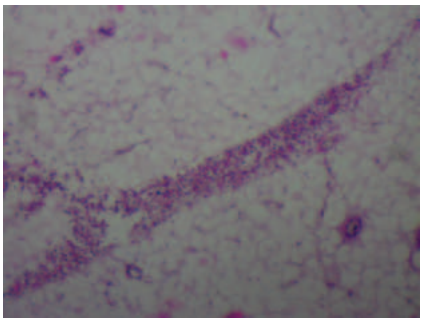

Figure 7: Fat invasion (H & E Stain, 10X view)

DISCUSSION:

Oncocytic carcinoma is an extremely rare malignancy in salivary glands. This neoplasm is characterized by epithelial cells with abundant eosinophilic and granular cytoplasm, filled with numerous mitochondria. Malignant oncocytoma, malignant oxyphilic adenoma and oncocytic adenocarcinoma have been used synonymously for oncocytic carcinoma. The malignant nature of the neoplasm can be recognized by its morphologic features and infiltrative growth. [3] Morphologic criteria for the diagnosis of a malignant nature are cellular pleomorphism, necrosis and frequent mitoses. Infiltrative growth of the neoplasm is represented by perineural, vascular or lymphatic invasion. Oncocytic carcinoma can be differentiated from benign oncocytoma by the presence of a connective tissue capsule in the latter. Moreover, compared to oncocytoma, oncocytic carcinoma usually shows a greater mitotic activity and more nuclear pleomorphism. [4]

CONCLUSION:

Oncocytic carcinoma is a high grade malignancy, therefore aggressive surgical intervention seems to be warranted. Due to its extremely low incidence, lack of special clinical manifestations and lack of typical imaging features, preoperative diagnosis of oncocytic carcinoma is difficult. Histopathological study is crucial for diagnosis.

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