

# The Eye-Q Newsletter

## Eyelid and Periocular Skin Cancer

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### Introduction

Skin cancer is the most commonly occurring neoplasm among adults. Two thirds of these are *basal cell carcinomas*, followed in frequency by *squamous cell carcinoma*, *melanoma*, and *sebaceous cell carcinoma*. The head and neck (sun-exposed areas) are common sites for skin cancer to occur. Eyelid skin cancer occurs most often on the lower lid but may be found anywhere on the eyelid margin, corners of the eyelid, eyebrow skin or adjacent areas of the face (periocular).

Skin cancers involving the eyelid usually appear as a painless elevation or nodule that may occasionally itch. The smooth eyelid margin contour may be distorted. The eyelashes may be misdirected or missing in places (maderosis). There may be ulceration of the involved area, bleeding, crusting and/or distortion of the normal skin structure. Any new or long-standing lesion that is growing or changing in appearance or color should be examined closely. If there is any suspicion a biopsy is recommended to confirm the diagnosis of skin cancer.

### Causes of Skin Cancer

Excessive exposure to sunlight is the single most important factor associated with skin cancer on the face, eyelids and arms. Fair-skinned people develop skin cancers far more frequently than dark-skinned people do. Skin cancer may also be hereditary (e.g. Basal Cell Nevus Syndrome). Exposure to chemical carcinogens (e.g. Arsenic) or ionizing radiation may predispose one to developing skin cancer.

### Types of Cancers

**Basal Cell Carcinoma** is the most common type of skin cancer. Typically, it has its onset in the 4<sup>th</sup> to 6<sup>th</sup> decades but may be earlier or later. It generally starts as a raised nodular lesion with a smooth clear pearly boarder. There are usually fine telangiectatic vessels on its surface and central ulceration. Basal cells grow slowly and superficially. They do not metastasize like other cancers, but, with time, if not completely removed, they will erode the surrounding tissue. Occasionally, basal cell skin cancers may be pigmented. They may also have poorly defined boarders (morpheaform type) or be multicentric in origin making them harder to remove.

**Squamous Cell Carcinoma** is the second most common skin cancer. It too may present in the 4<sup>th</sup> to 5<sup>th</sup> decade as a new growth, slowly increasing in size. The early intra-epithelial is referred to as solar or actinic keratosis (sun-damaged skin). With time, full thickness epidermis is replaced after which invasion into the dermis occurs. It tends to have a flaky superficial crust associated with it but may also appear ulcerated. The boarders are usually less well defined than a basal cell. Although squamous cell is less common than basal cell, it is more aggressive. Since it is less well

defined, it can be more difficult to completely remove. Squamous cells will destroy tissue locally and *may* metastasize if left untreated.

**Melanoma** in the eyelid area is very uncommon. When it occurs, it generally appears in the 4<sup>th</sup> to 7<sup>th</sup> decade as a pigmented growth that may initially look like an aging spot, sun spot or freckle. If it is melanoma it will slowly increase in size and become darker. When examining any acquired pigmented spot, be aware that benign lesions show uniformity of color, symmetry and border. Any history of change ( color, size, surface characteristics, shape ) on a pre-existing nevus or in any newly acquired pigmented lesion especially if it is over 10 mm in diameter should arouse suspicion and a prompt biopsy is in order. Melanoma is an aggressive tumor and *may* metastasize.

**Sebaceous Cell Carcinoma** is a cancer involving the oil glands, the same glands that give rise to styes. Sebaceous gland carcinoma is very uncommon. It tends to occur in the 6<sup>th</sup> to 7<sup>th</sup> decade and more commonly involves the upper lid. It may present as a recurring chalazion and certainly, any aging patient (>60) having a recurrent or persistent chalazion in the same position, resistant to the usual treatment, should be suspect for this. Sebaceous cell adenocarcinoma is more aggressive than basal cell or squamous cell carcinoma and may metastasize. It may have a multicentric origin or may simply creep along the skin ( pagetoid spread) causing redness, flakiness, and a blepharitis-like picture. One should keep this entity in mind when dealing with a persistent blepharitis in an elderly individual not responding to the usual lid hygiene/ antibiotic ointment routine, especially if it is unilateral.

## **Treatment of Skin Cancer**

Any suspicious growth in the eyelid area requires biopsy, including new or old growths that are changing, disrupting the normal eyelid contour, causing lash loss, increasing in size and/or causing irritation. Long standing or new onset pigmented spots that have recently changed in appearance should also be viewed with suspicion and biopsied.

There are several forms of treatment for skin cancer which include

- Curettage
- Liquid nitrogen
- Cryo-surgery
- Radiation
- Excisional surgery

Most of them have a high success rate (over 90%) with basal cell carcinoma. The **highest** overall success rate in the eyelid area however, comes with **surgical removal** (over 98%). Radiation in the eyelid has been suggested by some but can be quite dangerous as it may lead to atrophy of tissue, loss of lashes, dry eye, corneal ulceration and even visual loss. It generally reserved only for the very debilitated patient or occasionally in the large tumors that are poorly defined and not amenable to surgery.

Complete removal of the tumor is important to minimize the possibility of recurrence, which can be even more difficult to manage. The surgeon may remove the tumor and have a pathologist check the tissue margins (frozen section) to be sure the tumor is completely removed. Alternatively, a special technique called Moh's surgery, in which successive layers of tissue are examined microscopically in all directions until no further tumor is identified, is used.

Once the tumor has been completely removed, reconstructive surgery is required to return the area to a normal appearance and function. Many excellent techniques are available to reconstruct almost any surgical defect. The operation will be specifically tailored to the defect that is present following removal of the tumor. A skin graft from one of the other eyelids or from another area of the body may be required. Similarly the firm part of the upper lid (tarsus) or a portion of the smooth tissue lining the mouth (hard palate) may be required to repair the lid defect. Ear cartilage may also be used. Regardless of the technique, the goals remain the same:

- 1. Protect the eye and preserve vision**
- 2. Reconstruct the eyelid so that it functions properly**
- 3. Obtain a satisfactory cosmetic appearance**

Many forms of therapy for eyelid skin cancer will leave a scar. However, every effort is made to minimize scarring to obtain the most acceptable cosmetic result. Sometimes touch up surgeries are required to do this. Following the initial surgery, the healing process may take six months to a year for complete healing. Regular follow-up is vital following surgery to be sure the skin cancer does not recur. Should any suspicion arise a biopsy may be necessary.

Skin cancers of the eyelid are generally treated by Ophthalmic Plastic and Reconstructive Surgeons. These are Ophthalmologists with special training in diseases and conditions affecting the eyelids, orbit and adjacent facial structures. The eyelid plays an essential role in protecting and lubricating the eyeball. If the lids are not precisely and meticulously reconstructed so they function normally, the tear film will be upset, the eye may become uncomfortable and the corneal integrity may become compromised leading to ulceration.