Eyelid Tumors

Charles Rice MD
Disclosure Statement

Speaker, Charles Rice, M.D. has a financial interest/agreement or affiliation with Lansing Ophthalmology where he is a shareholder and employed as an oculoplastic specialist.
Goals

- Improve ability to accurately diagnosis lesions
- Determine when to refer for biopsy
- Review treatment options for benign growths
- Treatment options for malignant growths
Benign or Malignant
Benign or Malignant
Scope of the problem

- Eyelid bumps are very common
  - Many incidentally found on exam
  - Vast majority are benign

- 5-10% of skin cancers occur on eyelids
History

- Duration of lesion
- Bleeding or crusting
- History of skin cancers
Exam

- Morphology—Smooth, Ulceration, Erosion
- Color ----Flesh Color, Pigmentation, Vascular
- Lid margin---Intact, Notching, Lash Loss
Skin
Eyelid Tumors

Benign

- Wide variety
- Epidermal or Dermal
- Often not treated due to location
- Safely removed with variety of techniques
Eyelid Tumors
Malignant

- Slit-lamp exam allows magnified view and early detection
- Smaller lesions are easier to treat
- Prognosis depends on size and tumor type
- Basal cell carcinoma is most common type
Accuracy of Clinical Diagnosis

- Depends on experience and magnification
- Sensitivity—Clinical Diagnosis of Malignant Lesion
- Specificity--- Clinical Diagnosis of Benign Lesion
Clinically Malignant Lesion Found to be Histologically Malignant

<table>
<thead>
<tr>
<th>Study Author</th>
<th>Percentage</th>
<th>Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kersten</td>
<td>96%</td>
<td>Oculoplastic Surgeon</td>
</tr>
<tr>
<td>Margo</td>
<td>75%</td>
<td>General Ophthalmologists</td>
</tr>
</tbody>
</table>
# Accuracy of Diagnosing Benign Eyelid Lesions

<table>
<thead>
<tr>
<th>Study Author</th>
<th>Success</th>
<th>Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kersten</td>
<td>98% (679 / 692)</td>
<td>Oculoplastic Surgeon</td>
</tr>
<tr>
<td></td>
<td>7 year period</td>
<td></td>
</tr>
<tr>
<td>Margo</td>
<td>92% (44 / 48)</td>
<td>General Ophthalmologists</td>
</tr>
<tr>
<td></td>
<td>1 year period</td>
<td></td>
</tr>
</tbody>
</table>
Clinically Benign Lesions Found to be Histologically Malignant

- 2 – 8% of cases
- Clinical diagnosis of papillomas, cysts, nevi
- Small (1 to 2 mm)
- Non-ulcerated
- Sometimes multi-focal
Benign Lid Growths

- Slow growth
- Non-ulcerated
- No lash loss
- Wide variety of morphology
Location

- Non-marginal
- Lid Margin
- Lash line
- Punctal area
Reluctance to Treat Benign Eyelid Growths

- Scarring
- Lid notching
- Lash loss
- Pigment changes
- Damage to eye
Benign Eyelid Lesions

- Epidermal
- Dermal
- Inflammatory
Epidermal Lesions

- Papillomas
- Seborrheic keratoses
- Fibroepithelial polyps
- Actinic keratoses
Papillomas

- Descriptive term for elevated skin lesion with irregular surface
- Includes verruca vulgaris, seborrheic keratosis, actinic keratosis
Papillomas
Seborrheic Keratoses

- Common in adults
- Round or oval, smooth surface, elevated, brownish color
- Slow growth
Fibroepithelial polyps

- Smooth surface with pedicle
Actinic Keratoses

- Flat, erythematous, whitish scaling
Dermal Lesions

- Nevi
- Hidrocystomas
- Sebaceous cysts
- Xanthelasma
- Syringomas
Nevus

- Present in childhood or early adulthood
- Slow growing, frequently at lid margin
- Pigmented or non-pigmented
Nevus
Hidrocystomas

- Fluid filled cysts
- Apocrine or Eccrine
- Along lid margin or canthal areas
- Treatment is surgical excision or laser
Sebaceous cysts

- Yellowish-white lesions along lid margin
- Usually small (1-3mm)
- Treatment is excision or laser
Xanthelasma

- Plaque-like, yellowish lesions frequently in medial eyelid
- Evaluate for elevated triglycerides or cholesterol
- Lipid laden histiocytes
- Treatment is excision or laser ablation
Syringoma

- Common eyelid lesions
- Small 1-3 mm elevated, yellowish lesion
- Derived from sweat gland
- More visible in warmer weather
Inflammatory Lesions

- Chalazia
- Herpes simplex
- Herpes zoster
- Molluscum contagiosum
Chalazion

- Lipogranulomatous inflammation of sebaceous glands
- Erythematous, nodular lesion located subcutaneously
Chalazion

Treatment

- Hot soaks
- Antibiotic drops and ointment
- Oral Antibiotics
- Incision and drainage
- Steroid injection
- Biopsy ?
Benign Lid Growths

Treatment Options

- Observation
- Surgical excision
- Electrocautery
- Radiofrequency
- Cryotherapy
- Laser
Biopsy?

- Biopsy suspicious lesions
  - Evidence of destruction
  - Pigmentation

- Adequate follow-up or counsel for removal without biopsy

- Risk of misdiagnosing a malignant lesion clinically diagnosed as a benign lesion is low but possible
Pigmented Lesion

After Biopsy
Diagnosis Blue Nevus
Treatment of Benign Eyelid Lesions

Iridex™ 532nm Slit Lamp
Slit Lamp Lasers

- Ophthalmic Usage for Retinal Diseases
- Previous Studies for Lid Lesions
- Argon and Diode Lasers
Benign Lid Growths

Slit Lamp Laser Advantages

- Precision of removal
- Magnification
- Removal of lid margin lesions
- Flat superficial lesions
- No disposables
- Controlled penetration depth
- Ablate and coagulate
Type of Skin Growths

- Solid marginal lesions
- Sebaceous cysts
- Fluid filled cysts
- Raised epidermal lesions
- Flat epidermal lesions
- Dermal lesions
Selective Photothermolysis

Laser wavelength absorbed by tissue chromophore

Laser energy and pulse duration determine degree of tissue effect
Slit Lamp 532 nm Laser

Tissue Chromophores

Melanin

Hemoglobin

Artificial Chromophore

Gentian Violet
Benign Lid Growth Treatment

Procedure

- Gentian Violet marking
- Local anesthetic
- Protective metal corneal shield
- Smoke evacuator
Technique of Laser Usage
532nm Diode Laser

Before

Gentian Violet Marking

Immediately After

2 Months Post
Papillomas

Before Slit Lamp Laser

After Slit Lamp Laser
Seborrheic Keratoses

Before

After
Nevus

Before

Laser Treatment
Nevus

2 months post laser
Hidrocystomas

Before

After
Sebaceous cyst

Before

After

Before

After
Sebaceous cyst
Erbium Laser

- Controlled ablation
- Larger area with scanner handpiece
Xanthelasma

Before

After
Syringoma
Syringoma

Before

After
Hidrocystoma

Sciton Erbium Laser
Hidrocystoma

Sciton Erbium Laser
Malignant Lid Growths

- Gradual onset
- Ulcerated
- Lash loss
- Flat or elevated
Scope of the problem

- Most malignancies present for several months/years at diagnosis
  - 10% >5 yr history*

- Earlier diagnosis is important:
  - Less extensive surgery
  - Less chance of recurrence
  - Less chance of metastasis

Outline

- Presentation of eyelid malignancies
- Diagnosis
- Specific types
  - Basal cell carcinoma
  - Squamous cell carcinoma
  - Sebaceous cell carcinoma
  - Malignant melanoma
  - Others
- Management
Patient presentation

Notching of eyelid margin

Lash Loss
Patient presentation

Lash Loss
- Basal cell carcinoma
- Squamous cell carcinoma
- Sebaceous cell carcinoma
- Malignant melanoma
- Others
Basal Cell Carcinoma

- Most common malignant tumor of eyelid
  - 80%-90% of all eyelid cancers are BCC

- By Location:
  - lower eyelid > medial canthus > lateral canthus > upper lid

- Metastases very rare
Basal Cell Carcinoma

- Subtypes:
  - Nodular: Firm, raised, pearly, telangiectasia
  - Morpheaform: More aggressive and extensive
Basal Cell Carcinoma
• Basal cell carcinoma
• Squamous cell carcinoma
• Sebaceous cell carcinoma
• Malignant melanoma
• Others
Squamous Cell Carcinoma

- Compared with BCC:
  - Flatter, erythematous
  - More difficult to detect margins
  - Higher risk of metastasis
  - Recurrence rate higher
- Perineural invasion is possible
- Treat aggressively

Image from: http://www.drmeronk.com/eyelid/malignancy.html
Squamous Cell Carcinoma

- Perineural spread

Squamous Cell Carcinoma
Eyelid malignancy treatment

- Surgical excision
- Cryotherapy
- Radiotherapy
- Thermocauterization
- Laser Therapy
- Topical chemotherapy
Eyelid Reconstruction

- Direct closure
  - Best repair for small to moderate defects
  - Maximum defect size depends on horizontal eyelid laxity
Eyelid Reconstruction

- < 25%
  - Direct
  - Canthotomy/cantholysis

- 25-50%
  - Direct
  - Tenzel semicircular rotational flap
  - Full thickness composite

- > 50%
  - Tarso-conjunctival flap
Thank You