CASE REPORT

MUCOEPIDERMOID CARCINOMA OF PAROTID PRESENTING AS UNILOCULAR CYST

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An interesting case of a 09 years old girl is reported who presented with a painless, mobile, spherical, fluctuant and brilliantly translucent swelling in front of left ear. The fine needle aspiration revealed turbid dark yellow colour fluid. This cystic swelling was completely excised and the specimen on histopathology was reported as low grade Mucoepidermoid carcinoma. Recovery was uneventful. This unusual presentation of Mucoepidermoid carcinoma as a preauricular cyst is one of the rare unique reported case.

Keywords: Cyst, Mucoepidermoid carcinoma, Parotid, Child.

INTRODUCTION

In 1945, Stewart *et al*[1] recognized Mucoepidermoid of the salivary gland as a separate entity among salivary neoplasm. Mucoepidermoid Carcinoma is thought to arise from pluri-potent reserve cells of the excretory ducts of salivary gland that have the potential to differentiate into squamous, columnar and mucous cells.[2] Although no specific etiologic factors have been identified exposure to ionizing radiation has been reported in some cases.[3] A mucoepidermoid carcinoma account for 5% of all salivary gland tumours commonly arise within the parotid gland and is the most common malignant tumour to arise in children and adolescents under 20 years of age.[4] The tumour is a firm to hard mass and usually asymptomatic. Pain is associated with high grade malignant tumours. Mostly they do not cause facial nerve paralysis when they occur in parotid gland.[5]

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 rate[8] 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 unilocular cyst.

CASE REPORT

We report a case of 9-year-old girl who presented with painless cystic swelling in front of her left ear for 1 year. This swelling was gradually increasing in size with time. The girl was otherwise fit and well. Clinical examination revealed a 4×7 cm smooth, spherical swelling in front of left ear which was normothermic, non tender, soft in consistency, mobile, fluctuant, brilliantly translucent and not fixed to the underlying structures nor adherent to the skin. Her facial nerve was intact and regional lymph nodes were not palpable.

Ultrasound examination findings show a cystic component. Blood examination revealed haemoglobin 10.2 gm/dl, X-ray chest was normal. Fine needle aspiration revealed deep yellow turbid fluid with protein content of 4.4 gm. WBC count 110/cm, Lymphocytes 80%, Neutrophils 20%, RBC Plenty and gram- staining & ZN staining were negative with no evidence of atypical cells.

At operation a thick walled cyst was found in front of the left ear which was completely excised 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-4).

The patient recovered smoothly and was discharged on 4th postoperative day. The unusual presentation of mucoepidermoid carcinoma of parotid as a unilocular cystic lesion is one of the rare youngest reported patient.

DISCUSSION

Salivary gland tumours account for less than 5% of head and neck neoplasm with mucoepidermoid carcinoma is the most common malignant tumour mostly arises in parotid gland.[4]

The paediatric parotid gland and peri-parotid region are subject to a variety of lesions and are most often evaluated with ultra sound, contrast CT and MRI. Ultrasound distinguish cystic from solid lesion and guide fine needle aspiration.[9]

Tumours of the salivary glands are uncommon in children; accounting for only 1% of all paediatric neoplasm commonly arises in parotid gland.[10] Up to 65% of the tumours are benign and larger the gland of origin in children the most likely that tumour will be malignant.[11]

Mucoepidermoid carcinoma is the most common malignant salivary gland neoplasm in children and adolescence and is rarely found in children under the age of 10 years.[10] Up to 35% of all salivary neoplasms in

children are malignant, and 60% of these are mucoepidermoid carcinoma.[11] The histological pattern in mucoepidermoid carcinoma consists of a combination of squamous and mucous cells arranged in cords, sheets, or cystic configuration and are classified as low, intermediate or high grade.[8]

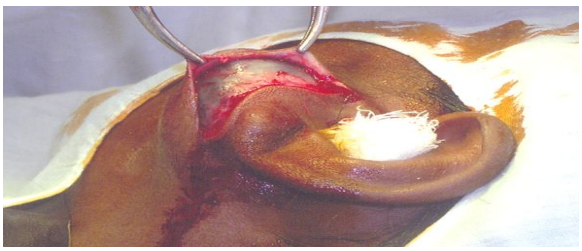

Figure-1 Cyst has been exposed during excision

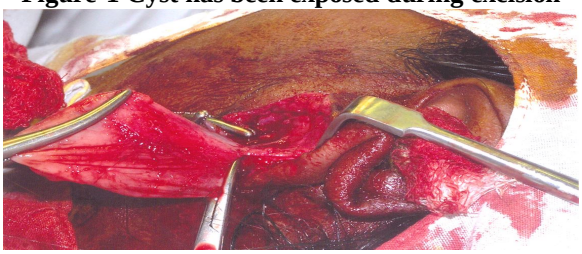

Figure-2: Mucoepidermoid carcinoma cyst is completely excised.

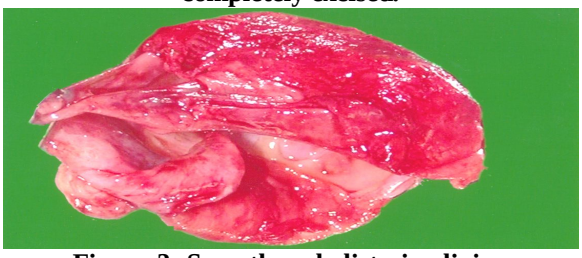

Figure-3: Smooth and glistering lining Mucoepidermoid carcinoma cyst

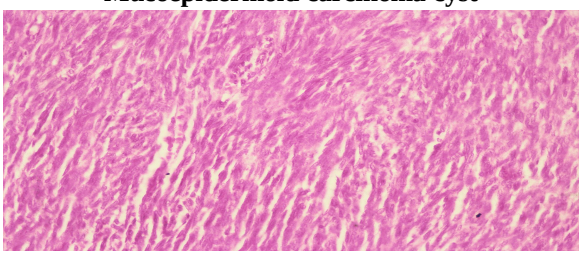

Figure-4: Histopathology slide of cyst wall showing mucoepidermoid carcinoma

Mucoepidermoid carcinoma is the most common malignant salivary gland neoplasm in children and adolescence and is rarely found in children under the age of 10 years.[10] Up to 35% of all salivary neoplasms in children are malignant, and 60% of these are mucoepidermoid carcinoma.[11] The histological pattern in mucoepidermoid carcinoma consists of a combination of squamous and mucous cells arranged in cords, sheets, or cystic configuration and are classified as low, intermediate or high grade.[8]

Mucoepidermoid carcinoma is treated surgically with local wide block excision for low grade neoplasms and wide block excision with radical neck dissection for high grade neoplasms where there is clinical evidence of regional metastasis, high TNM stage, high histological grade and involvement of regional lymph nodes.[9–11]

Radiotherapy should be used only in selected cases because of long term adverse effects and the role of chemotherapy in the management of mucoepidermoid carcinoma is generally reserved for patients with aggressive local or metastatic disease that is not amenable to surgical or radiation therapy with long term follow up is essential to rule out late recurrence.[12]

CONCLUSION

Mucoepidermoid carcinoma of the parotid is very rare in children. Clinical stage and histological grade are the main prognostic factors. As conclusion, although rare, the presence of a parotid cyst with progressive growth in a child could correspond to a mucoepidermoid carcinoma.

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