Why Oculoplastics?

What do you think of when you hear “Oculoplastics”?

- Before I began practicing, I thought it was all blephs and botox
- As it turns out, almost half of my practice involves the diagnosis and management of eyelid and facial lesions
Why Oculoplastics?

The unique anatomy and physiology of the eyelids provide a unique diagnostic and treatment challenge.

Background

The good news
- the large majority of eyelid tumors are benign

The bad news
- Patient fear
  - Patients frequently don’t want to acknowledge new lesions
- Doctor denial
  - Tumors that are malignant often masquerade as benign lesions or conditions
  - No one wants to give bad news. We want to assume the best for our patients.

Objective

To raise our collective level of suspicion for lesions of the eyelids and face.

Background

- Basal cell carcinoma is the most common eyelid malignancy
- Other common malignant tumors: squamous cell carcinoma, sebaceous cell carcinoma, and malignant melanoma
- A thorough knowledge of the clinical characteristics and behavior of these common malignancies is essential in caring for our patients.

Less Common Malignant Tumors

- Mucoepidermoid carcinoma
- Lymphoma
- Metastatic tumors
- Fibrosarcoma
- Merkel cell tumor
- Sweat gland carcinoma
- Malignant trichoepithelioma
- Kaposi sarcoma
- Aberrant lacrimal gland carcinoma
- Histology of skin cancer
Exam

- Complexion
- Size
- Color
- Lash loss
- Lid architecture
- Lymph nodes

Not all malignant eyelid tumors present as distinct or obvious lesions...

"Masquerade syndromes"

- Malignant eyelid tumors presenting as inflammatory processes
- Neoplastic lesions may invade tissue planes not readily visible

Pathophysiology

- Intraepithelial Spread
  - Examples: Conjunctival SCC, or Bowen's of the skin

Pathophysiology

- Subepithelial Spread
  - Examples: Morpheaform/sclerosing BCC or BCC with squamous differentiation

Pathophysiology

- Neurotropism
  - Examples: SCC and MM (desmoplastic variant)

- Facial numbness, pain, or paralysis may be presenting signs or indications of a recurrence
Pathophysiology

Pagetoid Spread (Multicentric Origination)

Basal Cell Carcinoma

BCC - Background

- 20% of all eyelid neoplasms
  - 90% of all malignant eyelid neoplasms
- Demographics:
  - Middle-aged, light complexion
  - Sun exposure (25% higher UV in Denver)
- Lower lid > medial canthus
- Spread by local invasion (almost exclusively)

BCC - Types

1. Noduloulcerative
2. Morpheaform
3. Superficial

BCC - Noduloulcerative

- Pale, elevated margins
- Nodular with telangiectatic vessels
- Necrotic, ulcerated center

BCC - Morpheaform

- Indistinct margins
- Smooth, leathery surface
- Extend for a considerable distance beyond their clinical margins
- Cicatization of surrounding tissues
BCC - Superficial

- Relatively rare on the face
- Slightly elevated, erythematous, scaly patches

BCC - Types

- Noduloulcerative
  - "Rodent ulcer"
  - Papule progressing to central depression, rolled edge

- Morpheaform
  - Scleroderma-like with roughness and contracture
  - Insidious with spread beyond clinical margins

- Superficial
  - Plaques for rough erythema
  - Usually multicentric

BCC - Spread

- No metastatic activity under normal circumstances
- Only local invasion
- Noduloulcerative type is demarcated by palisading of cells
- Morpheaform is not well-demarcated microscopically
- **Excise BCC under frozen-section control**
Squamous Cell Carcinoma

SCC - Background

- 2nd most common eyelid malignancy
- 10% of all eyelid malignancy

Demographics
- Older population
- Fair complexion, sun damage

- Intraepithelial spread or deep invasion with potential rare regional lymph node metastasis

SCC - Skin

- Can arise de novo or from preexisting lesion
  - Actinic keratosis or h/o XRT
- Typically found on the lower eyelid margin
- Bowens disease – solitary lesion, confined to epithelium (carcinoma in situ)
- Erythematous, elevated, and scaly
SCC - Conjunctival

- Unrelated to sun exposure
- Commonly misdiagnosed as conjunctivitis
- Higher incidence of metastatic disease if lesion extends into fornix
- Local spread via narrow cellular strands (not a uniform advancement of the entire border)

SCC - Cutaneous

- Older, fair complexion, with h/o sun exposure
- Appearance:
  - Rough, scaly patch +/- ulceration
  - Nodular plaque on margin
  - Chronic dermatitis
- May arise de novo or from keratosis
- More common LL, predilection for margin
- Regional metastasis rate 15-20%

SCC - Spread

- Intraepithelial and infiltrative deep
- Regional lymph node metastasis
- Excision with wide margins and frozen section
- Potential for enucleation or extenteration

SCC - Conjunctival

- Unrelated to sun exposure
- Appearance:
  - chronic conjunctivitis
  - Pigueculae or pterygium
- May invade the globe
- Higher incidence of metastasis with fornical involvement

Sebaceous Cell Carcinoma
Sebaceous Carcinoma - Background

- 3rd most common eyelid malignancy
- 1-2% of all eyelid malignancy
- Demographics:
  - Age >60
  - Fair complexion
  - Unrelated to sun exposure
- Pagetoid / multicentric spread

Sebaceous Carcinoma

- Upper lid >> lower lid
- Most commonly arises from meibomian gland
  - May arise from Zeiss, hair follicle, sebaceous
- Presents as benign inflammatory condition such as chalazion or chronic blepharitis
- Loss of eyelashes are typical

Sebaceous Carcinoma

- The rarity of this lesion and the fact that it presents as a benign-appearing inflammatory lesion requires a high index of suspicion to diagnosis this condition

Sebaceous Carcinoma

- 6th decade, fair complexion
- Arises from sebaceous glands (meibomian, zeiss, etc)
- more common in UL (often UL/LL, OU)
- Presents as blepharitis or chalazion
- Specimen must be sent fresh with special stain
- A positive result necessitates map bx OU
Sebaceous Carcinoma - Spread

- Local infiltration
- Commonly multicentric
- Pagetoid (50-70%)
- Regional lymph node metastasis (20-30%)
- Significant mortality
- High recurrence rate
- High incidence of secondary malignancies

Sebaceous Carcinoma – “Cure”

- Delay to diagnosis
  - Rare lesion which resembles benign inflammation
- Correlation: time to excision and survival, Rao et al
  - Duration <6 months → 14% mortality
  - Duration >6 months → 38% mortality
- Management
  - Map biopsies
  - Excision with wide surgical margins (6mm)
  - Ultimately, exenteration

Sebaceous Carcinoma – disease course & management

- Correlation: time to excision and survival, Rao et al
- Duration <6 months → 14% mortality
- Duration >6 months → 38% mortality

Malignant melanoma

Malignant Melanoma - Background

- 4th most common eyelid malignancy
- MM rarely primarily involves the eyelids
  - MM often spills over from the cheeks
  - MM often spills over from the conjunctiva
- Spreads via direct invasion, lymphatics, or vascular system

Cutaneous Melanoma - Types

1. Lentigo maligna melanoma
2. Superficial spreading melanoma
3. Nodular melanoma
Cutaneous Melanoma - Classification

- Level I - in situ (0%)
- Level II - papillary dermis (2.5%)
- Level III - upper reticular dermis (20%)
- Level IV - reticular dermis (40%)
- Level V - subcutaneous tissue (fat) (70%)

Cutaneous Melanoma - Management

- Main prognostic indicator is tumor thickness
- Wide local excision (10mm)
- Adjunctive chemotherapy
- Local node biopsy
- Chest radiograph
- Liver scan
- LFTs

Conjunctival Melanoma (Primary Atypical Melanosis)

- Analogous to lentigo maligna
- Benign with the potential for malignant change
- Always check the palpebral and fornical conj
- Repeat biopsies for monitor progression
- Because wide excision is frequently not possible, cryo is often utilized, though frequently, invasive conjunctival melanoma ends in exenteration

PAM
Conjunctival Melanoma

Metastatic Eyelid Carcinoma

Masquerade Presentations of Eyelid Malignancy

Melanoma - Review

- Cutaneous
  - Growth, variable pigmentation, irregular margins
  - Aggressive: direct spread, lymphatics, vascular
  - Clarke levels define propensity for metastasis
  - Aggressive surgical management
  - Collaboration with oncology for body scan

- Conjunctival
  - Behaves like lentigo maligna
  - Maintain a high index of suspicion in Caucasians

Metastatic Eyelid Carcinoma

- Diagnosis is critical because it may be the first sign of an occult malignancy
- Usually presents one of three ways:
  - Solitary eyelid nodule (65%)
  - Diffuse eyelid induration (25%)
  - Ulcerative lesion (10%)
- Etiology:
  - Breast (65%)
  - Lung (15%)
  - Stomach (10%)

Masquerade Presentations

- Many eyelid tumors spread in a manner that involves different tissue planes at a microscopic level
- As a result, the process does not present as a discrete lesion and is often misdiagnosed as a benign inflammatory lesion
Chronic Conjunctivitis

- "The patient is non-compliant"
- "I haven’t found the right drop yet"

Chalazion

- Recurrent chalazion, same / multiple locations

Dermatitis

- Allergic dermatitis, chronic eczema, scleroderma

Ectropion

- Cicatricial LL ectropion, LL retraction

Entropion

- Trachoma, OCP

Blepharitis

- Non-compliant patient, poor hygiene
Facial numbness or paralysis

"It's just a Bell's palsy"

Reconstruction Techniques
45 yo WF
Small (<25% of the margin) RLL lesion with some features of a BCC.

In order to get clear margins, we lost 50% of the lower lid.

Create a tarsoconjunctival flap from the underside of the upper lid.
Suture this flap of tarsus into the 50% lower lid defect.

Bring a flap of muscle superiorly to cover the tarsoconjunctival flap.
Cover the whole thing with a third layer—a skin graft taken from the upper lid.

One week after surgery, the newly constructed lower lid is still connected to the upper lid (so that it has a blood supply).
Three weeks after surgery we divide the flaps in the office.
Objective

To raise our collective level of suspicion for lesions of the eyelids and face

Thank you!!!!
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