Common and clinically important eyelid lesions

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Eyelid lesions range from the benign to cancerous. Most, fortunately, are benign but correct identification can be difficult, with some of the carcinomas masquerading as chalazia.

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Eyelid lesions can disfigure, disable and kill, although most are innocent. This article outlines an approach to eyelid lesions.

Recognition of lesions that occur around the eyes requires a depth of clinical experience. Even with good experience, there is a significant rate of incorrect identification of significant lesions.[1-3] A delay in management of nonmelanoma skin cancer may have impacts on the lesion size and the difficulty of adequate clearance and satisfactory reconstruction (i.e. the closure of the defect with minimal long-term impact on visual function or aesthetic concerns). A delay may also lead to orbital or intracranial invasion, with loss of the eye to achieve clearance of disease in the first instance and possible loss of life in the second instance. Metastasis may occur in melanoma, rarely in common nonmelanoma tumours (e.g. squamous cell carcinoma; SCC), and relatively commonly in rare nonmelanoma tumours.[4-6] This may lead to reduced life expectancy.

Putting this into perspective, we know that eyelid lesions that threaten the eye or life are in a minority. A sensible approach that acknowledges these facts is needed.

PRESENTATION

Some people have a marked personal or family history of cutaneous neoplasia and may attend their GP for screening of all areas of their skin, as may also others who are aware of the risks of cutaneous neoplasia.[7] Not uncommonly a presentation for an eyelid lesion is motivated by a desire to be rid of an unsightly or otherwise troublesome lesion.

Inflamed or infected eyelid lesions classically present with pain, erythema, swelling and loss of function. Some lid cysts will temporarily affect vision by creating refractive error (astigmatism) due to corneal compression.

The GP has to consider how good an observer the patient (or friend or partner) is likely to be before making a judgement on how long a lesion may have been present.

TYPES OF EYELID LESIONS

Lesions of the eyelids may be classified by presentation, up to a point. Acute onset of pain, erythema, swelling and possible loss of function indicate inflammation, possibly infection related. Presentation with symptoms of inflammation or infection makes a hordeolum most likely, whether internal (a chalazion, also known as a tarsal cyst) or external (a stye, also known as a follicular abscess or microfuruncle). Discharge may occur from a cyst or abscess, including bleeding.

Recurrent scabbing or bleeding of a nonhealing lesion leads to the suspicion

COMMON AND CLINICALLY IMPORTANT EYELID LESIONS

Benign skin lesions

- Acrochordon (skin tag)
- Apocrine cyst (cyst of Zeis)
- Chalazion (posterior hordeolum)
- Epidermoid cyst
- Follicular microabscess (stye or anterior hordeolum)
- Hidradenoma (cyst of Moll)
- Milia
- Naevus
- Seborrhoeic keratosis (senile wart or basal cell papilloma)
- Squamous papilloma
- Syringoma (eccrine adenoma)
- Trichoepithelioma

Primary nonmelanoma skin cancer*

- Solar keratosis (precancerous)
- Basal cell carcinoma
- Squamous cell carcinoma
- Sebaceous cell carcinoma (chalazion masquerade)
- Merkel cell carcinoma (chalazion masquerade)
- Lymphoma, leukaemia
- Metastases

Melanoma skin cancer*

- Intradermal (melanoma in situ)
- Invasive melanoma

* In order of incidence.

of neoplasia, particularly if this is over months. The failure to resolve of a supposed benign cyst may lead to the same suspicion.

A lesion that scabs and bleeds before 'dropping off' may well have been a pedunculated papilloma. However, it may be a slow growing and necrotising neoplastic lesion.

A stinging or burning sensation may be associated particularly with squamous neoplasia. The length of time a lesion has been present may help in deciding its likely cause. Patients at high risk of skin cancer include those who are immunosuppressed, whether because of use of certain medications or due to abnormal immune surveillance, as in chronic leukaemia or lymphomas. However, many people in Australia have skin types that are particularly susceptible to sun damage, and will have been significantly sun exposed and therefore be at high risk of developing skin cancers.

The more common and clinically important lesions of the eyelids are listed in the box on this page, and some are illustrated in Figures 1 to 5.

UNMISSABLE SYMPTOMS AND FEATURES

When a patient presents with an eyelid lesion, ask about the lesion and its history, covering the topics indicated in the questions listed below.

- How long has the lesion been present?
- Is it enlarging, static or shrinking?
- Has there been stinging or pain (at any stage)?
- Has there been bleeding?
- Has there been ulceration and healing?
- Has anything similar occurred before in the location or elsewhere?
- Has there been prior surgery in the vicinity?
- Is there a history of styes, acne rosacea or lid surgery?
- Is there a history of ultraviolet light exposure, skin cancers, immuno - suppression (including blood dyscrasia), radiotherapy or arsenic exposure?

When examining the patient, look for the following:

- localised loss of sensation
- architectural change
- lash loss
- dysaesthesia
- lymphadenopathy.

With the different lesion types, specifically identify:

- for the pigmented lesion: thickening, ulceration, variation in pigmentation, recency, any change in old lesion
- for the squamous lesion (SCC): hyperkeratosis, ulceration, dysaesthesia
- for the chalazion masquerader: persisting lesion, not cystic and cannot be curetted
- for the progressive scar (basal cell carcinoma [BCC]): cicatricial ectropion, trichiasis, possible notching of margin
- for the nodular lesion (BCC): nontransilluminating unless collision lesion, glossy (pearly), hard on palpation, loss of lashes, possible telangiectasis, usually pale but may pigment.

FEATURES OF BENIGN LESIONS

Benign eyelid lesions vary in appearances and presentation and there is no simple 'tick list' of benign features. Although many benign lesions will be relatively symmetrical and will not cause architectural changes in the tissue, papillomas are often somewhat asymmetrical and chalazia can cause tissue destruction. The DermNetNZ website (www.dermnetnz.org) has many useful images.[6]

INVESTIGATIONS

The gold standard investigation for eyelid lesions is incisional biopsy, and the results will guide the need for further treatment. If the diagnosis is clinically obvious, however, then proceeding to primary excisional biopsy and reconstruction may prove justified. Where there is any room for doubt, a simple shave or small (2 or 3 mm) punch biopsy is advisable. Studies show that clinical assessment of lesions is not fully accurate. If the outcome of an excision biopsy will be a significant reconstruction then an incisional biopsy should be used first. Another argument for primary incisional biopsy is that any amount of eyelid is not surplus to requirements, unless the lid is truly lax already.

Figure 1. Apocrine cyst (cyst of Zeis; a yellowish oil-containing cyst) on the upper eyelid, and hidradenoma (cyst of Moll; a translucent sweat-containing cyst) on the lower eyelid.

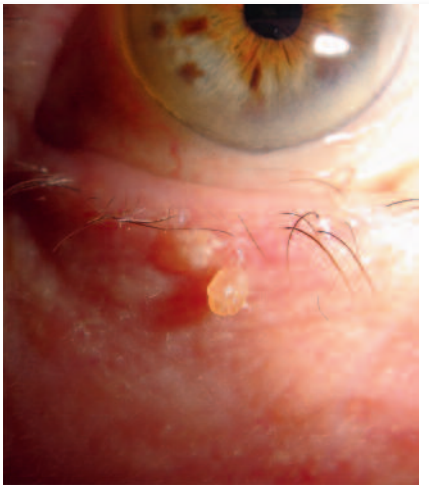


Figure 2. Papilloma, with severe blepharitis, lid notching and trichiasis.

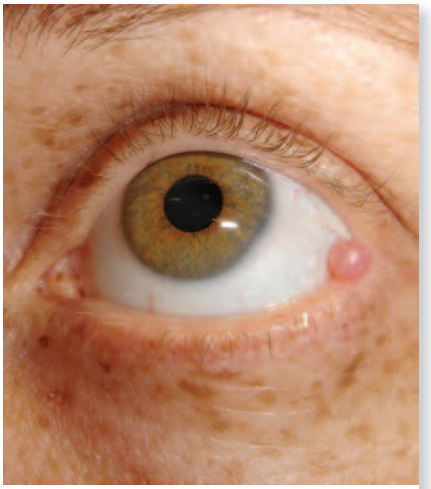
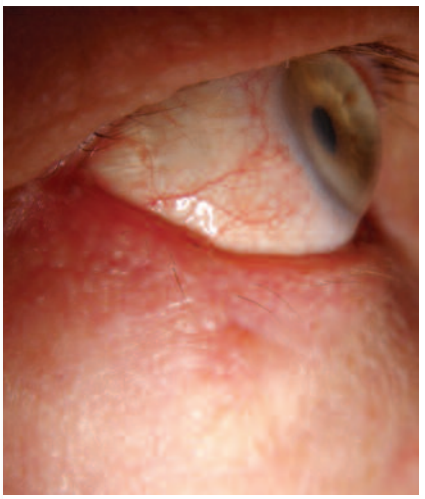
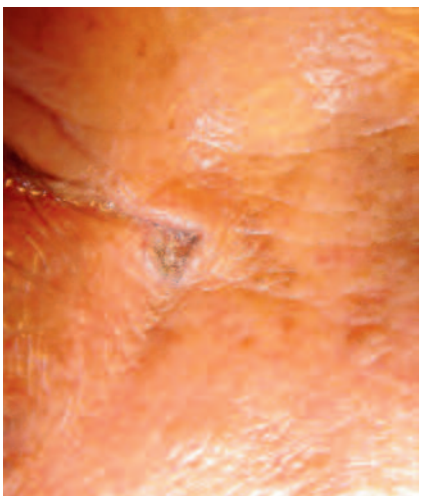


Figure 3. Eyelid margin naevus.





Figures 4a and b. Basal cell carcinoma (BCC). a (above left). Cicatrising diffuse BCC. b (above centre). Pigmented BCC.

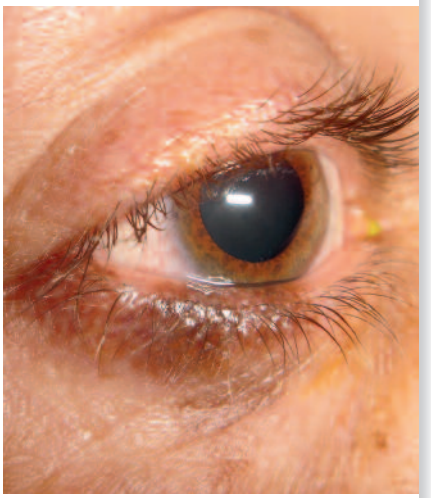


Figure 5. Melanoma in situ, extending to the conjunctival surface.

In carrying out an incisional biopsy, the practitioner needs to avoid inadequate biopsy, lid notch formation, scarring that may cause trichiasis, and damage to the lacrimal drainage system. Prior photographic documentation of small lesions is medicolegally advisable, as it may be hard to locate the biopsy site at a subsequent clearance surgery. Small samples must be handled with care to avoid crush artefact.

SPECIALIST REFERRAL AND INVOLVEMENT

A specialist referral is necessary for a clinical opinion and biopsy where the referring GP has any doubts about how to proceed. If the GP is confident in carrying out small eyelid biopsies, specialist involvement is only required when the need for formal clearance surgery is confirmed by the pathology report. The referral will then include details of the lesion site, photographs and pathology reports.

Traditional management of excision with margin estimation has a five-year recurrence rate of 4 to 10%, depending on the precise method used. Worldwide, Mohs micrographic surgery has a five-year recurrence rate of about 2%, but the Australian Mohs database reported a lower rate with no recurrences in the group where five-year follow up was

available.[8] I prefer to reconstruct after Mohs micrographic clearance has been performed. Eyelid reconstruction often involves fine sutures of 6/0 or 7/0 gauge, and the specialist is likely to wish to remove these in their rooms. I usually see the patients myself within the first week or two and then again for the late review at around three months' postoperatively. Shared care may be appropriate for some patients in the postoperative period.

Simple anterior hordeolae may be decompressed by epilation of the associated eyelash, followed by antibiotic application. Chalazion incision and curettage is reasonably simple to perform in general practice with the appropriate equipment to hand. Many instructional videos for outpatient procedures are freely available online (e.g. YouTube™).

FOLLOW UP

Patients with identified solar damage of the eyes need follow up. Many plastic and reconstructive surgeons will defer to the patient's GP or dermatologist for this. Follow-up reviews may be yearly if risk is thought to be low, but are often six-monthly in patients in whom high-risk skin lesions have been identified in the past.

CONCLUSION

In the future, it will probably be possible to identify tumours and detect their margins using derivations of current research techniques such as Raman spectroscopy, fluorescent confocal microscopy and coherence tomography. For now, however, we are limited to the application of our clinical expertise both in lesion recognition and in the subsequent clinical decision-making process.

Eyelid tumours demand a cautious approach because of the limitations inherent in satisfactory eyelid reconstructive options, the impact of unsatisfactory reconstruction on the eye and vision, and the potential impact on health and life expectancy in cases involving the less common but serious lesions. Small tissue volume incisional biopsy assists in decision-making and in achieving good outcomes. MT

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