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Eyelid Lumps and Bumps

Sunday, February 26, 2017
2:40 pm – 3:30 pm Regency C – 3rd Floor

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Dr. Lonsberry is a Full Professor with Pacific University College of Optometry in Oregon. Dr. Lonsberry is a Diplomate of the American Board of Optometry, a Fellow of the American Academy of Optometry, the Optometric Retinal Society, the Optometric Glaucoma Society, and the Ocular Surface Society of Optometry. Dr. Lonsberry obtained his Optometry degree from the University of Waterloo in 1996 after completing a Master of Science in Physiology from the University of Manitoba. He completed his residency in Primary Care Optometry from the Illinois College of Optometry in 1997, then joined the faculty at Southern College of Optometry in Memphis, TN. During his time at SCO, he completed a Master’s in Education degree with an emphasis in adult learning.

Course Description

Patients present with a variety of lumps and bumps associated with the ocular and periocular tissues. This presentation will review the various periocular lesions focusing on differentiating the benign from the malignant, the various differentials and current treatment/management options.
Eyelid Lumps and Bumps

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Agenda

• Benign vs. Malignant lesions
• Benign Eyelid Lesions
  – Various types
  – Diagnostic criteria and differentials
  – Treatment and management options
• Malignant Eyelid Lesions
  – Various types
  – Diagnostic criteria and differentials
  – Treatment and management options
Eyelid Lumps and Bumps

• 15-20% of periocular skin lesions are malignant

• Benign vs malignant:
  – Benign lesions are:
    • Well circumscribed and possibly multiple
    • Slow growing
    • Less inflamed
    • Look “stuck on” instead of invasive and deep
Benign Eyelid Lesions

• Most common types of benign eyelid lesions include:
  – Squamous papillomas (skin tags)-most common
  – Hordeola/chalazia
  – Epidermal inclusion cysts
  – Seborrheic keratosis
  – Apocrine hidrocystoma
  – Capillary hemangioma (common vascular lesion of childhood)
Benign Eyelid Lesions: Squamous Papilloma

• Most common benign lesion of the eyelid
  – Also known as fibroepithelial polyp or skin tag
• Single or multiple and commonly involve eyelid margin
Benign Eyelid Lesions: Squamous Papilloma

- Flesh colored and maybe:
  - sessile (no stalk) or pedunculated (with a stalk)
- Differentials:
  - seborrheic keratosis,
  - verruca vulgaris and
  - intradermal nevus
- Treatment is simple excision at the base of the lesion.
Benign Eyelid Lesions: Seborrheic Keratosis

- Also known as senile verruca
- Common and may occur on the face, trunk and extremities
- Usually affect middle-aged and older adults, occurring singly or multiple, greasy, stuck on plaques
Benign Eyelid Lesions: Seborrheic Keratosis

- Color varies from tan to brown and are not considered pre-malignant lesions
- Differentials include skin tags, nevus, verruca vulgaris, actinic keratosis and pigmented BCC
- Simple excision for biopsy or cosmesis or to prevent irritation.
Benign Eyelid Lesions: Hordeola

• Acute purulent inflammation
  – Internal occurs due to obstruction of MG
  – External (stye) from infection of the follicle of a cilium and the adjacent glands of Zeiss or Moll

• Painful edema and erythema,
Benign Eyelid Lesions: Hordeola

• Typically caused by Staph and often associated with blepharitis
• Treatment includes:
  • hot compresses (e.g. Bruder)
  • topical antibiotics (?)
  • possibly systemic antibiotics
• Treat concurrent blepharitis
Benign Eyelid Lesions: Chalazia

- Focal inflammatory lesion resulting from obstruction of a meibomian or Zeis gland
- Results in a chronic lipogranulomatous inflammation
Benign Eyelid Lesions: Chalazia

• May drain spontaneously or persist as a chronic nodule
• Recurrent lesions need to exclude a sebaceous gland carcinoma
• Treatment varies from:
  • hot compresses/massage,
  • intralesional steroid injection or
  • surgical drainage.
Benign Eyelid Lesions: Epidermal Inclusion Cyst

- Appear as slow-growing, round, firm lesions of dermis or subcutaneous tissue
- Eyelid lesions are usually solitary, mobile and less than 1 cm
- Maybe congenital or may arise from trauma
Benign Eyelid Lesions: Epidermal Inclusion Cyst

- May become infected or may rupture
- Differentials include:
  - dermoid cyst,
  - pillar cyst or
  - neurofibroma
- Treatment is complete excision to prevent recurrence.
Benign Eyelid Lesions: Eccrine Hidrocystoma

- Sudoriferous or sweat gland cysts
- Solitary or multiple, small nodules on the eyelids
- Overlying skin is smooth and shiny and the cyst usually is translucent and fluid filled
Benign Eyelid Lesions: Eccrine Hidrocystoma

- Tend to increase in size in hot, humid weather
- Differentials:
  - apocrine hidrocystoma and
  - epidermal inclusion cyst
- Treatment is complete excision
Benign Eyelid Lesions: Apocrine Hidrocystoma

- Also known as cystadenoma
- Usually appears as a solitary, translucent cyst on the face and sometimes eyelid margin
- Usually small and filled with clear or milky fluid with a shiny smooth overlying skin
Benign Eyelid Lesions: Apocrine Hidrocystoma

- Do not increase in size in warm weather
- Differential:
  - eccrine and
  - cystic BCC
- Treatment is complete excision
Benign Eyelid Lesions: Capillary Hemangioma

- Common vascular lesion in childhood (1-2% of infants)
- Females 3:2
- Periorbital may appear as a superficial cutaneous lesion, subcutaneous, deep orbital or combination
- 1/3 visible at birth, remainder manifest by 6 months
- 75% regress to some extent by 7 years
Benign Eyelid Lesions: Capillary Hemangioma

• Classic superficial lesion—strawberry lesion, appears as a red, raised, nodular mass which blanches with pressure
• Most common ocular complication is amblyopia
• Because regression is common, treatment is reserved for patients who have specific ocular, dermatologic or systemic indications for intervention.
Benign Eyelid Lesions: Capillary Hemangioma

• Recent evidence supports the use of oral propanolol and possibly topical timolol 0.25% for superficial hemangiomas
Benign Eyelid Lesions: Pyogenic Granuloma

- Most common acquired vascular lesion to involve the eyelids
- Usually occurs after trauma or surgery as a fast growing, fleshy, red-to-pink mass which readily bleeds with minor contact
Benign Eyelid Lesions: Pyogenic Granuloma

- Differential include Kaposi’s sarcoma
- Treatment can include use of steroid to reduce the inflammation or surgical excision at the base of the lesion.
Benign Eyelid Lesions: Xanthelasma

- Typically occurs in middle-aged and older adults as soft, yellow plaques on the medial aspect of the eyelids.
- Hyperlipidemia is reported to occur in approx 50% of patients therefore screening recommended.
Benign Eyelid Lesions: Xanthelasma

• Composed of foamy, lipid-laden xanthoma cells clustered around blood vessels and adnexal tissue within the superficial dermis

• Treatment includes:
  – surgical excision,
  – CO2 ablation and
  – topical trichloroacetic acid.

• Recurrence is common.
Benign Eyelid Lesions: Molluscum Contagiosum

- Common viral skin disease caused by a large DNA pox virus
- Infection usually from direct contact in children and sexually transmitted in adults
- Typical lesion appears as a raised, shiny, white-to-pink nodule with a central umbilication filled with cheesy material
Benign Eyelid Lesions: Molluscum Contagiosum

- Eyelid lesions may produce a follicular conjunctival reaction.
- Patients with AIDS may have a disseminated presentation (30-40 each eyelid or a confluent mass).
- Usually spontaneously resolves 3-12 months but maybe treated to prevent spread by excision, incision and curettage, cryosurgery and electrodesiccation.
Benign Eyelid Lesions: Verruca Vulgaris

• Common cutaneous wart caused by the epidermal infection of the human papillomavirus
• More common in children and young adults and may occur anywhere on the skin
• Lesions appear elevated with an irregular, hyperkeratotic papillomatous surface
Benign Eyelid Lesions: Verruca Vulgaris

• Lesions along lid margin may cause papillary conjunctivitis
• Tend to be self limiting but if treatment required required cryoptherapy or surgical excision.
Which of the following lid nevi have the greatest chance to convert to a malignant melanoma?

1
2
3
4
Lid Nevi

• Lid nevi:
  – congenital or acquired
  – occur in the anterior lamella of the eyelid and can be visualized at the eyelid margin.

• The **congenital eyelid nevus** is a special category with implications for malignant transformation.

• With time, slow increased pigmentation and slight enlargement can occur.

• An **acquired nevus** generally becomes apparent between the ages of 5 and 10 years as a small, flat, lightly pigmented lesion.
Congenital Nevus

• The nevus is generally well circumscribed and not associated with ulceration.

• The congenital nevus of the eyelids may present as a "kissing nevus" in which the melanocytes are present symmetrically on the upper and lower eyelids.
  – Presumably this nevus was present prior to eyelid separation.
Congenital Nevus

- Most nevi of the skin are not considered to be at increased risk of malignancy.
  - However, the large congenital melanocytic nevus appears to have an increased risk of malignant transformation of 4.6% during a 30 year period
Acquired Lid Nevi

• Acquired nevi are classified as:
  
  – **junctional** (involving the basal epidermis/dermis junction), typically flat in appearance
  
  – **intradermal** (involving only the dermis), tend to be dome shaped or pedunculated
  
  – **compound** (involving both dermis and epidermis) tend to be dome shaped
Pre-Malignant Eyelid Lesions: Keratoacanthoma

• Appears as a solitary, rapidly growing nodule on sun exposed areas of middle-aged and older individuals

• Nodule is usually umbilicated with a distinctive crater filled with keratin

• Lesion develops over weeks and undergoes spontaneous involution within 6 mo to leave an atrophic scar
Pre-Malignant Eyelid Lesions: Keratoacanthoma

- Lesion on the eyelids may produce mechanical problems such as ectropion or ptosis.
- Differential SCC, BCC, verruca vulgaris and molluscum
- Many pathologists consider it a type of low grade SCC
- Complete excision is recommended as there are invasive variants
Pre-Malignant Eyelid Lesions: Actinic Keratosis

- Also known as solar or senile keratosis
- Most common pre-malignant skin lesion
- Develops on sun-exposed areas and commonly affect the face, hands and scalp (less commonly the eyelids)
  - Predominately white males
Pre-Malignant Eyelid Lesions: Actinic Keratosis

• Appear as multiple, flat-topped papules with an adherent white scale.
• Development of SCC in untreated lesions as high as 20%
• Management is surgical excision or cryotherapy (following biopsy)
Malignant Eyelid Lesions: Basal Cell Carcinoma (BCC)

- Most common malignant lesion of the lids (85-90% of all malignant epi eyelid tumors)
- 50-60% of BCC affect the lower lid followed by medial canthus 25-30% and upper lid 15%
Malignant Eyelid Lesions: Basal Cell Carcinoma (BCC)

- Etiology is linked to excessive UV exposure in fair-skinned, ionizing radiation, arsenic exposure and scars
- Metastases is rare but local invasion is common and can be very destructive
Malignant Eyelid Lesions: Basal Cell Carcinoma

- Diagnosis is initially made from its clinical appearance, especially with the noduloulcererative type with its raised pearly borders and central ulcerated crater
  - categorized into two basic types: noduloulcerative and morpheaform
  - The morpheaform variant is typically diffuse, relatively flat with indistinct borders. This variant is more aggressive and can be invasive despite showing less obvious features.
Malignant Eyelid Lesions: Basal Cell Carcinoma

• Definitive diagnosis made on histopathological examination of biopsy specimens
  – loss of adjacent cilia is strongly suggestive of malignancy and occurs commonly with basal cell carcinoma of the eyelid

• Surgery is generally accepted as treatment of choice
  – Mohs’ surgery technique
Malignant Eyelid Lesions: Squamous Cell Carcinoma (SCC)

- Much less common than BCC on the eyelid but has much higher potential for metastatic spread
- Typically affects elderly, fair-skinned and usually found on the lower lid
Malignant Eyelid Lesions: Squamous Cell Carcinoma (SCC)

• Environmental and intrinsic factors initiate cell growth
  – Many SCC arise from actinic lesions
Malignant Eyelid Lesions: Squamous Cell Carcinoma (SCC)

- Presents as a erythematous, indurated, hyperkeratotic plaque or nodule with irregular margins
- Lesions have a high tendency towards ulceration and tend to affect lid margin and medial canthus
Malignant Eyelid Lesions: Squamous Cell Carcinoma (SCC)

- Diagnosis requires biopsy
- Surgical excision is recommended
  - Mohs’ technique
Malignant Eyelid Lesions: Sebaceous Gland Carcinoma

- Highly malignant neoplasm that arises from the meibomian glands, Zeis and the sebaceous glands of the caruncle and eyebrow
- Aggressive tumor with a high recurrence rate, significant metastatic potential and notable mortality rate
  - rates of misdiagnosis have been reported as high as 50%
Malignant Eyelid Lesions: Sebaceous Gland Carcinoma

- Relatively rare, 1/3 most common eyelid malignancy
- Uncommon in the Caucasian population and represents only 3% of eyelid malignancies,
  - most common eyelid malignancy in Asian Indian population, where it represents approximately 40% or more of eyelid malignancies
Malignant Eyelid Lesions: Sebaceous Gland Carcinoma

- Upper lid origin in about 2/3 of all cases
- Typically affects older individuals, women more so than men
- has also been reported in younger individuals who are immunosuppressed or who have received radiation treatment.
Malignant Eyelid Lesions: Sebaceous Gland Carcinoma

- Presents as a firm, yellow nodule that resembles a chalazion.
- May mimic:
  - chronic blepharoconjunctivitis,
  - meibomianitis or
  - chalazion that does not respond to standard therapies
Malignant Eyelid Lesions: Sebaceous Gland Carcinoma

- Diagnosis is by biopsy
- Treatment is surgical excision with microscopic monitoring of the margins
Malignant Eyelid Lesions: Malignant Melanoma

- MM of the eyelid accounts for about 1% of all eyelid malignancies
- Incidence been increasing and it causes about 2/3 of all tumor related deaths from cutaneous cancers
- Incidence increases with age
Malignant Eyelid Lesions: Malignant Melanoma

- Risk factors include congenital and dysplastic nevi, changing cutaneous moles, excessive sun exposure and sun sensitivity, family history, age greater than 20 and white.
- History of severe sunburns rather than cumulative actinic exposure thought to be a major risk factor.
Malignant Eyelid Lesions: Malignant Melanoma

- Flat lesion with irregular borders and variable pigmentation typically occurring in sun exposed areas
- Confirmed diagnosis by biopsy
Malignant Eyelid Lesions: Malignant Melanoma

- Prognosis and metastatic potential are linked to the depth of invasion and thickness of the tumor
- Treatment is wide surgical excision confirmed with histological monitoring