RARE TUMOUR OF UPPER LIP: MUCOEPIDERMOID CARCINOMA

Anesthesiology

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ABSTRACT

Mucoepidermoid carcinoma tumours are less common and approximately 5% of tumours of salivary glands. They are slow growing usually asymptomatic at beginning which cause delay in diagnosis. Mucoepidermoid carcinoma tumours commonly occur predominantly in women in fourth to fifth decades of age and their occurrence in the upper lip area is extremely rare. Tumours of upper lip pose difficulty to airway management team due to their proximity to airway, wide resection surgery and repair. Care should be taken to avoid any kind of pressure on swelling during intubation to avoid tumour rupture or tumour bleed.

The prognosis of low-grade Mucoepidermoid carcinoma depends upon its clinical stage and histological grade. Low-grade MEC has better 5-year survival rate in comparison to intermediate and high grade tumours. Cure rate of MEC is excellent after wide local resection.

KEYWORDS

Mucoepidermoid carcinoma, Salivary gland tumour, Salivary gland neoplasm;

INTRODUCTION

Mucoepidermoid carcinoma tumours represent approximately 5% of all salivary gland tumours, out of these, about one-third occur in the minor salivary gland. These are third most frequently encountered minor salivary gland tumours; the affected minor salivary glands are most frequently located in the palate, followed by the lower lip. This variety of tumours commonly occurs predominantly in women in fourth to fifth decades of age; its occurrence in the upper lip area is extremely rare. These tumours are characterized by endophytic growth and clinical appearance is similar to conventional squamous cell carcinoma. They are often slowly progressive; this is the cause of delay in diagnosis. The prognosis of MEC is based upon its clinical stage and histological grade. Low-grade MEC has better 5-year survival rate when compared to intermediate and high grade tumours. Cure rate of low-grade Mucoepidermoid tumours is excellent after wide local resection.

Description Of Case

A male patient 60 years of age was admitted with history of swelling in upper lip region since 8 yrs. He has undergone excision of lump in upper lip region 13 years back and now has come with recurrence. He was smoker since last 20 years. He was non-alcoholic and non tobacco chewer. His bowel and bladder habits were normal. He was complaining of slight dull pain of recent origin in area of swelling.

On Examination there was a solitary swelling in upper lip area, warm on touch, non tender, soft in consistency, non-mobile, no fluctuation, skin over the swelling had normal colour while skin of adjacent area on lip discoloured probably due to smoking habit. There were no palpable loco-regional lymph nodes. His Pulse rate was 80/min, he was afebrile and his systematic physical examination was normal.

Investigations: - His Blood Hb. was 15.7 gm %, BT 02 min 13 sec, CT 04 min 49 sec, Blood Urea 16 mg %, Serum Creatinine 0.49 mg%, Urine Exam. Normal, Chest X-ray and E.C.G. were Normal.

USG Abdomen showed no significant abnormality.

FNAC of swelling was done, it showed malignant epithelial cells arranged in sheets and clusters. Cells showed hypochromic, prominent nucleoli, abundant cytoplasm, irregular nuclear membrane and pleomorphism. The background showed blood and cystic macrophages.

Impression of USG: - Cyto-morphological features suggestive of epithelial malignancy squamous cell carcinoma with cystic degeneration

Biopsy was done and it confirmed the Mucoepidermoid Carcinoma;

multilobulated solid lesion with focal areas of Cystic changes noted in left side of upper lip crossing the midline to involve the right side. It had vascularity in the solid component. Lesion had indistinctive extension to alveolar cortex.

Impression from biopsy was neoplastic aetiology

CECT study of Face revealed mildly enhancing soft tissue mass of size 3.2 X3X 3.7 cm seen in upper lip in the left para-median region crossing midline. Underlying gingivo-buccal space appeared unremarkable. No bony erosion was seen. Nasopharynx and Oropharynx were reported normal. Bilateral pterygoid plates and pterygoid muscles were normal. Para pharyngeal space was normal. Bilateral Maxillary, Ethmoidal, Frontal and Sphenoidal sinuses were clear.

Impression of CECT study of face: - A mildly enhancing, soft tissue mass lesion of size 3.2X3X3.7 C.M. in upper lip in left paramedian region crossing midline. No bony erosion was seen with possibility of Neoplastic aetiology.

METHOD

The Pre-anaesthetic assessment findings were reconfirmed. Oropharynx was normal. There was no adenopathy. Muscles and base of tongue were normal. Alveolar arch and mandible were normal.

The patient was shifted in O.T. I/V cannula was inserted and infusion of I/V Ringer Lactate solution was started. Premedication with I/V Inj. Glycopyrolate, Inj Midazolam 1 mg was given. Patient was induced with I/V Propofol 120 mg followed by I/V Succinyl Choline 100 mg. Since the mass was in the upper lip (Fig. 1) and had focal areas of cystic changes, careful nasal endotracheal intubation was done with 7.5 mm cuffed nasal endotracheal tube through right nostril. Care was taken to avoid any kind of pressure on swelling as mass may rupture or may bleed. Inj. Vecuronium 4.0 mg I/V was given and throat pack was inserted.

Anaesthesia was maintained with N2O, Oxygen and Isoflurane 0.6 to 0.8%, intermittent I/V Vecuronium 1.0 mg. and controlled ventilation on closed circuit.

After excision of mass the lip reconstruction was done. Lips were sutured together due to repair. The surgery lasted for about 120 min. The residual neuro-muscular block was reversed with Neostigmine and Glycopyrolate.

Mouth opening was not adequate to introduce Laryngoscope for removal of throat pack under vision. Steel tongue depressor was

introduced between upper and lower jaw to create adequate space to allow the introduction of Magill's forceps and throat pack was removed after ensuring that there is no bleeding from surgical site. (Fig. 2)

Fig. 1 Site Of Tumour

Fig. 2 Throat Pack Removal

Fig. 3 After Lip Repair

Due to new situation after repair mouth opening and re-intubation may have been difficult, if required, extubation was performed after patient started responding to verbal commands of opening mouth, raising hands, opening eyes and patient's cough reflex returned.

DISCUSSION

Mucoepidermoid carcinoma (MEC) is a malignant salivary gland tumour, composed of a mixture of cells, including mucin-producing epidermoid or squamous cells. (1) The mean age of its occurrence is 44.5 years. (2) The common site of MEC is parotid gland (approximately 44.1%). Low, intermediate, and high-grade neoplasm accounted for 61.7%, 26.5%, and 11.8% of tumours, respectively. (3)

The incidence of malignancy is indirectly proportional to size of the salivary gland. The smaller glands have increased risk of malignancy (4). Common sites for minor salivary gland tumours origin are the palate (55%), buccal mucosa, and upper lip, (5). Palate is most common site of involvement, which accounts for 55%. (5, 6)

Usually MEC presents as asymptomatic swelling. The symptoms like discomfort, pain and problem with denture prosthesis retention may appear in few patients. The tumour may be discovered by dentist incidentally. (6)

The prognosis of MEC depends upon its clinical stage and histological grade. It has good prognosis in children. In children majority of tumours are well-differentiated or grade I type neoplasm. Low-grade MEC has better 5-year survival rate (92% to 100%) as compared to high-grade (0–43%); with overall incidence of lymph node involvement from 18% to 28%. (6, 7) In high grade lesions metastases often occur in Lymph nodes, lungs and bones. Low grade MEC with compressible nature and bluish colouration may give rise to suspicion of underlying vascular pathology. Radiological feature seen in MEC are unilocular or multilocular radiolucent lesion with sclerotic and well-defined margins (8). The lungs are most commonly involved site of metastasis. (9). Treatment advised for MEC is wide excision of lesion along with underlying mucoperiosteum. (10).

Grading of tumours is done into low, intermediate and high grade according to clinical features and histopathology. Low grade tumour is very slow growing mass. Histological examination shows predominance of mucous secreting cells. These are partially encapsulated containing cystic spaces filled with mucin, lined by mucus secreting, epidermoid cells. Intermediate grade tumours comprise of more predominance solid and cystic areas. It contains large amount of intermediate cells with both epidermoid and mucous cells. (11)

Failure to detect tumours in early stage leads to involvement of

maxillary sinus and the nasal cavity. This requires more extensive surgery which includes palatectomy, extended maxillectomy. (12-13) leading to difficult intra-operative anaesthetic management.

CONCLUSION

Many times, atypical location and innocent appearing tumour can mislead and result in incorrect diagnosis. The newer modalities of investigations like CBCT, FNAC and biopsy may be considered for confirmation of diagnosis. MEC should be considered as a diagnostic hypothesis in all oral proliferative lesions, even if its clinical appearance does not suggest malignancy. Prognosis of low-grade Mucoepidermoid carcinoma is excellent after wide local resection. Although malignant minor salivary gland tumours are rare but their close proximity to airway, wide resection surgery and repair poses difficulty to airway management team.

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