Adenosquamous carcinoma of the lacrimal caruncle: a case report

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SUMMARY A 76-year-old Caucasian woman presented with a caruncle tumour, histologically diagnosed as mixed adenosquamous carcinoma. Complete excision was performed, but this necessitated removing parts of the lacrimal canaliculi. No local recurrence or distant metastasis was found after six months’ follow-up, and spontaneous recanalisation of both canaliculi occurred. This tumour is believed to be a primary adenosquamous carcinoma of the caruncle and possibly the first reported case. Long term follow up is planned to detect late metastasis, but complete excision of the tumour and its favourable site should yield a good prognosis.

A 76-year-old Caucasian woman presented with a painless swelling in the inner corner of her right eye. This had been slowly growing over a period of several months. On examination, a firm round swelling with an ulcerated top was present in the area of the right caruncle, measuring 2×2 cm in diameter (Fig. 1). On biomicroscopy the lesion appeared to compress both the lacrimal canaliculi. The patient, however, did not complain of epiphora. No regional lymphadenopathy was present. Further ocular examination, the medical history, and physical examination provided no additional information.

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PATHOLOGICAL FINDINGS

A white, ovoid, fleshy mass about 1.0 cm in maximum dimension was partly covered by skin and with fat attached to the deep margin. Microscopic examination showed the mass to consist of a carcinoma arranged in sheets and trabeculae (Fig. 3). There were interconnected small cystic spaces in the

Fig. 1 Right eye, showing a round mass occupying the region of the caruncle.

Fig. 2 Appearance of the right eye following excision of the tumour. No evidence of epiphora.
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Fig. 3 Caruncle arranged in sheets and trabeculae with occasional mitosis. (Haematoxylin and eosin, × 234.)

Centre of the tumour and a possible punctum opening on to normal skin covering the surface (Fig. 4). The deep margin had a fairly well defined and rounded border with a fibrous pseudocapsule (Fig. 5) in which were a few chronic inflammatory cells. The appearance suggested that the tumour had arisen in a gland opening into the skin surface.

The tumour was composed mainly of clear cells with moderate nuclear pleomorphism and a moderate number of mitoses. In some places there was partial glandular differentiation and in others squamous changes (Fig. 6). Stains for mucins were negative, and there was only a little glycogen. Classification proved difficult, but descriptively it was an

Fig. 4 Surface of the tumour with a punctum opening on to the skin (arrowed). (Haematoxylin and eosin, × 40.)

Fig. 5 Subcutaneous border of the tumour with fibrous pseudocapsule in the lower part of the picture. (Haematoxylin and eosin, × 40.)

'adenosquamous' carcinoma probably arising in glands of the caruncle.

Follow-up
In view of the pathological findings the patient was fully investigated to exclude the presence of systemic malignancy. Full physical examination, chest x-ray, full blood count, and liver function tests showed no abnormality. A six-month follow-up showed no

Fig. 6 There is trabecular carcinoma in the upper part with occasional acinar spaces. The lower centre shows keratinising tumour (arrowed). (Haematoxylin and eosin, × 105.)
evidence of systemic malignancy and no local recurrence of tumour. The lacrimal canaliculi remained patent, and the patient did not complain of epiphora.

Discussion

Caruncle tumours are relatively rare,1-3 and malignant tumours are reported to be extremely rare in this region.2 The commonest tumour is the papilloma,2,4-5 while sebaceous carcinoma is the commonest malignant tumour.2

The caruncle may be the seat of any tumour that occurs in the conjunctiva as well as the adjacent skin of the eyelids. This is because embryologically the caruncle is developed from the lower eyelid, being cordoned off by the lower canaliculus.6 Although the surface epithelium is mucous membrane, the caruncle bears all the skin elements, including hair follicles, sweat glands, and sebaceous glands.7

We were unable to find any previous reports of mixed adenosquamous carcinoma arising within the caruncle region, and it is our belief that this is the first reported case. Cases of adenocarcinoma and squamous carcinoma in the caruncle have been reported8,9 but not mixed. Luthra et al.1 in reviewing 112 caruncle lesions found no such lesion. Ni et al.10 studied 512 cases of malignant eyelid tumours and found no similar lesion.

The possibility of this tumour being metastatic in origin was raised. However, no systemic malignancy was found after a six-month follow-up. The possible routes of spread of caruncle tumour should be considered. Apart from the usual routes of spread, namely, blood stream, lymph vessels, and direct metastases, Kielar11 has suggested the possibility of intracanalicular shedding of the tumour cells as an additional route. In the present case both canaliculi appeared to be involved, and complete excision of the tumour involved part of the carunculus. Of interest, however, is the full recanalisation of both canaliculi and absence of epiphora following surgery.

The possibility of metastases is still present. Luthra et al.1 reported a case of sebaceous gland adenocarcinoma that first recurred 10 years after excision followed by a second recurrence a year later, then a third recurrence the following year. This was in spite of surgery and irradiation therapy. Wilkerson and Winguist11 reported a bilateral papillary cystadenoma occurring in a woman six months after the first appearance.

In our case we believe the early detection and radical excision of the tumour may yield a better prognosis for the patient. It is generally believed that their relative isolation, ease of removal, and early detection and treatment usually result in an increased survival.10,13

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References


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