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M Kurli, K Hollingworth, V Kumar and S Sandramouli

Wolverhampton and Midland Counties
Eye Infirmary, Compton Road
Wolverhampton WV3 9QR, UK

Correspondence: S Sandramouli
Tel: +44 1902 645 006
Fax: +44 1902 645 018
E-mail: smouli@tinyonline.co.uk

Sir,

Primary squamous cell carcinoma of the lacrimal gland

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Primary malignant neoplasms of the lacrimal gland are uncommon causes of lacrimal gland swelling,[1] and they form only 1–2% of referral to specialist orbital clinics.[2] Primary squamous cell carcinoma of the lacrimal gland is a rare epithelial neoplasm. Only two reports of primary squamous cell carcinoma of the lacrimal gland have been briefly mentioned in the literature.[3,4] We report the clinical, radiological, and pathological features of primary squamous cell carcinoma of the lacrimal gland in an elderly woman.

Case report

An 80-year-old lady was referred to the Ocular Oncology service in June 2000. She had an 8-month history of painless progressive proptosis of the left globe and complained of a 2-month history of vertical diplopia. On examination, visual acuity was 6/6 in the right eye and 6/24 in the left eye, the latter because of corneal punctate epitheliopathy from exposure. There was 3 mm of nonaxial proptosis and inferior dystopia of the left globe with gross limitation of upward gaze. A firm smooth nontender mass was palpable over the lacrimal fossa.

A CT scan showed a left-sided lacrimal gland mass without bony erosion. A metastatic screen including chest X-ray, ultrasound scan of liver and liver function tests were normal. The clinical picture and CT findings were suggestive of a benign lacrimal gland tumour (Figure 1).

An en-bloc surgical excision of the tumour was carried out via a trans-septal approach. Macroscopically, the tumour measured $30 \times 22 \times 20\,mm^3$ with a necrotic interior.

The histopathological examination showed a poorly differentiated squamous cell carcinoma of the lacrimal gland. The tumour arose from a cyst lined by dysplastic squamous epithelium, confirming an origin at this site (Figure 2). It was incompletely excised. Subsequently, the patient received 52 Gy of radiotherapy in 20 fractions over 1 month. During this treatment, she required a lateral tarsorhaphy for corneal exposure from a frozen globe and later developed radiation-induced cellulitis, which was treated with liquid paraffin cream and antibiotics. This settled, and her postoperative recovery was otherwise unremarkable. A follow-up of 20 months showed no recurrence of the tumour and no evidence of a primary tumour at an alternative site.

Comment

The most common epithelial tumours of the lacrimal gland are benign mixed tumours (pleomorphic adenomas), adenoid cystic carcinomas, and adenocarcinomas. Some of the primary malignant

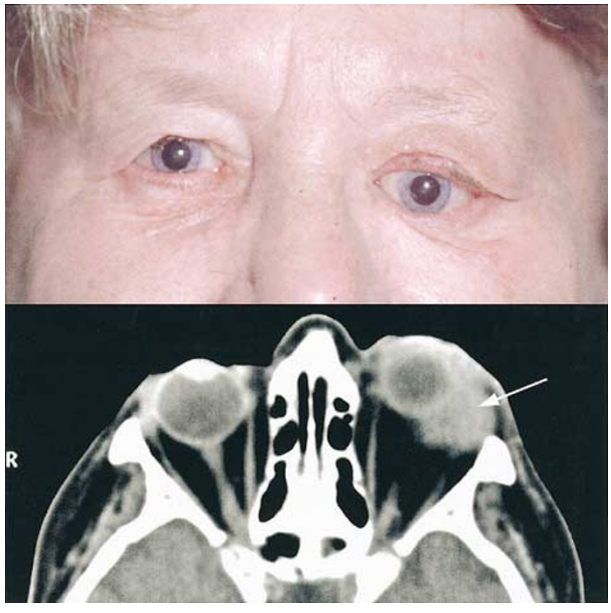

Figure 1 Top: The patient preoperatively shows inferior dystopia of the left globe. Bottom: Axial CT scan of the orbits shows a well-circumscribed lacrimal gland mass (white arrow) in the lacrimal fossa with no bony erosion.

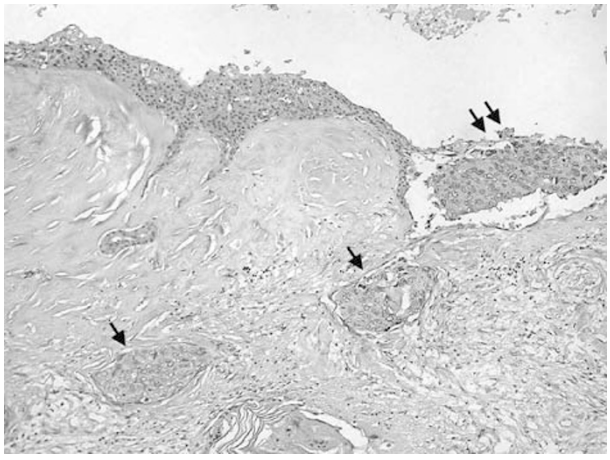

Figure 2 Invasive squamous cell carcinoma of the lacrimal gland (single arrow) arising from a cyst lined by severely dysplastic squamous epithelium (double arrow). Haematoxylin and eosin, magnification ×100.

epithelial tumours may arise from a pre-existing pleomorphic adenoma, the so-called carcinoma ex-pleomorphic adenoma, but most arise *de novo*.

Primary squamous cell carcinoma of the lacrimal gland is rare. Wright *et al*[3] described the characteristics of 50 malignant neoplasms of the lacrimal gland over a 28-year period, and identified only one squamous cell carcinoma. This occurred in a 14-year-old boy, who was alive and well 15 years following local resection and radiotherapy. Font and Gamel[4] reviewed over 265 cases of epithelial tumours of the lacrimal gland. Of these, they reported only one squamous cell carcinoma that arose in a previous benign mixed tumour 17 years after resection in a 63-year-old lady. Henderson and Farrow[5] reviewed the features of 10 cases of primary malignant mixed tumours of 764 orbital tumours at the Mayo Clinic from 1948 to 1974; two of these were squamous cell carcinomas. However, in all their cases the malignant component was associated with variable-sized areas of residual benign mixed tumour, and they suggest that these cases represent malignant transformation of the epithelial component of the benign mixed tumour. Pathological examination in our case showed no evidence of benign mixed tumour, but an origin from a squamous-lined cyst was identified.

The lacrimal gland is considered to be a minor salivary gland, and there is a similar report of a squamous cell carcinoma arising within a cyst of the submandibular gland[6].

Malignant lacrimal gland tumours typically present with a short history and pain. The absence of pain and bony erosion on a CT scan in our case suggested that a benign tumour was likely. This case illustrates a rare histological variety of lacrimal gland tumour whose clinical features mimicked that of a benign lacrimal gland tumour. To our knowledge, this is the first report describing in detail the clinical and radiological features of primary squamous cell carcinoma of the lacrimal gland.

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S Fenton[1], S Srinivasan[1], A Harnett[2], I Brown[3], F Roberts[3] and E Kemp[1]

[1]The Tennent Institute of Ophthalmology
Gartnavel General Hospital, Glasgow
Scotland, UK

[2]The Beatson Oncology Centre
Western Infirmary, Glasgow, Scotland, UK

[3]The Department of Pathology,
Western Infirmary, Glasgow, Scotland, UK

Correspondence: Dr S Fenton
Knockion
Cunningham Road
Dalkey, County Dublin, Ireland
Tel: +353 1285 9704
E-mail: fentons@indigo.ie

Sir,

Choroidal melanoma presenting as a haemorrhagic detachment in a 12-year old

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Choroidal melanoma is the commonest primary intraocular malignancy.[1] Usually seen in the fourth and