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Original Research Paper

General Surgery

A CASE REPORT OF MUCOEPIDERMOID CARCINOMA MIMICKING A BENIGN BILOCULAR CYST.

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ABSTRACT An interesting case of a 29 year old male who came to surgical OPD with a painless, mobile, fluctuant bilocular cyst in post auricular region. The fine needle aspirate showed neutrophils, macrophages, cellular debris in a eosinophilic background. The cystic swelling was completely excised and specimen on histopathology was reported as low grade Mucoepidermoid carcinoma. Recovery was uneventful. This is a unusal presentation of mucoepidermoid carcinoma as a post auricular benign cyst.

KEYWORDS : Cyst, Mucoepidermoid carcinoma, Parotid, Young male.

INTRODUCTION

Mucoepidermoid carcinoma (MEC) is the most common malignant salivary gland tumor, accounting for 10-15% of all salivary gland tumors and one-third of all salivary gland malignancies [1, 2]. It is believed to arise from reserve cells of excretory ducts that are pluripotent in nature [3].

The tumor usually forms as a painless, fixed, slowly growing swelling of widely varying duration that sometimes goes through a phase of accelerated growth immediately before clinical presentation. Symptoms include tenderness, otorrhea, dysphagia, and trismus. Intraoral tumors are often bluish-red and fluctuant, and they may resemble mucoceles or vascular lesions. They occasionally invade the underlying bone.

MECs exhibit remarkable variability in their clinical behavior. The tumor is primarily made up of three cell types in widely varying proportions: intermediate, mucous, and epidermoid. Mucoepidermoid carcinoma, have a prognosis based upon the clinical stage and histological grade with a good prognosis of Mucoepidermoid carcinoma in children as majority of them are well differentiated or grade I neoplasm.6 Low grade mucoepidermoid carcinoma has a better 5 year survival rate from 92–100 % compare to high grade mucoepidermoid carcinoma with 0–43 % survival rate8 with an overall incidence of lymph node involvement ranges from 18–28%.7 Postoperative local recurrence is more likely to occur in patients with positive margins regardless of the grade.8 We report on an unusual unique case of mucoepidermoid carcinoma parotid presented as a bilobed cyst.

We report a case of 29 year-old male who presented with painless cystic swelling behind his left ear lobule for 1 year. This swelling was gradually increasing in size with time. The patient was otherwise fit and well. Clinical examination revealed a 4×6 cm smooth, spherical swelling behind his left lobule which was normothermic, non tender, soft in consistency, mobile, fluctuant, and not fixed to the underlying structures nor adherent to the skin. His facial nerve was intact and regional lymph nodes were not palpable.

Ultrasound examination findings showing a large well defined lobulated, cystic lesion of size 3.6 * 1.8 * 4.1 cm in post auricular region. Examination revealed hemoglobin 12.4 gm/dl, X-ray chest was normal. USG guided Fine needle aspiration showed predominantly neutrophils, macrophages, cellular debris in a eosinophilic background. Suggested Acute suppurative lesion. Gram- staining & ZN staining were negative with no evidence of atypical cells.

At operation a thick walled cystic swelling was found behind the left ear lobule which was arising from posterior part of parotid gland and superficial parotidectomy was done and the specimen was sent for histopathology (Figure-1&2).

Macroscopically the cyst was rounded with smooth surface. Cut section revealed a smooth glistering lining with deep yellow colour fluid in side (Figure-3). Histological findings were consistent with low grade mucoepidermoid carcinoma. The tumour cells were round to ovoid in shape, having vesicular nuclei with prominent nucleoli and deep eosinophlic cytoplasm arranged into groups and sheets (Figure-5).

The patient recovered smoothly and was discharged on 6 postoperative day. The unusual presentation of mucoepidermoid carcinoma of parotid as a bilocular cystic lesion and mimicing a acute supprative lesion is few of rare presentation of case report.

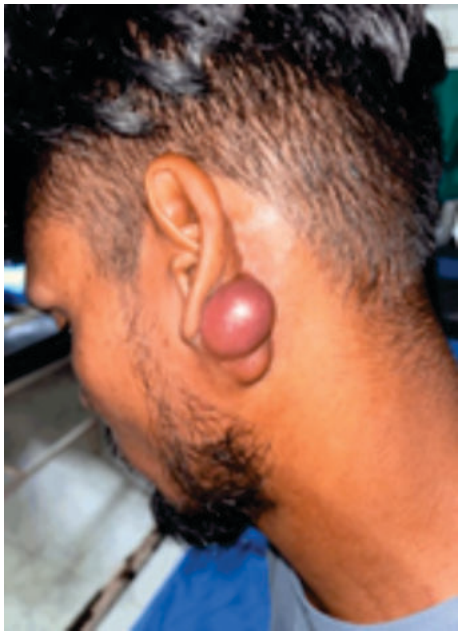

Figure 1: Preoperative Picture Of The Patient Showing Cystic Swelling In Post Auricular Region.

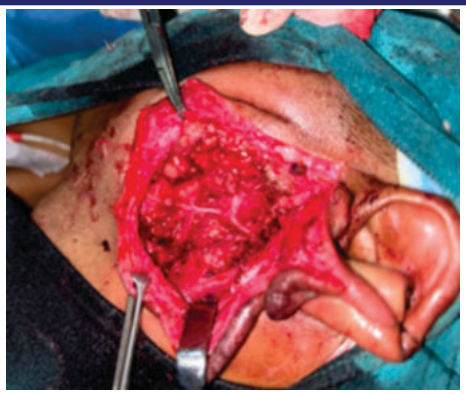

Figure 2: Showing Intra Operative Picture Clearly Visualizing Facial Nerve.

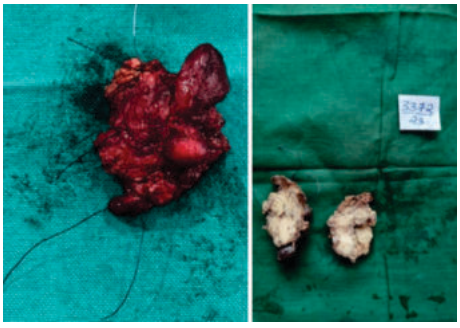

Figure 3 & 4 : Showing Specimen Sent For HPE And It's Cut Size.

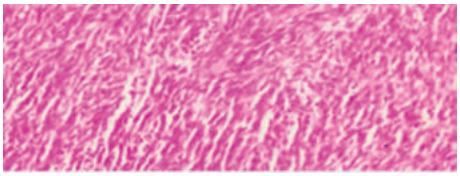

Figure 5: Showing HPE Slide Of Specimen Showing Mucoepidermoid Carcinoma.

DISCUSSION

Salivary gland malignancies comprise less than 5% of all head and neck malignancies [5]. MEC is the most common malignant salivary gland tumour, usually affecting the minor salivary glands and the parotid gland [6]. MEC accounts for approximately 50% of all parotid malignancies, boasting an incidence rate of 2.3 per 1,000,000 [7,8]. MEC is noted to have a slight predilection to afflicting females, usually affecting adults in their fourth to sixth decades, with the highest prevalence during the fifth decade of life [9]. The origin of MEC is thought to be the pluripotent cells of the excretory ducts of glandular structures [6]. The diagnosis of MEC requires the identification of three cell types, including the epidermoid, mucous, and intermediate cells, each occurring at different proportions, leading to a spectrum of clinical and pathologic behaviours [10].

MEC is classified histopathologically into three grades, which include low, intermediate, and high grades. Low-grade MEC, observed in 48% of the cases, is more common than high grade, which is noted in 38.7% of the cases, while intermediate grade is the least common and is observed in merely 13.3% of the total cases [9]. Histopathologically, they are classified on the basis of the degree of cytological atypia, amount of cyst formation, and the relative number of intermediate, epidermoid and mucous cells [11]. High-grade tumours are considered to be malignant tumours with a poorer prognosis, and usually contain more squamous cells. On the other hand, low-grade tumours are considered less aggressive, and contain a higher proportion of cystic spaces lined with mucous cells [12].

MEC presents clinically as a slow, painlessly enlarging mass mimicking a pleomorphic adenoma, or other benign neoplasms. High-grade malignancies may present as a rapidly growing painless mass infiltrating adjacent structures, thereby culminating in facial nerve palsy. High-grade malignancies are also associated with extra-oral ulceration and metastasis to lymph nodes, lungs, and bone [11]. Nevertheless, the presentation of high-grade MEC as an exophytic, fungating mass remains exceedingly rare. Surgical excision of the tumour, through the means of a superficial parotidectomy, remains the cornerstone of treatment. While low-grade tumours are routinely amenable to local surgical resection, high-grade tumours are usually treated with a wide resection of the tumour [13].

CONCLUSIONS

MECs are rare tumours of the salivary glands. No specific guidelines have evolved for the management of these tumours, but surgical excision is mandatory along with a long-term follow-up. In particular, low and intermediategrade MECs of salivary glands tend to have a favourable outcome compared with high-grade MECs that have a greater tendency to recur and metastasise. The clinical stage continues to be both a prognostic factor for overall survival and a predictive factor of distant metastases. Therefore, both correct clinical staging and immunohistochemical findings associated with careful follow-up are important factors in minor salivary gland malignancies, especially high-grade MECs, for appropriate management of these tumours.

While the vast majority of parotid gland tumours are benign, malignant tumours include neoplasms such as MEC. An enlarging, high-grade MEC presents clinically as a painless, fixed mass; however, its presentation as a fungating, exophytic mass remains exceedingly rare. Left undetected, MECs can proliferate to encase the facial nerve, necessitating the resection of the nerve or one of its branches. Early detection of such tumours through the means of multimodal imaging, along with a multidisciplinary team approach and meticulous clinical history, is therefore imperative in portending favourable disease outcomes.

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