

EYELID SKIN CANCERS

Australians hold the dubious title of suffering more skin cancers than any other country on earth, due to our exposure to UV light and typically European skin tones. The direct relationship to sun exposure is borne out by the greatest number of patients with skin malignancies presenting in Queensland, followed by NSW then Victoria and Tasmania; this indicates a direct relationship to latitude. **Dr. Raf Ghabrial**

Skin cancers are frequently found on the face, and commonly occur on the periorbital regions. The lower eyelids are most commonly affected, followed by the medial canthus, upper eyelid and lateral canthus. These lesions are also described as skin malignancies, sun spots and sun cancers (carcinoma).

Basal Cell Carcinoma

There are many different types of skin cancers, the most common of which is Basal cell carcinoma (BCC), representing 90 to 95 per cent of all eyelid cancers. These lesions do not usually penetrate beneath the superficial skin and therefore rarely spread through the body. Damage is caused by local spread and enlargement through the adjacent tissues, which around the eyelids may result in distortion and ectropion (Figure 1).

BCC's can present as nodular (Figure 2), superficial spreading or morpheic (indistinct margins) lesions. These latter lesions can be the most troublesome as the boundaries may be difficult to identify; they are typically more destructive and invasive. If left unchecked, patients may suffer from visual problems from destruction of the eyelids, lacrimal system and other orbital contents (Figure 3). In this scenario, total removal of the lesion and orbital contents may be required, a procedure known as exenteration. A recent study in Australia identified skin malignancy as the most common indication for this procedure, quite different from the series published in the Northern Hemisphere.

Squamous Cell Carcinoma

Less commonly sun damage may result in Squamous cell carcinoma (SCC) arising

from the more superficial layers of the skin. These lesions typically start as superficial scaling (Fig 4), then progress beneath the skin layers to invade deeply. Once the skin has been penetrated they may spread to other parts of the body such as lymph nodes and other organs (including the lungs, liver and brain).

Malignant Melanoma

Malignant melanoma (MM) is thankfully rare around the eyelids. These lesions are usually pigmented and may commence from benign pigmented spots (freckles, naevi or "moles") or *de novo*. Mm is often extremely invasive and can spread rapidly in unpredictable patterns. If not treated early destructive surgery and death may ensue.

Figure 5 shows a neglected melanoma of the right lower eyelid which has grown over three months.

Benign Lesions

Approximately three quarters of eyelid tumours are benign.

Perhaps the most common eyelid lesion is the chalazion, which is usually well recognised as it arises from the meibomian glands of the tarsoconjunctival surface rather than the skin. Nonetheless experienced practitioners often misdiagnose these lesions. If in doubt referral is always required. Figure 6 shows an everted eyelid with typical gelatinous swelling



Figure 1

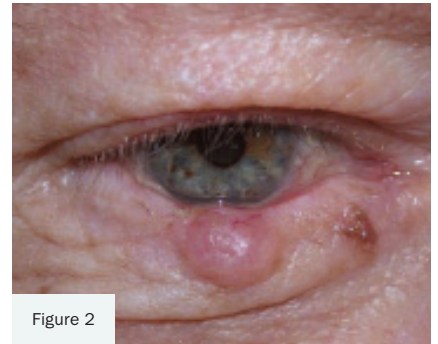


Figure 2



Figure 3



Figure 4

CASE STUDY

Mr R.F. is a retired cane cutter who presents with a lesion of his left lower eyelid. This has been present for 15 months and has grown slowly. He gives a history of recurrent bleeding with minor trauma (“when I rub it I knock the top off”) but did not seek attention as the eyelid was painless. His diagnosis was that of a “pig sty”! The patient has a history of previous sun spots treated

by his GP and a larger lesion removed from his arm by a dermatologist. Examination reveals an eyelid devoid of lashes along its length, indicating involvement of the entire lower eyelid (Fig 8). Removal was undertaken by frozen section leaving the entire lower eyelid absent. After clearance reconstruction was undertaken using a combination of a skin graft from the post auricular region and a lid-sharing procedure.

“If any lesion changes in size or has any bleeding then it should be viewed with suspicion. Early referral is essential to identify and treat these lesions before damage occurs.”

Common benign lesions include papillomas, often emanating from the eyelid margin (Figure 7). Even more common are seborrheic keratoses (basal cell papillomas or “warts”).

Naevi (“moles”) are often not pigmented and classically arise from the eyelid margin. The tell-tale sign

here is the presence of eyelashes; where there is an absence of eyelashes, then suspicion should be aroused for skin malignancy.

What to Look For

There is an enormous variation in lesions that may present around the eyelids,

Figure 1. Ulcerating bcc beneath the right lower eyelid leading to ectropion resulting in irritation, infection and watering of the eye.

Figure 2. Nodular BCC. Note elevated lesion with fine surface blood vessels (telangiectasia).

Figure 3. Extensive morphoeic BCC pulling lower and upper eyelids, extending into the orbit.

Exenteration of the entire orbital contents was performed to eliminate the lesion.

Figure 4. Early SCC. Scaling indicates SCC in situ (Bowen’s disease) with early ectropion. Note loss of eyelashes as sign indicating malignancy.

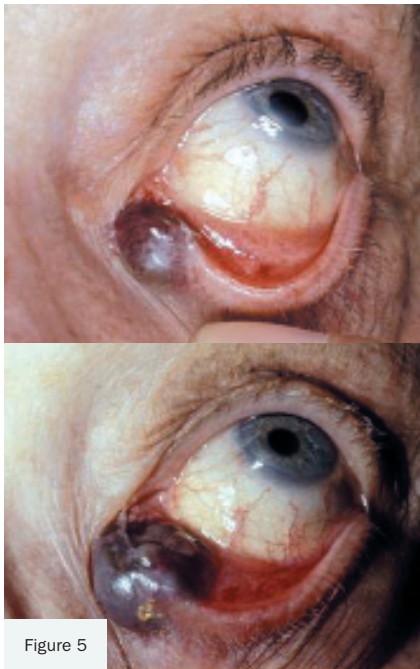


Figure 5



Figure 6

Figure 5. Malignant melanoma left unchecked over three months reveals rapid growth.

Figure 6. Everted eyelid with typical gelatinous chalazion.

TABLE OF EYELIDS SKIN LESIONS (BY TISSUE OF ORIGIN)

BENIGN	PREMALIGNANT	MALIGNANT
Papilloma	Actinic Keratosis	SCC
Seborrhoeic Keratosis	Bowen's disease	BCC
Keratoacanthoma	Lentigo Maligna	Melanoma
Naevus		Sebaceous carcinoma
Sweat gland		Sweat gland
Hair follicle		Secondary carcinoma
Vascular		
Neural		

Reference:

The Oxford Textbook of Ophthalmology, Ghabrial and Potts, Oxford University Press, pub 1999

most commonly representing benign growths (see Table 1). If any lesion changes in size or has any bleeding then it should be viewed with suspicion. Early referral is essential to identify and treat these lesions before damage occurs. Skin cancers may present as elevated nodules, depressions or vague skin thickening. Any non-healing sore should be viewed with deep suspicion.

Treatment

Once referral is undertaken then thorough assessment is required.

The history is important as most sun cancers are painless and grow over months. A high index of suspicion is undertaken with patients who have a background of skin malignancy or sun-damaged features. Up to 60 per cent of patients with skin malignancy have similar lesions elsewhere.

Lesions may appear as ulceration, thickening of the skin or scaling often with surrounding telangiectasia (dilated

blood vessels). If a lesion is atypical biopsy is required to confirm the diagnosis. Typical lesions are often identified and surgically treated. In this scenario the patient can avoid two procedures when the clinical diagnosis is certain.

Surgery aims at complete removal of the tumour. Incomplete excision often results in aggressive re-growth and difficult intervention at a later date. Recurrence rates vary from 2 to 20 per cent (over five years) depending upon the method of excision utilised. Alternatives such as local chemical or radiation treatment remain a valid alternative, but frequently result in severe damage of the surrounding tissues. As a result these techniques are rarely employed except in extreme cases (e.g. very elderly frail patients unable to tolerate surgery).

Surgical excision can be performed with microscopic control of the

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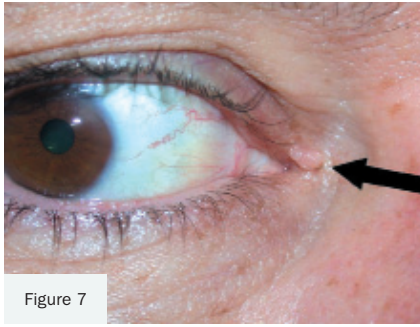


Figure 7

PREVENTION

- Sun protection
- Sunglasses
- Hat
- Physical blocker such as zinc oxide
- Avoid midday sun
- Early detection



Figure 8

“Reconstruction often includes a combination of skin and conjunctival flaps and grafts. Skin grafts may be harvested from other eyelids, post auricular skin (behind the ear) or the inner arm.”

margins to ensure complete removal in the case of large or indistinct tumours adjacent to vital structures. One such method is with frozen section control, where a pathologist is available at surgery to microscopically examine excised specimens; when microscopic examination shows no further tumour reconstruction can be safely undertaken.

Another method employs a technique named Mohs'surgery where a dermatologist completely removes the tumour, microscopically clearing the lesion.

After tumour removal reconstruction of the tissue defect is undertaken. A small lesion can often be removed with minimal impact after reconstruction.

The periorbital tissues require specialised skills to repair if there is a large defect. Challenges specific to the periocular region arise due to the three-dimensional nature of the region and the specialised function for the eye.

Reconstruction often includes a combination of skin and conjunctival flaps and grafts. Skin grafts may be harvested from other eyelids, post auricular skin (behind the ear) or the inner arm. Conjunctival defects may be filled with tissue from the mouth, nose or ear region. Most frequently a complex combination of techniques is utilised to suit the defect present. The aim is to achieve good eyelid function and cosmesis. ■

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Figure 7. Arrow indicates small begin papilloma at medial commissure.

Figure 8. Eyelid devoid of lashes along its length indicates involvement of the entire lower eyelid.