

## Clinicopathologic Features of Epithelial Lacrimal Gland Tumors in Ibadan

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**Introduction:** Lacrimal gland masses account for 5 to 13% of all surgical specimens from the orbit<sup>1,2</sup> and are traditionally classified as 50% epithelial and 50% non-epithelial in origin<sup>3</sup>. However, recent studies<sup>1,4</sup> have reported that the proportion of epithelial lacrimal gland tumors is lower than earlier documented. Epithelial lacrimal gland tumors comprise benign and malignant lesions with the proportion of benign tumors to malignant tumors reported to be 55% benign and 45% malignant<sup>5</sup>. However, higher proportion of benign tumors have been reported among Asians compared to Caucasians in recent studies suggesting regional variability in the pattern of distribution of these tumors<sup>6</sup>. Hence, we prospectively studied all cases of histologically confirmed epithelial lacrimal gland tumors managed at a tertiary center in Nigeria. The objective of this study is to describe the clinical features, histopathologic profile and treatment of epithelial lacrimal gland tumors in a homogenous black African population

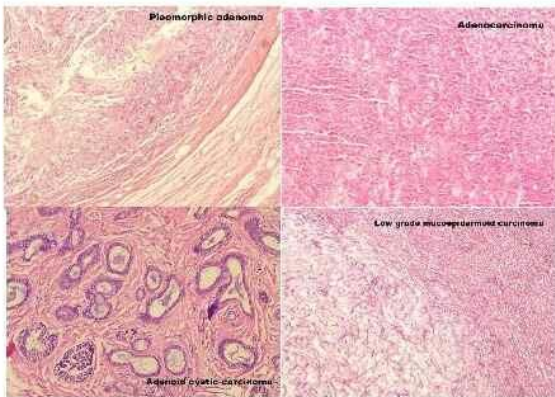
**Methods:** Included in this study are all patients with histopathological diagnoses of epithelial tumors of the lacrimal gland managed at the Oculoplasty and Ocular oncology Unit, Eye Clinic, University College Hospital, Ibadan, Nigeria, between July 2008 and June 2018. The information recorded for the patients included their demographics, presenting symptoms and duration, findings on clinical examination, radiological investigations, operative findings, histopathological details, and post-operative management.

**Results:** Fifteen patients comprising nine (60%) males (M: F, 1.5: 1) and a mean age at

presentation of 41.7 years  $\pm$  16.1 years (range, 17 years to 70 years) were seen during the 10-year period. The commonest clinical presentation was non-axial proptosis, with a palpable firm to hard mass in the superotemporal orbit in all the patients (Figure 1), and the average duration of symptoms was 41.8 months  $\pm$  41.4 months (range, 3 months to 120 months). The right eye was affected in 11 (73.3%) patients, and seven (46.7%) eyes were categorized blind (acuity  $<3/60$ ) at presentation. Ten (66.7%) patients underwent orbitotomy and en bloc tumor excision, while five (33.3%) patients had orbital exenteration. Histopathologic examination revealed pleomorphic adenoma in eight (53.3%) patients, low grade mucoepidermoid carcinoma in three (20%) patients, adenoid cystic carcinoma in two (13.3%) patients, high grade mucoepidermoid carcinoma in one (6.7%) patient, and adenocarcinoma in one (6.7%) patient (Figure 2). Three (37.5%) of eight patients with pleomorphic adenoma had recurrent orbital swellings, while two patients (with adenocarcinoma and low grade mucoepidermoid carcinoma) received adjuvant chemotherapy and/or radiation therapy post-operatively. The only case of high grade mucoepidermoid carcinoma died while on admission, presumably from metastatic disease. Patients were followed up for an average of 6 months (IQR, 36 months; range, 2 months to 108 months).



**Fig. 1:** Clinical photographs of patients with lacrimal gland tumors



**Fig. 2:** Histopathological micrographs of lacrimal gland tumors

**Discussion:** This case series has demonstrated that epithelial lacrimal gland tumors are relatively uncommon in our black African population, and delayed presentation with loss of vision are common features. Pleomorphic adenoma is the commonest histologic type and patients with this benign tumor can have recurrent swelling after excision of the tumor, hence, long term follow up is advised for all patients with epithelial lacrimal gland tumors.

### References

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