

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



Aussie Patient Story

- Male 59 Anglo Celtic heritage
- Asymptomatic , accidental detection by daughter following island holiday Bali and further sun exposure August 2016
- Hx : surfer and excessive sun exposure - coconut oils etc for first 2 decades of life.



Aussie Patient Story

- Initial dermatologist opinion – BCC (basal cell carcinoma)
- **BUT** biopsy confirmed aggressive malignant melanoma, 2.2 mm thick , 5 mm cell growth rate



Aussie Patient Story

- Initial excision September 14 2016 .
 - Found to have invaded sentinel axillary node –
- further surgery October 6 - complete axillary dissection right underarm - pathology clear.
- Final dx - stage 3 malignant melanoma.



Eyelid Lumps and Bumps

- 15-20% of periorcular 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)



Is it Benign?

- H: loss of hair bearing structures?
- A: asymmetrical?
- A: abnormal blood vessels (telangectasia's)?
- B: borders irregular?
- B: bleeding reported?
- C: multicolored?
- C: change in the size or color of the lesion?
- D: overall diameter > 5 mm?



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 excision at the base of the lesion.
 - Radiosurgery
 - Cryotherapy
 - Chemical removal e.g TCA



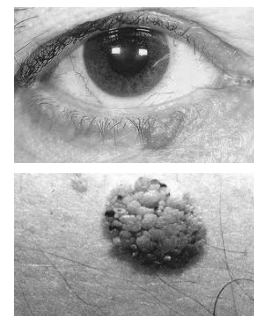
Radiofrequency (RF) Surgery

- Radiosurgery is the passage of high frequency radiowaves through soft tissue to cut, coagulate, and/or remove the target tissue
- Cuts and coagulates at the same time
- Nearly bloodless field
- Minimal biopsy artifact damage
- Quick and easy (to do and to learn)
 - Pressureless & bacteria-free incisions
- Minimal lateral heat
- Minimal Post-op pain
- Rapid healing
- Fine control with variety of tips



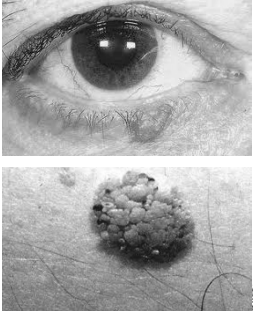
Benign Eyelid Lesions: Seborrheic Keratosis

- 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.



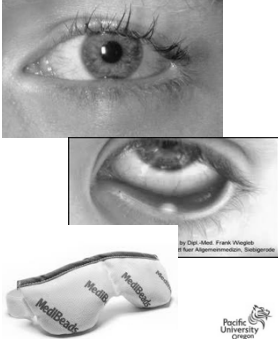
Benign Eyelid Lesions: Hordeola

- 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




ARMOR

- Antibiotic Resistance Monitoring in Ocular Microorganisms (ARMOR)
- Approximately 42% of isolates were determined to be MRSA
- Newer fluoroquinolones have better activity than earlier generations
- Besivance has the lowest MIC values of all the fluoroquinolones
- Vancomycin is drug of choice if MRSA present
- Azithromycin had very poor activity against Staph


Benign Eyelid Lesions: Chalazia

- Focal inflammatory lesion resulting from obstruction of a meibomian or Zeiss 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: 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




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 propranolol 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.



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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



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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.



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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



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Benign Eyelid Lesions: Molluscum Contagiosum

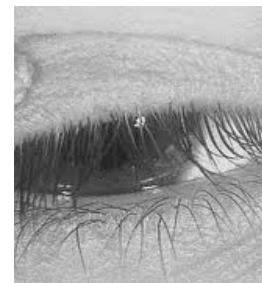
- Eyelid lesions may produce a follicular conjunctival reaction
- Patients with AIDS may have a disseminated presentation (30-40 each eyelid or a confluent mass)
- Usually spontaneously resolves 3-12 months but maybe treated to prevent spread by excision, incision and curettage, cryosurgery and electrodesiccation.



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Benign Eyelid Lesions: Verruca Vulgaris

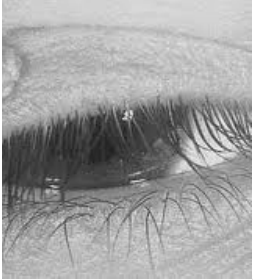

- Common cutaneous wart caused by the epidermal infection of the human papillomavirus
- More common in children and young adults and may occur anywhere on the skin
- Lesions appear elevated with an irregular, hyperkeratotic papillomatous surface



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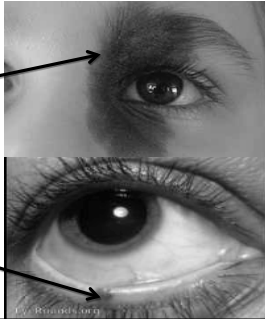

Benign Eyelid Lesions: Verruca Vulgaris

- Lesions along lid margin may cause papillary conjunctivitis
- Tend to be self limiting but if treatment required cryotherapy or surgical excision.

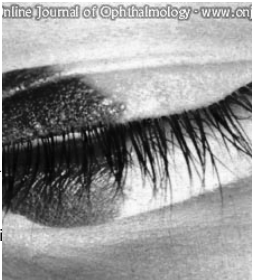

Lid Nevi

- 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

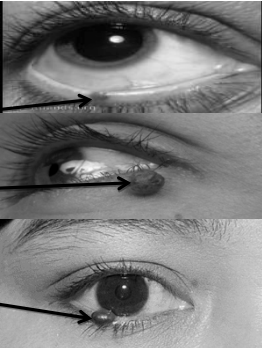

Congenital Nevus

- 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



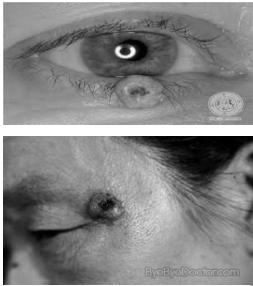

Acquired Lid Nevi

- 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

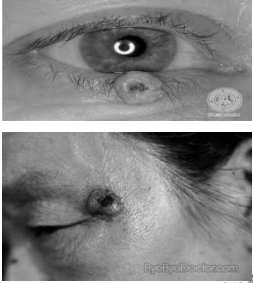
Pre-Malignant Eyelid Lesions: Keratoacanthoma

- 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

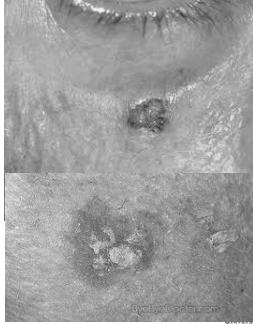
- Lesion on the eyelids may produce mechanical problems such as ectropion or ptosis.
- Differential SCC, BCC, verruca vulgaris and molluscum
- Many pathologists consider it a type of low grade SCC
- Complete excision is recommended as there are invasive variants



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Pre-Malignant Eyelid Lesions: Actinic Keratosis

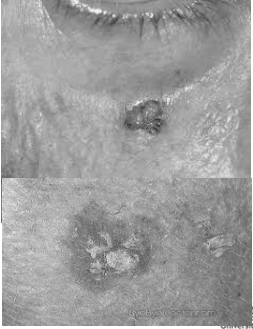
- Also known as solar or senile keratosis
- Most common pre-malignant skin lesion
- Develops on sun-exposed areas and commonly affect the face, hands and scalp (less commonly the eyelids)
 - Predominately white males



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Pre-Malignant Eyelid Lesions: Actinic Keratosis

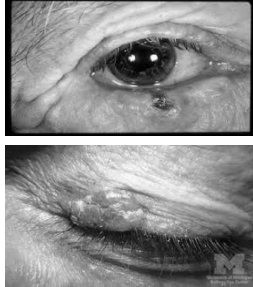
- Appear as multiple, flat-topped papules with an adherent white scale.
- Development of SCC in untreated lesions as high as 20%
- Management is surgical excision or cryotherapy (following biopsy)



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Malignant Eyelid Lesions: Basal Cell Carcinoma (BCC)

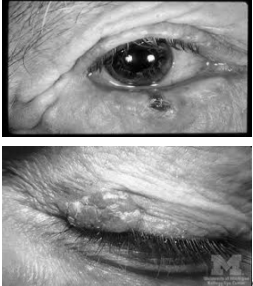
- Most common malignant lesion of the lids (85-90% of all malignant epi eyelid tumors)
- 50-60% of BCC affect the lower lid followed by medial canthus 25-30% and upper lid 15%



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Malignant Eyelid Lesions: Basal Cell Carcinoma (BCC)

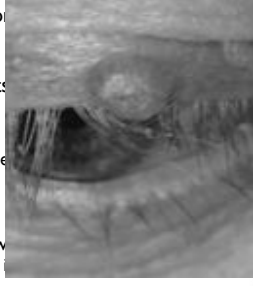
- Etiology is linked to excessive UV exposure in fair-skinned, ionizing radiation, arsenic exposure and scars
- Metastases is rare but local invasion is common and can be very destructive



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Malignant Eyelid Lesions: Basal Cell Carcinoma

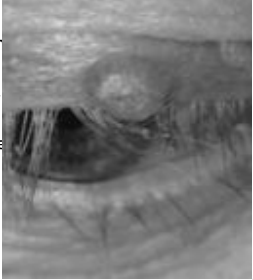

- Diagnosis is initially made from its clinical appearance, especially with the noduloulcerative type with its raised pearly borders and central ulcerated crater
 - categorized into two basic types: noduloulcerative and morpheaform
 - The morpheaform variant is typically diffuse, relatively flat with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



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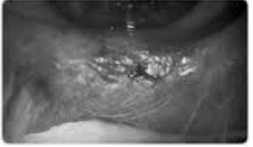


Malignant Eyelid Lesions: Basal Cell Carcinoma

- 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 treatment of choice
 - Mohs' surgery technique

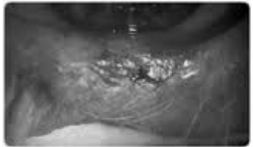


Malignant Eyelid Lesions: Squamous Cell Carcinoma (SCC)

- 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

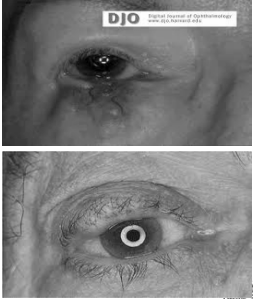
Malignant Eyelid Lesions: Sebaceous Gland Carcinoma

- 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



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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.



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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



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Malignant Eyelid Lesions: Sebaceous Gland Carcinoma

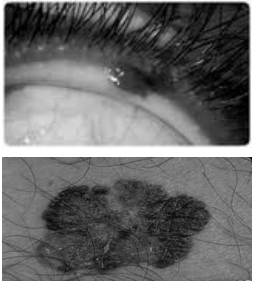
- Diagnosis is by biopsy
- Treatment is surgical excision with microscopic monitoring of the margins



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Malignant Eyelid Lesions: Malignant Melanoma

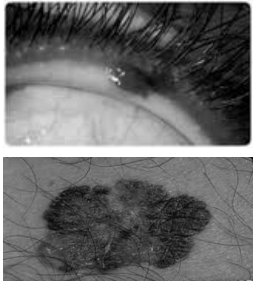
- MM of the eyelid accounts for about 1% of all eyelid malignancies
- Incidence been increasing and it causes about 2/3 of all tumor related deaths from cutaneous cancers
- Incidence increases with age



Source: Wolffsohn JJ, Papadakis MA. Current Medical Diagnosis & Treatment 2017, 56th Edition. <http://www.accessmedicine.com>
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Malignant Eyelid Lesions: Malignant Melanoma

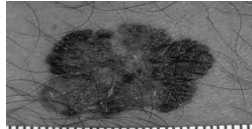
- Risk factors include congenital and dysplastic nevi, changing cutaneous moles, excessive sun exposure and sun sensitivity, family history, age greater than 20 and white.
- History of severe sunburns rather than cumulative actinic exposure thought to be



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Malignant Eyelid Lesions: Malignant Melanoma

- Flat lesion with irregular borders and variable pigmentation typically occurring in sun exposed areas
- Confirmed diagnosis by biopsy



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Malignant Eyelid Lesions: Malignant Melanoma

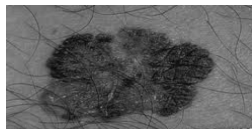
The ABCDEs of Detecting Melanoma

	A Asymmetry	B Border	C Color	D Diameter	E Evolving
NORMAL					
MELANOMA					

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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



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