A RARE CASE OF LACRIMAL SAC MALIGNANCY (EPIDERMOID CARCINOMA)
E. Hemalatha Devi, G. Ravi Chandra, I. Lakshmi Spandana

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ABSTRACT: INTRODUCTION: Lacrimal sac is the closed upper end of the nasolacrimal duct and has a fibro-elastic wall lined internally by mucosa that is continuous with the conjunctiva through the lacrimal canaliculi and within the nasal mucosa through the nasolacrimal duct. Primary lacrimal sac tumors are rare compared to other orbital tumors. Mucoepidermoid carcinoma is a tumor that contains both neoplastic mucin producing and epidermoid cells. Mucoepidermoid carcinoma of the LS is very rare. Early treatment of these tumors is essential because they tend to be infiltrating tumors. Multiplanar CT imaging of the paranasal sinuses and orbit is essential for defining the extent of the tumor and for finding evidence of bony destruction of the lacrimal fossa. PRESENTATION OF CASES: In the department of ophthalmology, G.S.L medical college, Rajahmundry, we came across a case of 60 years old male with a history of swelling and lacrimation in right eye since 1 year, provisionally diagnosed to be Lacrimal gland adenoma with suspicious malignant change. CONCLUSION: it is first of its kind we came across after many years and review of literature reveals various sac malignancies. Methodical approach, correct pathological report and radiological diagnosis are vital to decide the treatment modalities like simple excision, radical surgery, radio therapy. From this case we acquired immense knowledge about sac tumours and various treatment modalities and disease course, made us easy to tackle in such cases of sac malignancies in future. KEYWORDS: Mucoepidermoid, Lacrimal gland adenoma, Epidermoid.

INTRODUCTION: Mucoepidermoid carcinoma is a tumour composed of neoplastic mucin-producing cells and epidermoid cells. Although it most frequently affects the salivary glands it has also been reported in the ophthalmological literature in the conjunctiva,(1) lacrimal gland,(2) and lacrimal sac.(3)

MATERIALS AND METHODS: In the department of ophthalmology we came across a rare case of lacrimal sac epidermoid carcinoma in a 60 years male.

CASE REPORT: Male patient aged 60 yrs came with a complaint of watering of right eye and swelling at the inner canthus 1 yr duration. On clinical examination swelling of size 1*1cms, hard in consistency present on the medial canthus of right eye (Fig. 1), other anterior segment and fundus are normal. Patient had treatment’ed by ENT surgeon in the past, FNAC was done report Lacrimal gland adenoma with suspicious malignant change, later mass was excised and HP report suggested bening mixed tumour. We again repeated FNAC and reported as Oncocytoma lacrimal sac, CT scan report says bening neoplasm. (Fig. 2, 3)
Basing on above report, we decided to operate on this case. Complete excision of tumour was done under GA, no involvement of orbit, except small adherence to ethmoidal bone noted, mass sent for histopathological report, Pathologist finally reported as low grade malignant epithelial tumour likely to be salivary gland type – muco epidermoid carcinoma after immune histochemistry.\(^{(2,4,5)}\)

Immediately we referred the case to cancer institute, Hyderabad Basava Tarakam Indo American hospital and research center and they confirmed it as epidermoid carcinoma of the sac and gave 6000 Gy radical therapy over 30 fractions in 6 weeks. We reviewed the case after radiotherapy, no recurrence noted by MRI in future.

**DISCUSSION:** Lacrimal sac tumors are malignant in 55% of cases with a distinction made between epithelial and non-epithelial tumors. Epithelial tumors account for more than two-thirds of all malignant tumors of the lacrimal sac.\(^{(4)}\) The most frequent malignant lesions of the LS are squamous and transitional cell carcinoma: the less common types are adenocarcinoma, oncocytic adenocarcinoma, adenoid cystic carcinoma and mucoepidermoid poorly differentiated carcinoma.\(^{(5,6,7)}\) Non epithelial LS tumors include mesenchymal lesions (fibrous histocytoma, fibroma, hemangioma, angiosarcoma and lipoma), lymphoid lesions. Malignant melanoma, granulocytic sarcoma and neuronal tumors.

The mucoepidermoid carcinoma is the salivary glands most frequent malignant tumor and it affects the major and minor salivary glands.\(^{(8,9)}\) It’s the most common malignant tumor in the parotid (60-70% cases).\(^{(8,9)}\) Its origin is the epithelium of the glandular excreting duct, and it may also develop in the nasal cavity minor salivary glands, maxillary sinuses, nasopharynx, oropharynx, larynx, vocal cords, trachea, lungs and lacrimal glands.\(^{(8,10,11)}\)

Mucoepidermoid carcinoma is a tumor that contains both neoplastic mucin producing and epidermoid cells.\(^{(12)}\)

The diagnosis of MEC typically requires the coexistence of 3 cell types: epidermoid, intermediate and mucin secreting cells.\(^{(13)}\)

Multiplanar CT imaging of the paranasal sinuses and orbit is essential for defining the extent of the tumor and for finding evidence of bony destruction of the lacrimal fossa.\(^{(14)}\)

The treatment of LS tumors is often multidisciplinary and modalities can include surgery, chemotherapy, immunotherapy, and radiotherapy, depending of the histologic type and anatomic extent of the tumor\(^{(15)}\) most patients underwent exenteration with postoperative radiation therapy when the soft tissue margins were positive for tumor infiltration.\(^{(16,17)}\)

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Figure 1 & 2
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AUTHORS:
1. E. Hemalatha Devi
2. G. Ravi Chandra
3. I. Lakshmi Spandana

PARTICULARS OF CONTRIBUTORS:
1. Professor, Department of Ophthalmology, G. S. L. Medical College, Rajahmundry.
2. Final Year Post Graduate Resident, Department of Ophthalmology, G. S. L. Medical College, Rajahmundry.
3. Post Graduate Resident, Department of Ophthalmology, G. S. L. Medical College, Rajahmundry.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:
Dr. G. Ravi Chandra,
Final Year Post Graduate Resident,
Department of Ophthalmology,
Rajahmundry-533101, East Godavari,
Andhra Pradesh, India.
E-mail: chandra1547@gmail.com

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