Eyelid Lesions:
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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

- 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,

- 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

- 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

- 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

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

Benign Eyelid Lesions: Capillary Hemangioma

- Most common vascular lesion in childhood (5-10% 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

- 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 electodesiccation.

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 cryotherapy or surgical excision.

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 noduloulcerative 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

- 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
- Presents as a erythematos, 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

Thank You!
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