

Lids

Eyelid Neoplasms (10 mins)

- May arise from epidermis, dermis or eyelid adnexal structures
 - Keratinizing epidermis
 - Prominence of sebaceous glands and blood vessels
- Epidermal origin most common
- Main goal: identify and diagnose malignancy

Characteristics Suggesting Malignancy

- Pearly, irregular border
- Induration
- Ulceration
- Telangectasia
- Alteration of normal architecture
- Painless

Benign or Malignant?

- Most periocular epithelial lesions non-malignant
- Clinical judgment < 100% accurate
- When in doubt, biopsy!

Clinical Evaluation: History

- Hx prior cancer
- Sun exposure
- Past radiation
- Smoking
- Skin type

Clinical Signs

- Slow painless growth
- Ulceration, bleeding, crusting
- Irregular pigmentary changes
- Destruction of normal architecture
 - Lash loss, meibomian orifices
- Pearly edge, central ulceration
- Telangectasia
- Loss of cutaneous wrinkles

Other Clinical Signs

- Palpable induration: infiltration into dermis, subcutaneous tissue
- Lesions near punctum: possible lacrimal invasion
- Fixation to deeper tissues/bone
- Lymph nodes
- Restricted EOM, proptosis: orbital invasion

Adjunctive Testing

- Biopsy to confirm diagnosis
- Photographs
- CT or MRI
- Systemic evaluation: sebaceous carcinoma, melanoma
- Probing and irrigation

Techniques of Eyelid Biopsy

- A-Excisional
- B-Full-thickness

Benign Eyelid Lesions (15 mins)

- Epithelial
- Adnexal
- Melanocytic

Epithelial Hyperplasias

- Papilloma
- Seborrheic keratosis
- Pseudoepitheliomatous hyperplasia
- Verruca
- Acrochordon or skin tag
- Fibroepithelial polyps
- Many others

Papilloma

- Polyp of skin
- Fingerlike projections of papillary dermis
- Dilated capillaries are seen in the dermis with a variable chronic inflammatory infiltrate
- Traumatized may cause ulceration

Seborrheic Keratosis

- Common benign tumor in older individuals
- Proliferation of epidermal cells
- Seen more in sun-lighted areas
- >64 y.o. 88% had at least one lesion
- Velvety to fine surface
 - Stuck on appearance

Verruca

- Viral and contagious
- Appears like cauliflower and sometimes with black spots
- Black dots are classical verruca
 - Bleeding of fine capillaries

Epithelial Cysts

- Epidermal inclusion cyst
- Milia (multiple tiny inclusion cysts)
- Molluscum contagiosum
 - Viral infection of epidermis
 - Waxy nodular w/ associated follicular conjunctivitis
 - Treatment: excision

Epidermal Inclusion Cyst

Molluscum Contagiosum

Adnexal Lesions

- Adnexa: skin appendages including hair follicle, oil gland, sweat gland

Lesions of Oil Gland Origin

- Chalazion and hordeolum
 - Acute purulent inflammation of meibomian gland (internal) and sebaceous glands (external)
 - Chalazion is a chronic inflammation of the glands
- Sebaceous gland hyperplasia
- Sebaceous adenoma: r/o sebaceous ca
- Xanthelasma
 - Raised yellow tumor
 - Occur with hyperlipidemia

Chalazion

Sebaceous Adenoma

- Rare tumor
- Yellow nodule

- Appearance of a solitary adenoma may underline a gastrointestinal malignancy
 - Muir-Torre Syndrome

Eccrine Sweat Gland Lesions

- Syringomas:
 - Young females, multiple small waxy pale nodules
 - Firm 1-3 mm
 - Eyelids, cheeks, neck, axillae, chest, abdomen
- Hydrocystoma
 - Bluish in color
 - Filled with a watery fluid
 - Differentiating them from keratinous cyst-thick and cheesy
- Others: acrospiroma, pleomorphic adenoma

Hidrocystoma

- Middle-aged individuals
- Blockage of sweat duct
 - Results in cystic structure
- Treatment is excision

Syringoma

Apocrine Sweat Gland Lesions

- Apocrine hidrocystoma (common)
 - Arise from glands of Moll
 - Resemble retention cyst
 - Benign cystic proliferations
 - Solitary, soft, dome-shaped, translucent
 - Slow growing and indefinitely persistent
 - Tx: excision/marsupialization
- Cylindroma (rare)
 - Seen in the scalp
 - Appears in early childhood
 - Lesions on the scalp occur in large numbers
 - "Turban tumor"

Hidrocystoma

Hair Follicle Lesions

- Trichoepitheliomas
 - Benign tumors
 - Single lesion of harmless skin growths
 - Arise after puberty
 - Hair follicles do not form actual hair shafts
- Trichiomma
 - Solitary lesions in the eyelids
 - Less common than epidermal cysts
 - Resemble BSC and SCC

Trichoepitheliomas

Pilomatrixoma

- Benign calcifying epithelioma
- Developed from hair matrix cells

Benign Melanocytic Lesions

- Nevi
 - Freckle
 - Lentigo simplex

- Solar lentigo
- Blue nevus
- Nevus of Ota
 - Oculodermal melanocytosis

Nevus

- Modified intraepithelial melanocytes that tend to form characteristic nests
- Do not become apparent until late childhood or puberty when they acquire pigment

Blue Nevus

- A variant of a common mole
- Composed of melanocytes, the cells which produce the melanin pigment.
- Nevus gets its name from the distinct clinical appearance because of the pigmented cells within the dermis.
- It is benign and is usually more of a cosmetic problem

Oculodermal Melanocytosis

- Common in black and Asian patients condition
- Almost always unilateral
- Abnormal uveal pigment
- Higher than normal incidence of uveal melanomas is encountered in these patients

Premalignant Epidermal Lesions

- Actinic Keratosis
 - 12-16% incidence of Squamous Ca
 - Tx: excision or cryo, 5-FU cream
- Bowen Disease
 - Squamous Ca in situ
 - 5% progress to invasive Squamous Ca
- Keratoacanthoma
 - Now regarded as low grade Squamous ca
 - Rapidly growing lesions often solitary
 - Middle-aged or elderly people appear as dome-shaped nodules
 - Horn-filled central craters

Actinic Keratosis

Keratoacanthoma

- Self-healing carcinoma
 - Pseudo carcinoma
 - Rapid enlargement
 - Different than SCC
- Sun damage may lead to this
 - Predominantly in elderly patients >45 y.o.
- Starts as pimple or boil
- M>F
- Involution spontaneously
 - Excision often performed

Premalignant Melanocytic Lesions

- Lentigo maligna
 - 30-50% progress to invasive melanoma
 - Surgical excision
 - Control of surgical margins

Malignant Neoplasms (5 mins)

- Basal Cell Carcinoma
- Squamous Cell Carcinoma
- Sebaceous Cell Carcinoma

- Melanoma

Basal Cell Carcinoma

- 90-95% of eyelid malignancies
- Arise from hair-bearing skin
- Cystic type resemble a benign inclusion cyst
 - Fibrosing difficult to Dx
 - Lie beneath and lose lashes
 - Entropion/ectropion
 - Lid notch/retraction/chalazia
 - Chronic blepharitis

Basal Cell Carcinoma (5 mins)

- Location
 - LL: 50-60%
 - MC: 25-30%
 - UL: 15%
 - LC: 5%
- Hx: fair skin, sun exposure, smoking, prior BCC
- Forms: nodular, morpheaform
- Rarely metastasize
 - Recurrent or neglected may invade orbit and need exenteration

Treatment of BCC

- Biopsy
- Surgical excision, histological control of margins
- MC BCCs more likely infiltrative
- Cryotherapy not recommended
- Radiation therapy (XRT) palliative
 - Use of ionizing radiation to damage cells DNA
 - Malignant cells are less likely to repair DNA damage
- Extensive cicatrix

Squamous Cell Carcinoma (5 mins)

- 40x less common than BCC for the lid
- More common epithelial malignancy of the conjunctiva
- More aggressive
- Solar injury
- In areas of actinic keratosis,

Squamous Cell Carcinoma

- Potentiated by immunodeficiency
- May resemble various benign inflammatory lesions
 - Pseudoepitheliomatous hyperplasia
 - Inverted follicular keratosis
 - Keratocanthoma
 - Metastasis by lymphatic, blood, direct extension (along nerves)

Treatment of SCC

- Aggressive surgical excision
- Recurrences may require orbital exenteration

Sebaceous Adenocarcinoma (5 mins)

- Rare malignancy
 - 1-5.5% of eyelid malignancies in U.S.
 - 33% of eyelid malignancies in China
- Highly malignant, lethal
- Sebaceous gland origin: meibomian, Zeis, caruncle, eyebrow or facial skin

Sebaceous Adenocarcinoma (5 mins)

- F>M
- UL>LL

- Multicentric origin common

Sebaceous Adenocarcinoma

Sebaceous Adenocarcinoma

Presentation

- Patients commonly > 50 y/o
- Yellowish coloration
- Often masquerades as chalazion, chronic blepharitis, SLK, pannus associated w/ adult inclusion conjunctivitis
 - Misdiagnosis is delayed by average of 3 yrs.

Key Point

- Beware of the “chalazion” that later causes loss of eyelashes and destruction of meibomian gland orifices

Malignant Melanoma (5 min)

- 5% of all skin cancers
- <1% of eyelid malignancies
- UV, genetic predisposition, mutagens
- Arise de novo, from nevi or lentigo maligna
- Acquired pigmented lesion >20-30y/o

Malignant Melanoma

- Appearance: variable pigmentation, irregular borders, may ulcerate and bleed
- Forms
 - Lentigo maligna melanoma*
 - Nodular melanoma*
 - Superficial spreading melanoma
 - Arco-lentiginous melanoma

Treatment of MM

- Depth of invasion affects prognosis
- Preop metastatic workup
- Regional lymph node dissection

Kaposi Sarcoma (2 min)

- Manifestation of AIDS
- Can mimic FB granuloma or cavernous hemangioma
- Conjunctival lesions in AIDS are rarely first clinical manifestation of the disease
- Symptomatic respond rapidly to radiation therapy

When in Doubt, Cut It Out!-Conclusion (3 min)