



Figure 2 A 3 × 3-cm nodular mass with central hemorrhage and ulceration on the medial aspect of the right upper eyelid. The inflammatory tumor initially mimicked an hordeolum.

patients with documented malignant hematologic disorders for a second malignancy.

References

- 1 Abruzzo LV, Griffith LM, Nandedkar M *et al*. Histologically discordant lymphomas with B-cell and T-cell components. *Am J Clin Pathol* 1997; **108**: 316–323.
- 2 Kim H. Composite lymphoma and related disorders. *Am J Clin Pathol* 1993; **99**: 445–451.
- 3 Jennette JC, Reddick RL, Saunders AW, Wilkman AS. Diffuse T-cell lymphoma preceded by nodular lymphoma. *Am J Clin Pathol* 1982; **78**: 242–248.
- 4 Shimizu K, Hirano M, Maruyama F *et al*. T-cell malignancy following B-cell lymphoma in remission. *Am J Clin Pathol* 1989; **92**: 362–366.
- 5 Euvrard S, Noble CP, Kanitakis J *et al*. Brief report: successive occurrence of T-cell and B-cell lymphomas after renal transplantation. *N Engl J Med* 1992; **327**: 1924–1926.
- 6 Kornstein MJ, deBlois GG, Williams ME. Unusual biclonal plasma cell dyscrasia with crystal-like inclusions producing colonic tumors (plasma cell polyposis) and terminating in T-cell lymphoma. *Arch Pathol Lab Med* 1992; **116**: 176–179.
- 7 Lee A, Skelly ME, Kingma DW, Medeiros LJ. B-cell chronic lymphocytic leukemia followed by high grade T-cell lymphoma. *Am J Clin Pathol* 1995; **103**: 348–352.
- 8 Klein A, Manor Y, Abed S *et al*. B-cell malignancy after low grade T-cell lymphoma. *Cancer* 1994; **74**: 164–167.
- 9 Medeiros LJ, Stetler-Stevenson MA. Composite B-cell and T-cell lymphoma: coincidental occurrence or related neoplasms. *Am J Clin Pathol* 1992; **918**: 387–389.
- 10 Tucker MA, Coleman NC, Cox RS, Varghese A, Rosenberg SA. Risk of second cancers after treatment for Hodgkin's disease. *N Engl J Med* 1988; **318**: 76–81.
- 11 Coiffier B, Brousse N, Peuchmaur M *et al*. Peripheral T-cell lymphomas have a worse prognosis than B-cell lymphomas: a prospective study of 361 immunophenotyped patients treated with the LNH-84 regimen. *Ann Oncol* 1990; **1**: 45–50.

H-C Kau^{1,3}, H-C Ho^{2,3}, S-C Kao^{2,3}, C-F Yang⁴,
W-M Hsu^{2,3} and C-C Tsai^{2,3}

Department of Ophthalmology,
Veterans Hospital
Taoyuan, Taiwan

²Department of Ophthalmology,
Taipei Veterans General Hospital,
Taipei, Taiwan

³Department of Ophthalmology,
National Yang-Ming University, Taiwan

⁴Department of Pathology
Taipei Veterans General Hospital,
Taipei, Taiwan

Correspondence: C-C Tsai, MD
Department of Ophthalmology,
Taipei Veterans General Hospital,
No. 201 Sec 2, Shih-Pai Road,
Taipei, Taiwan
Tel: 886–2-28757325
Fax: 886–2-25551303
E-mail: cctsai@vghtpe.gov.tw

Sir,

Squamous cell carcinoma of the eyelid in a renal transplant patient

Eye (2002) **16**, 796–798. doi:10.1038/sj.eye.6700213

Immunosuppressive therapy following organ transplant surgery is known to significantly increase the incidence of cutaneous squamous cell carcinoma (SCC).^{1–5} One Dutch study⁶ found the incidence of SCC to be 250 times greater than that of the general population and that the risk increased with the duration of immunosuppression. In their study approximately 7% of transplant patients had developed a SCC after 10 years of treatment, this figure increased to 35% after 20 years.⁶ SCC in immunosuppressed patients most commonly affects the sun-exposed areas of the body and tends to be more aggressive than those lesions in immunocompetent individuals.^{2–5} We report the case of a renal transplant patient who developed an aggressive SCC on the right upper eyelid.

Case report

A 35-year-old renal transplant patient was referred to our eye department with a large lesion affecting the right upper eyelid (Figure 1). The lesion had developed rapidly over the previous 8 weeks, reaching approximately 25 mm in size. An incisional biopsy prior to referral, reported the lesion to be a squamous



Figure 1 The large squamous cell carcinoma of the right upper eyelid.

cell carcinoma. There were no other lid or skin lesions at presentation and no previous history of skin cancer.

The patient had undergone renal transplant surgery 12 years prior to presentation and was on an immunosuppressive regime of 75 mg of azothiopine and 100 mg of cyclosporin. Other medication consisted of warfarin as prophylaxis against recurrent deep vein thrombosis and pulmonary emboli, which she had suffered from in the past, and also hydralazine and atenolol to control her blood pressure. Prophylactic trimethoprim was taken daily to prevent urinary tract infections.

An urgent excisional biopsy of the lid lesion was performed. Histology confirmed this to be a squamous cell carcinoma with complete clearance. The right upper eyelid was reconstructed using a Cutler–Beard procedure, involving the grafting of free auricular cartilage and a lower eyelid skin, muscle and conjunctiva graft (Figure 2).



Figure 2 The right upper eyelid following reconstruction.

Discussion

In an immunocompetent individual the incidence of squamous cell carcinoma (SCC) in the periocular region accounts for approximately 9% of all malignant eyelid lesions, with the lower eyelid being more frequently affected than the upper lid.⁷ Systemic immunosuppression increases the incidence of cutaneous SCC, with lesions tending to occur in large numbers mainly over sun-exposed areas, such as the head and hands.^{4,5} Aggressive SCC of the eyelid in an immunosuppressed patient is however an uncommon occurrence, with only three previous reported cases in the literature,^{8,9} all of which involved the lower lid.

The growth of SCC in immunosuppressed transplant patients is usually rapid and can be life threatening when there is marked local tissue invasion and regional lymph node metastasis.^{2,5} Treatment is often difficult and recurrence common following excision.^{3–5}

Immunosuppressive drugs modify the immune response to prevent graft rejection, in doing so however, they predispose patients to cancer, since the host immune system becomes less effective in eliminating oncogenic viruses, and deleting potentially malignant cell lines.^{1,8,9} The most common cancers seen in organ transplant patients are the skin cancers, particularly SCC, which occur approximately 250 times more frequently than in the general population.⁶ The ratio of SCC to BCC is altered to such an extent, that the incidence of SCCs outnumber BCCs by a ratio of between 2:1³ to 3.5:1¹⁰ in transplant recipients compared with a ratio of between approximately 1:4³ to 1:10¹¹ in immunocompetent individuals, where BCC is the more common.

Ultra-violet (UV) light exposure is thought to play a key role in SCC development, by causing damage to keratinocyte DNA⁵ leading to loss of a cell's growth control and results in tumour formation. Damage may be exacerbated by the photo-oxidative effects of azothioprine metabolites, whilst cyclosporin may increase the risk of skin cancer by photo-sensitising the skin.^{2,5}

Human papilloma virus (HPV) DNA is found in many premalignant and malignant skin lesions and is thought to play a role in SCC formation. The exact role HPV plays is however unknown.²

Recently retinoid drugs, which are commonly used to treat acne and psoriasis,³ have been used in an attempt to reduce the incidence of SCC in immunosuppressed individuals. They seem to offer some protection against the formation of new lesions, however once the medication is stopped the benefits appear to be lost.³ These drugs may play a role in the future management of immunosuppressed patients.

Clinicians and patients should be aware that immunosuppression significantly increases risk of skin cancer, and that any suspicious skin lesion should undergo urgent excision biopsy, in an attempt to prevent development and growth of these aggressive lesions. Patients should be advised to take sensible precautions against UV light exposure, such as wearing sun blocking creams and hats, in an attempt to reduce the risks of developing skin carcinoma.

References

- Westburg SP, Stone OJ. Multiple cutaneous squamous cell carcinomas during immunosuppressive therapy. *Arch Dermatol* 1973; **107**: 893–895.
- Stockfleth E, Ulrich C, Meyer T, Arndt R, Christophers E. Skin diseases following organ transplantation—risk factors and new therapeutic approaches. *Transpl Proc* 2001; **33**: 1848–1853.
- Digiovanna JJ. Post-transplantation skin cancer: scope of the problem, management, and role for systemic retinoid chemoprevention. *Transpl Proc* 1998; **30**: 2771–2775.
- Euvrard S, Kanitakis C, Pouteill-Noble F, Disant G, Finaz de Villaine J, Claudy A et al. Aggressive squamous cell carcinomas in organ transplant recipients. *Transpl Proc* 1995; **27**: 1767–1768.
- Liddington M, Richardson AJ, Higgins RM, Endre ZH, Venning VA, Murie JA, Morris PJ. Skin cancer in renal transplant recipients. *Br J Surg* 1989; **76**: 1002–1005.
- Hartevelt MM, Bavinck JN, Kootte AM, Vermeer BJ, Vandenbroucke JP. Incidence of skin cancer after renal transplant in the Netherlands. *Transplantation* 1990; **49**: 506–509.
- Reifler DM, Hornblass A. Squamous cell carcinoma of the eyelid. *Surv Ophthalmol* 1986; **30**: 349–363.
- Rao NA, Dunn SA, Romero JL, Stout W. Bilateral carcinomas of the eyelid. *Am J Ophthalmol* 1986; **101**: 480–482.
- Stewart WB, Nicholson DH, Tenzel RR, Spencer WH. Eyelid tumours and renal transplantation. *Arch Ophthalmol* 1980; **98**: 1771–1772.
- Bernstein SC, Lim KK, Brodland DG, Heidelberg KA. The many faces of squamous cell carcinoma. *Dermatol Surg* 1996; **22**: 243–254.
- Henkind P, Freidman A. Cancer of the lids and ocular adnexia. *Cancer of the Skin*. WB Saunders: Philadelphia, 1976, pp 1345–1371.

CM Knapp, JHY Tan and R Sampath

Department of Ophthalmology
Leicester Royal Infirmary
Leicester, UK

Correspondence:
CM Knapp
Department of Ophthalmology
Leicester Royal Infirmary
Infirmary Square
Leicester LE1 5WW, UK

Tel: 0116 2541414

Fax: 0116 2585927

E-mail: christopher_knapp@lineone.net

Sir,

Surgical management of anterior lenticonus in Alport's syndrome

Eye (2002) **16**, 798–800. doi:10.1038/sj.eye.6700218

Alport's syndrome is a rare basement membrane disorder characterized by progressive hereditary nephritis, sensorineural hearing loss and ocular abnormalities. The inheritance is predominantly X-linked (85%), although it can be autosomal recessive (10%) or autosomal dominant (5%).¹ Homozygote males are usually severely affected but females tend to have a mild form, often with only microscopic haematuria and normal renal function.¹ The ocular abnormalities in the X-linked form are characteristically a dot-and-fleck retinopathy, less often anterior lenticonus and rarely a posterior polymorphous corneal dystrophy.^{1,2} Additional ocular abnormalities are not uncommon, including cataracts, posterior lenticonus and retinal detachment.²

This case report of a female patient has several unusual features. There was no positive family history, renal function was severely affected and prior to developing visual symptoms, the cause of renal failure was unclear. In addition the ocular features included a unilateral dot-and-fleck maculopathy and bilateral anterior lenticonus, known to occur in approximately 85% and 25% of affected males respectively, but both rarely reported in females with the syndrome.¹

Case report

A 40-year-old lady was referred by her optometrist with bilateral visual failure and a large myopic shift over a 2-week period. Within this period her refractive status had changed from $-7.75\text{DS} / -1.25\text{DC} \times 105$ right eye, -6.75DS left eye, to $-10.00\text{DS} / -1.75\text{DC} \times 115$ right eye, $-8.25\text{DS} / -0.50\text{DC} \times 30$ left eye.

The patient had no significant past ocular history other than wearing spectacles to correct myopia for many years. Her past medical history however, included bilateral hearing loss for which she wore hearing aids and a previous renal transplant (1994) for renal failure secondary to a 'nephritis' of unknown aetiology. She was on long-term immunosuppressive therapy, including oral steroids. There was no family history of ocular or systemic conditions.

On examination the Snellen visual acuity with