



HIGH GRADE MUCOEPIDEMOID CARCINOMA OF PAROTID WITH EXTENSIVE NECK NODE METASTASIS SPARING FACIAL NERVE - A CASE REPORT

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Abstract : Tumours of major salivary glands account for 3-4 of all head neck neoplasms . Malignant salivary gland epithelial tumours are less common than their benign counterparts. Muco- epidermoid Carcinoma is the most common malignant tumor of salivary gland affecting adults and children. (1,2). 99 of tumours that affect the major glands occur in parotid .High grade mucoepidermoid carcinoma is the carcinoma most often associated with facial nerve palsy. (3) we report a case of 62 yr old gentleman diagnosed with mucoepidermoid carcinoma high grade with extensive neck node involvement but sparing the facial nerve .Patient underwent radical parotidectomy with radical neck dissection with post operative radiotherapy.

Keyword : Malignant parotid tumour, mucoepidermoid carcinoma, high grade tumours, neck dissection, neck node metastasis, salivary tumours

INTRODUCTION:

Mucoepidermoid carcinoma (MEC) is believed to arise from the reserve cells of excretory ducts, consists of four cell types: epidermoid cells, mucous cells , poorly differentiated intermediate cells & clear cells. It is well known that MEC displays a variety of biological behavior, and that while the high-grade MEC is a highly aggressive tumor, its low-grade counterpart usually demonstrates a more benign nature. Several systems have been proposed to grade this neoplasm .⁽⁴⁾ A recent grading schema (Goode's grading) proposed by Auclair et al.& Goode et al. ⁽⁵⁾ has been shown to be reproducible and to be predictive of the patient's outcome by defining low, intermediate and high-grade tumours .

CASE REPORT : A 62 year old gentle man presented with swelling occupying left parotid region & upper part of neck -6 months, it had been rapidly increasing in size since then. H/O loss of weight and appetite present . pain was present since 20 days .NO H/O fever / dysphagia /dyspnoea/chronic cough/ bone pain / jaundice/trauma. He was smoker for the past 20 years. O/E a 6x4 cms, globular swelling , present in left upper part of neck & parotid region lifting the ear lobule , irregular surface , ill defined margin, obliterating the retromandibular groove,hard consistency, fixed to the skin,

masseter and sternocleidomastoid causing restricted mobility, multiple mobile nodes were found in level 2 , 3, 4 & 5 measuring 2- 3 cms . Oral cavity – patient was edentulous , tonsils were normal



pre operative picture - showing location of swelling

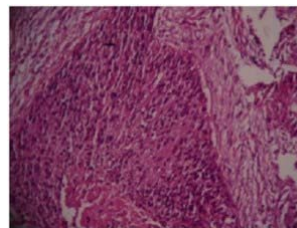


pre operative picture- showing location of cervical lymphnode & parotid swelling PROVISIONAL DIAGNOSIS :Carcinoma parotid with neck node involvement – T 4 N 2b -- STAGE 4

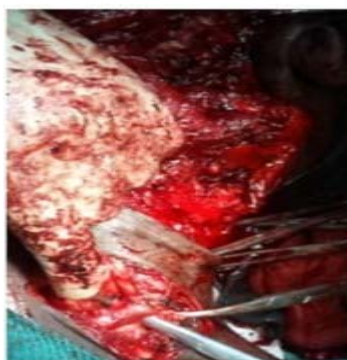
INVESTIGATIONS :



X ray chest – normal, USG abdomen – normal , FNAC of lesion was suggestive of high grade mucoepidermoid carcinoma ,FNAC of lymphnode was positive for malignancy. CT NECK - parotid tumor with multiple cervical lymphadenopathy. SURGERY DONE :Left Radical parotidectomy with left radical neck dissection with Mcfee incision Lazy S incision was made extending from the front of tragus to the mastoid and extending medially 2 cms below the mandible. Skin flaps were raised . Tumour was found to involve deep lobe and facial nerve could not be preserved. Node 5 cms in size was present in carotid triangle , infiltrating internal jugular vein and radical neck dissection was completed by Mcfee incision . wound was closed with a drain .
intra op --> Skin flap raised and tumour appearing below the nerve .



hpe slide in high power



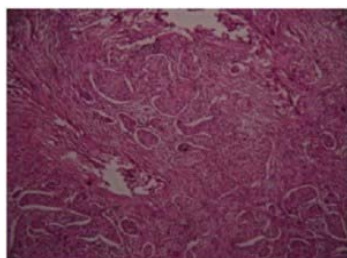
intra operatively --> Internal Jugular Vein being exposed during neck dissection'



after completion of excision and neck dissection ----> angle of mandible covered with masseter, posterior belly of digastric, carotid, mylohyoid, hyoglossus are seen.

HPE report ---> picture is that of high grade muco epidermoid carcinoma. 16/ 16 lymph nodes show metastatic deposits . muscle free from tumor infiltration.

(HPE PICTURE)



hpe slide in low power



POST OP PERIOD :

patient developed partial flap necrosis. Patient was referred for post op RT .

DISCUSSION :

Mucoepidermoid carcinoma is the most common malignant neoplasm observed in the major and minor salivary glands .There is a 3:2 female predilection. Approximately half of the tumors occur in the major salivary glands, with about 45% of MECs occurring in the parotid gland .

Most common malignant salivary gland tumor to affect children and adolescents under 20 years. Incidence- 2-10% in major salivary glands, 10- 41% of minor salivary glands. Presents as slow growing, firm masses, clinically indistinguishable from the more common pleomorphic adenoma Pain is unusual, associated with high grade tumors High grade tumors have poorly defined margins, fixed to adjacent skin & soft tissues, often associated with facial nerve palsy. Grossly appear as circumscribed, encapsulated tumour. cystic features are common . 1-4 cm in the greatest dimension Contains 4 types of cells Mucin secreting cells Epidermoid cells Intermediate cell Clear cells-contain glycogen/ mucin/ both Histological Classification Factors that categorize muco epidermoid carcinoma histologically based on Amount of cyst formation , degree of cytologic atypia , relative no of mucous cells, epidermoid , intermediate cells Classified as low , intermediate & high grade

RADICAL PAROTIDECTOMY is the removal of entire parotid , facial nerve and other involved

tissues such as skin, bone or muscle. Part or all of 7 th nerve must be sacrificed & immediate autologous nerve graft may be done. if Frozen section examination of facial nerve is positive at the stylomastoid foramen , mastoidectomy may be required to complete the resection Neck dissection -includes comprehensive and selective neck dissection . comprehensive is further divided into radical and modified radical type 1,2 & 3 . Radical neck dissection involves **removal of** Nodal groups I-V and Sternocleidomastoid muscle, Internal jugular vein , spinal accessory nerve , Submandibular gland, tail of parotid . Modified radical neck dissection preserves accessory nerve ,

Low Grade	Intermediate Grade	High Grade
Nesting pattern composed of well circumscribed squamous nests c- clear cells	Large, more irregular nests of squamous cells	Solid, similar to infiltrating epidermoid Ca that arises in other regions
Clear cells contain intracytoplasmic mucin Clear cells contain intracytoplasmic mucin	Contain Basilar or intermediate cells that display a cystic component	Contains scanty mucin, careful search and special stains may be needed
No nuclear atypia, no mitotic activity, no infiltrative growth pattern	Nuclear atypia present, mitotic activity present, small infiltrative growth pattern present	Nuclear atypia present, mitotic activity present, small infiltrative growth pattern present
Survival rate: 90-100% Better in younger patients and women, worse > 60 years	Survival Rate: 40-60% Palliative RT for High Grade, residual microscopical margins	Survival Rate: 40-60% Greater tendency to infiltrate, recur, metastasize

sternocleidomastoid , internal jugular vein or all the three . Selective neck dissection includes supra omohyoid , extended supra omohyoid , lateral neck dissection and postero lateral neck dissection . Postoperative radiotherapy for MEC patients with positive surgical margin has been reported to decrease local recurrence . Radical surgery followed by postoperative radiotherapy for salivary gland malignancies has improved local control , but it is difficult to control parotid gland cancer by radiotherapy alone . Patients who received radiotherapy alone all died as a result of their disease, so radiotherapy alone is not effective for MEC.

Radiation therapy -includes parotid bed and upper neck nodes. Neutron therapy is used in the current management of unresectable salivary gland tumours . Higher doses employing altered fractionation is used for patients with microscopic margin positive disease. There is no established role of chemotherapy .

CONCLUSION:

In conclusion, MECs display a variety of biological behaviors and a variable natural history. Clinical stage is an important prognostic factor for MEC ^(6,7,8). Standard treatment for MEC is surgical resection, if possible, with an adequate margin. cases that have a high risk of recurrence due to a close margin or histologic high or intermediate grade need to undergo postoperative radiotherapy

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