



Eyelid Lesions & Basic Eyelid Reconstruction

Subtitle

Ohio Ophthalmological Society Annual Meeting

Saturday, February 28th, 2026

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Disclosures and Commercial Bias

- The authors and institutions involved in this work have no relevant relationships or agreements to disclose, financial or otherwise.

Objectives

1. Be able to name the most common eyelid lesions
2. Be able to discuss the management options

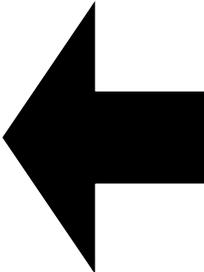
Outline

- Basics of exam
- Benign eyelid lesions
- Malignant lesions
- Some pathology
- Basics of eyelid reconstruction

Accuracy of Clinical Diagnosis of Cutaneous Eyelid Lesions

Robert C. Kersten, MD, David Ewing-Chow, MD, Dwight R. Kulwin, MD,
Marco Gallon, MD

Results: A biopsy was done on a total of 864 eyelid lesions during the 85 month study period. One hundred fifty-three lesions clinically were thought to represent malignancies. Of these, 140 (91.5%) were found to have malignant histopathologies. Nineteen lesions clinically were thought to represent premalignant processes. Histopathologic evaluation of these 19 lesions showed 16 to be actually premalignant, 1 to be a malignancy, and 2 to be benign. Six hundred ninety-two lesions clinically were thought to be benign. Of these, 13 (1.9%) proved on histopathologic evaluation to be malignant. These included 10 basal cell carcinomas, 1 squamous cell carcinoma, 1 non-Hodgkin lymphoma, and 1 adenoid cystic carcinoma. Three (0.4%) of the 692 clinically benign lesions were found to be premalignant. The 13 missed malignancies were distributed among a number of different clinical diagnoses, including papilloma, epidermal inclusion cyst, melanocytic nevus, hydrocystoma, and trichoepithelioma. Of the 153 clinically malignant lesions, 6 lesions that clinically were highly suspicious for malignancy had initial benign histopathologic diagnoses. Rebiopsy results in all of these six subsequently confirmed the suspected malignant diagnosis.



Clinical eye
very useful,
but still
inaccurate.

Summary: Lumps & Bumps

High Clinical Suspicion
Low Threshold

New
Pigmented
Growing
Irregular
Painful
Questionable

Papillomas

- Basket term to describe a variety of benign epithelial proliferations
 - Seborrheic keratosis
 - Verruca (wart)
 - Acrochordon
 - skin tag, fibroepithelial polyp, squamous papilloma
 - Basosquamous acanthoma
 - Squamous acanthoma
- All can be treated with shave excision

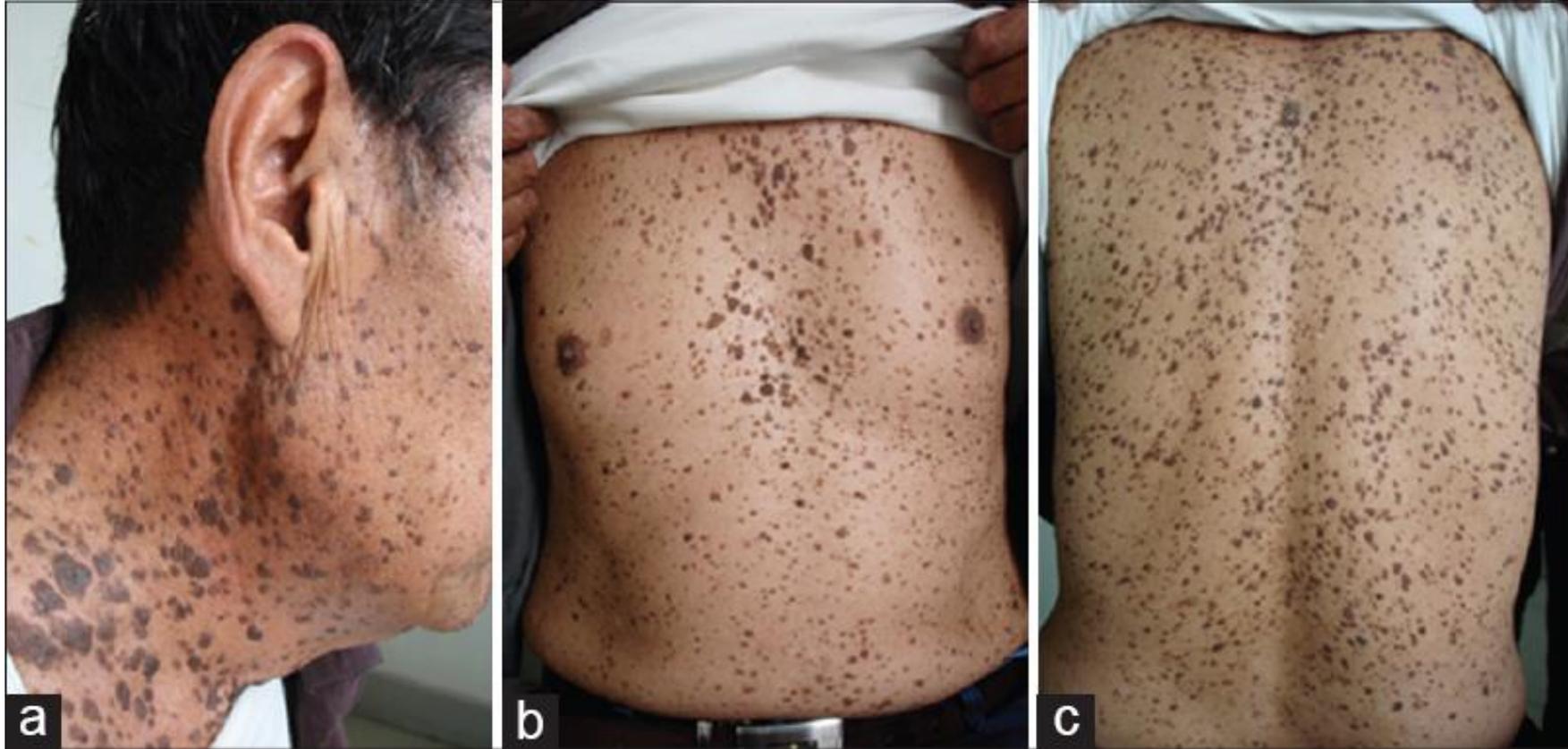


Seborrheic Keratosis



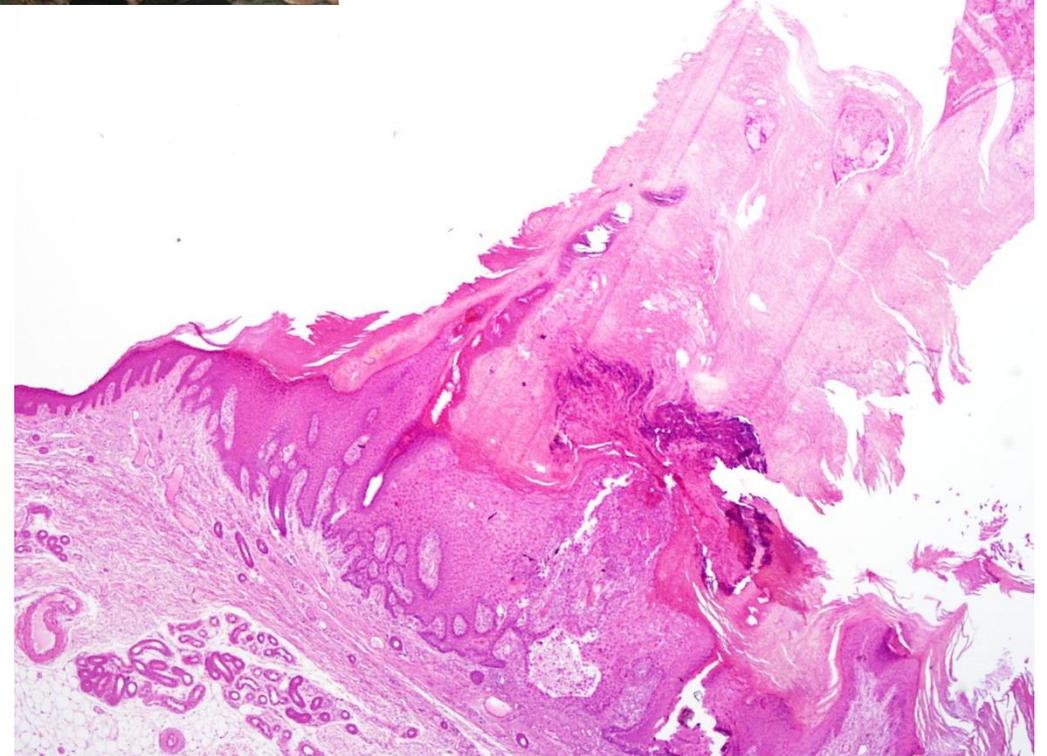
Waxy Stuck on Appearance

Explosive onset seborrheic keratosis?



Leser Trelat sign: associated with GI adenocarcinoma

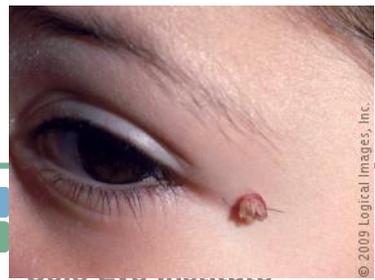
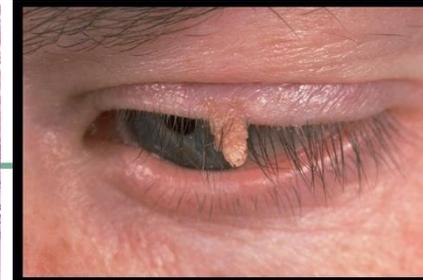
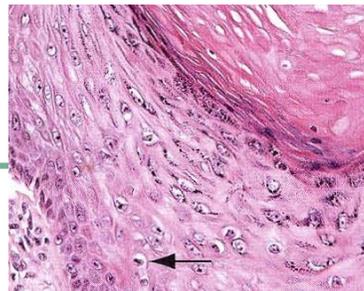
Cutaneous horn



- Descriptive term, not a pathologic diagnosis
- Can be seen with actinic keratosis, SCC, verruca, sebK, BCC, trichilemmoma, keratoacanthoma, epidermal nevus, psoriasis, etc...
- Sample the base to determine etiology
- Benign in more than 50% of patients!

Verruca Vulgaris

- Virus? HPV
 - Serotypes? 6, 11
- Acanthosis?
Thickening of epidermis
- Hyperkeratosis?
Thickening of stratum corneum, lots of keratin
- Parakeratosis?
incomplete keratinization, nuclei remain in the cells



What is this?

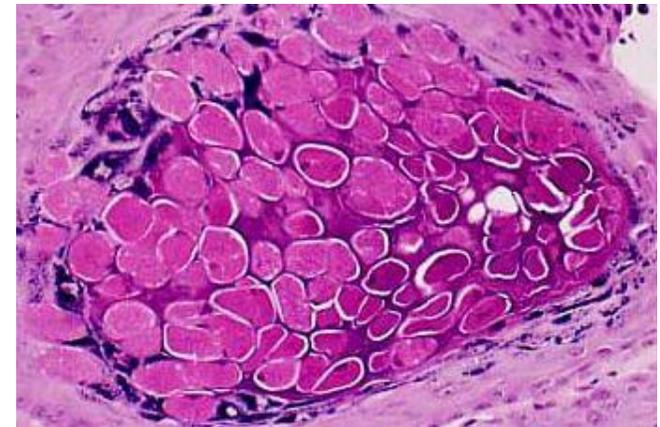


Molluscum Contagiosum



- What type of virus? Pox virus
- Waxy nodules with central umbilication
- Kids, immunocompromised, spread via contact
- What type of conjunctivitis? Follicular
- Treatments?

Imiquimod, cryotherapy,
curettage, cauterization



Henderson-Paterson bodies
(intracytoplasmic eosinophilic inclusions)

What are these lesions?

Hint: Not Basal Cell Carcinoma

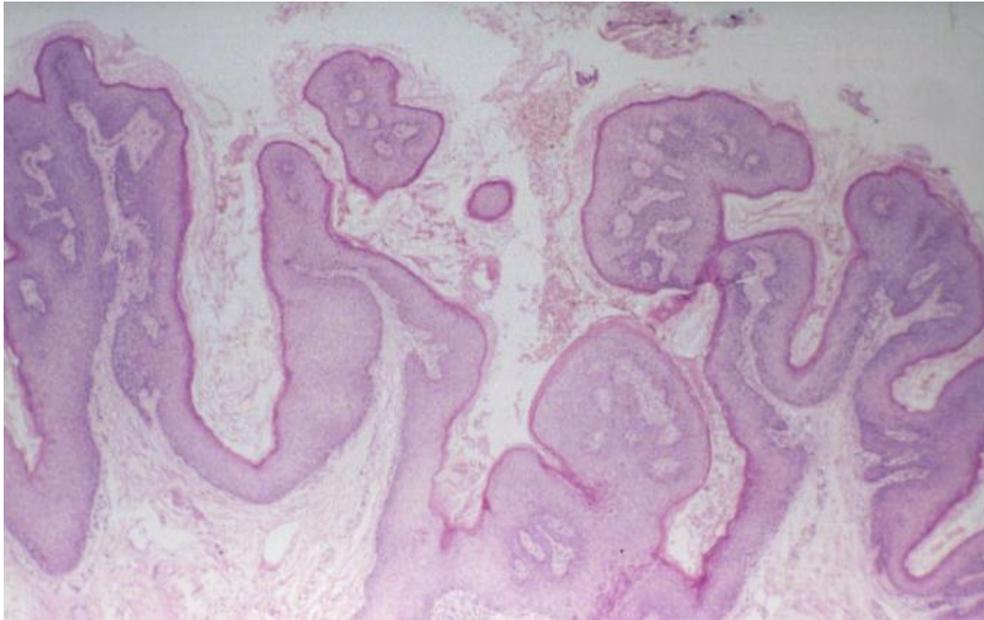
Sebaceous hyperplasia

If visceral malignancy ----> Muir-Torre Syndrome – sebaceous gland carcinoma.



Squamous Papilloma (aka skin tag or Acrochordon)

- Path: fingerlike projections of vascularized connective tissue covered by hyperplastic epithelium
- Acanthosis and hyperkeratosis



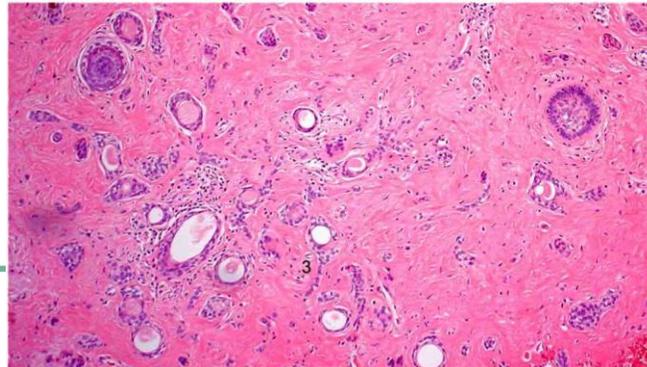
Cysts

- White cysts
- Epidermal inclusion cysts
 - Surgical excision
- Milia=multiple tiny epidermal inclusion cysts
 - Usually resolve spontaneously
 - Can needle marsupialize
 - Excise surgically
- Clear cysts
- Syringoma (small)
- Hidrocystoma (larger)

What is this?

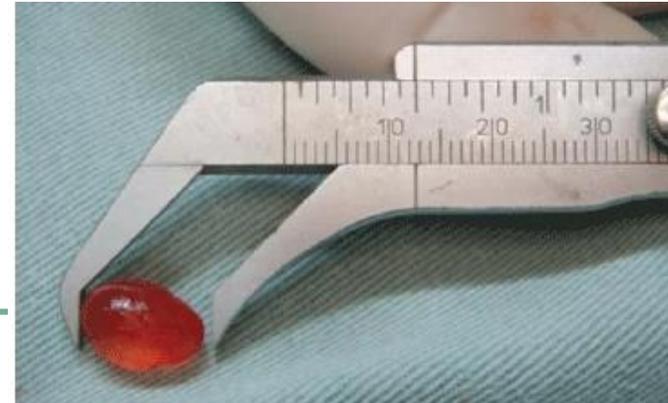
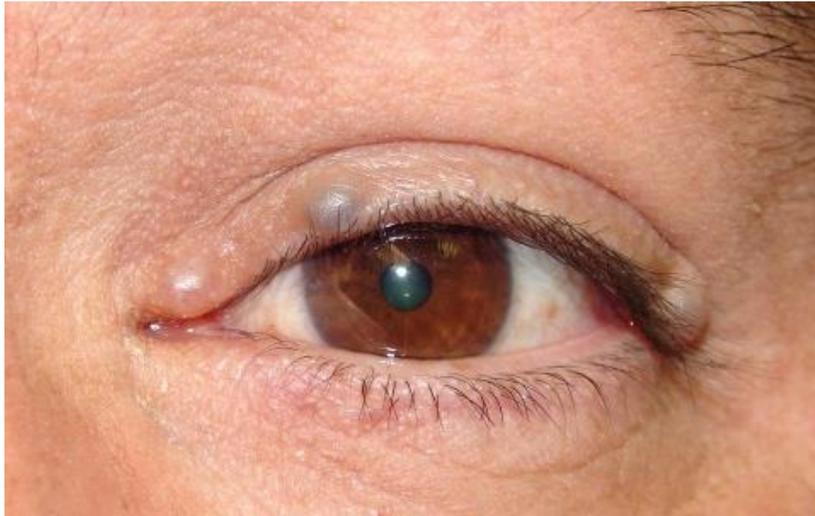
Syringoma

benign neoplasm of the eccrine ducts of the skin



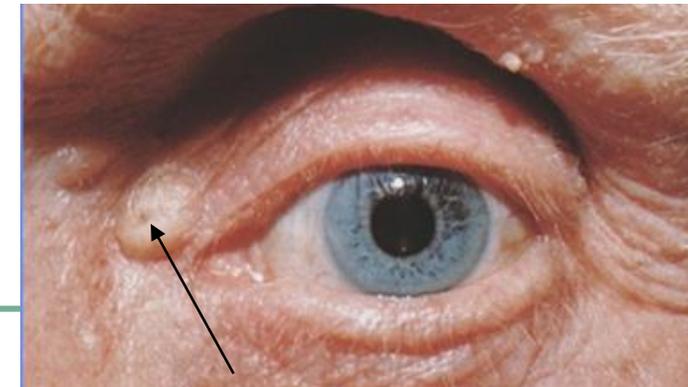
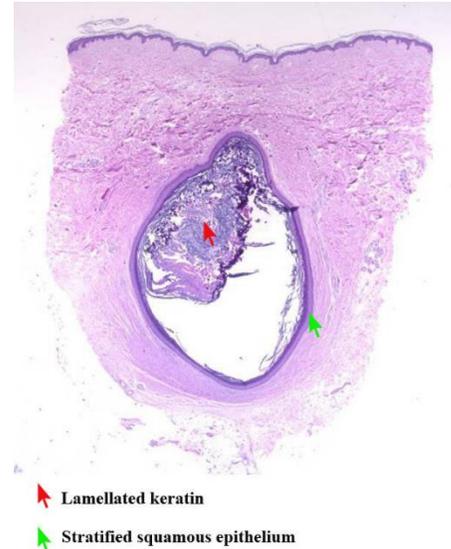
What is this?

Apocrine hidrocystoma = adenoma of the secretory cells of moll



Epidermal Inclusion Cysts/Sebaceous Cyst

- Arise from infundibulum of the hair follicle, or epidermal tissue into the dermis
- Filled with keratin
- Can also be infected
- Remove the entire cyst to prevent recurrence



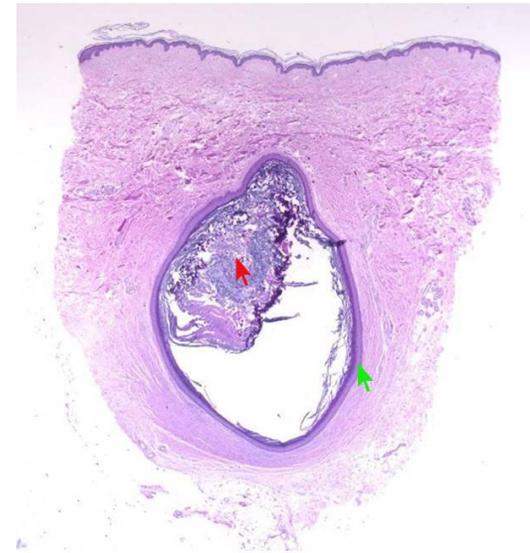
What is this?

Milia



Cyst: White

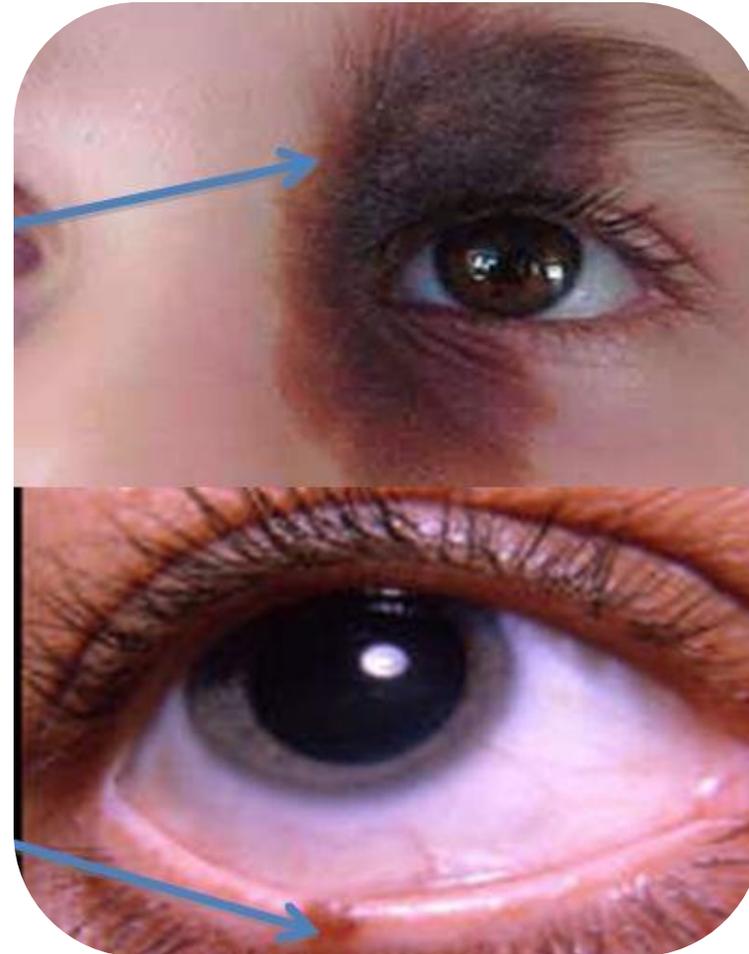
- Epidermal inclusion cysts
 - Milia= multiple tiny epidermal inclusion cysts
 - Usually resolve spontaneously
 - Can needle marsupialize
 - Excise surgically



▲ Lamellated keratin
▲ Stratified squamous epithelium

Benign Melanocytic (Pigmented) Lesions

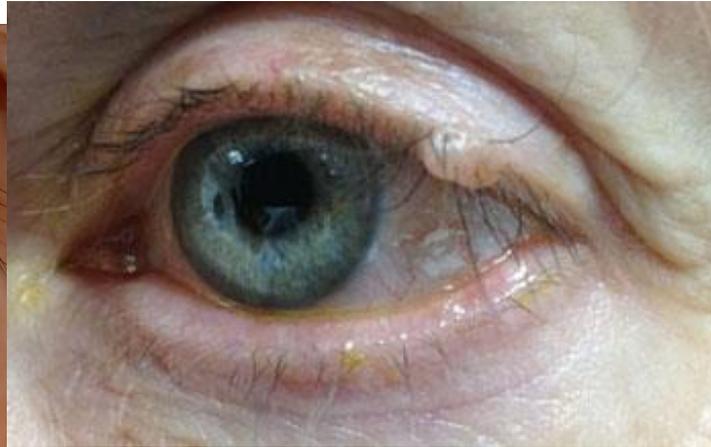
- Freckle (ephelis)
- Nevi
- Lentigo simplex
- Solar lentigo
- Blue nevus
- Dermal melanocytosis
 - nevus of Ota



Different Types of Nevus



Melanotic Nevus

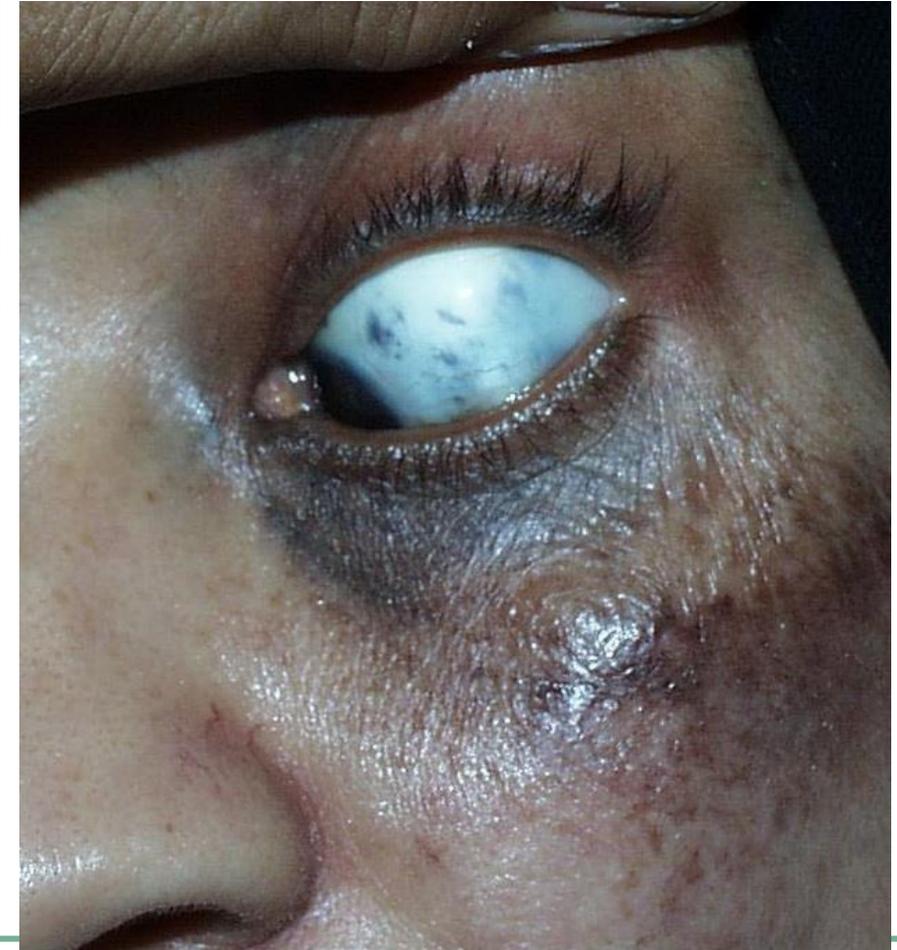


Amelanotic Nevus



Kissing Nevus

Oculodermal Melanocytosis
Aka Nevus of Ota



Usually in older people?

Solar or senile lentigo



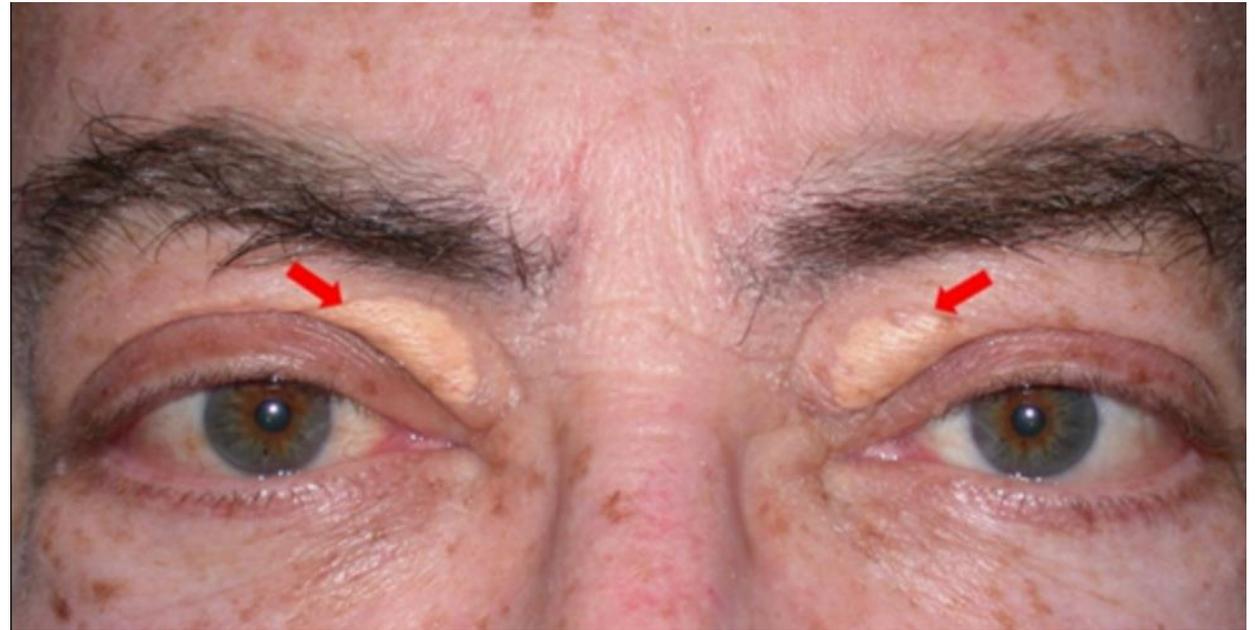
Not as friendly...

Lentigo Maligna

30-50% may progress to
invasive melanoma



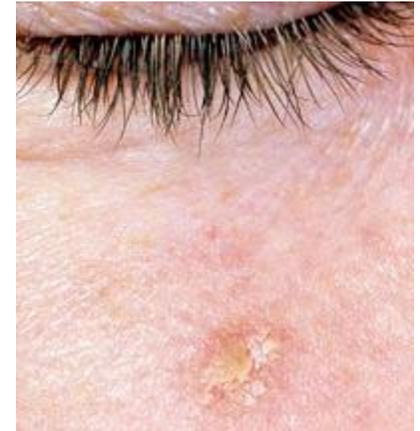
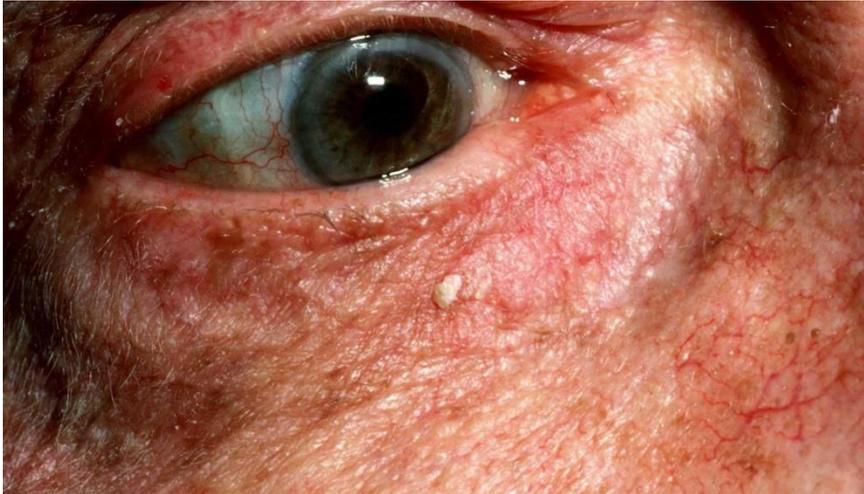
Xanthelasma



May be associated with Erdheim-Chester disease (non-Langerhans histiocytosis)

Not quite a SCC yet...

Actinic Keratosis

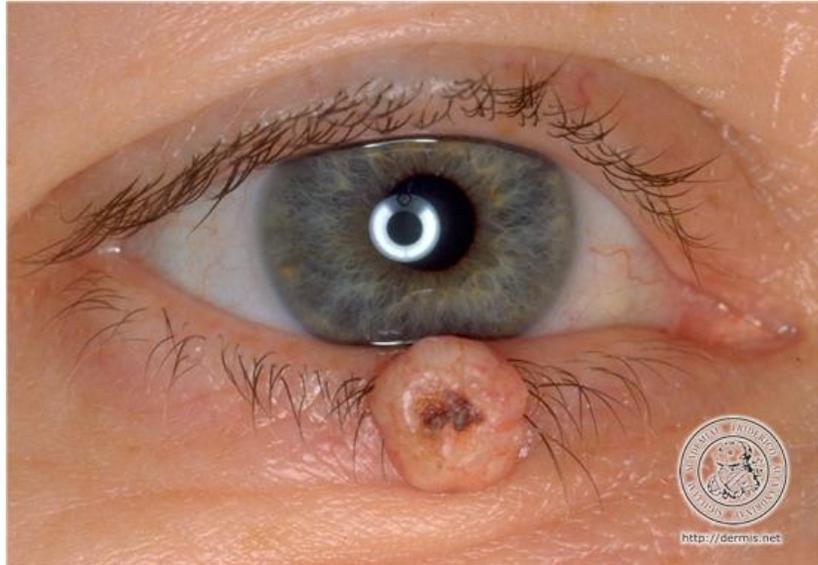


Premalignant/In-situ Epidermal lesions

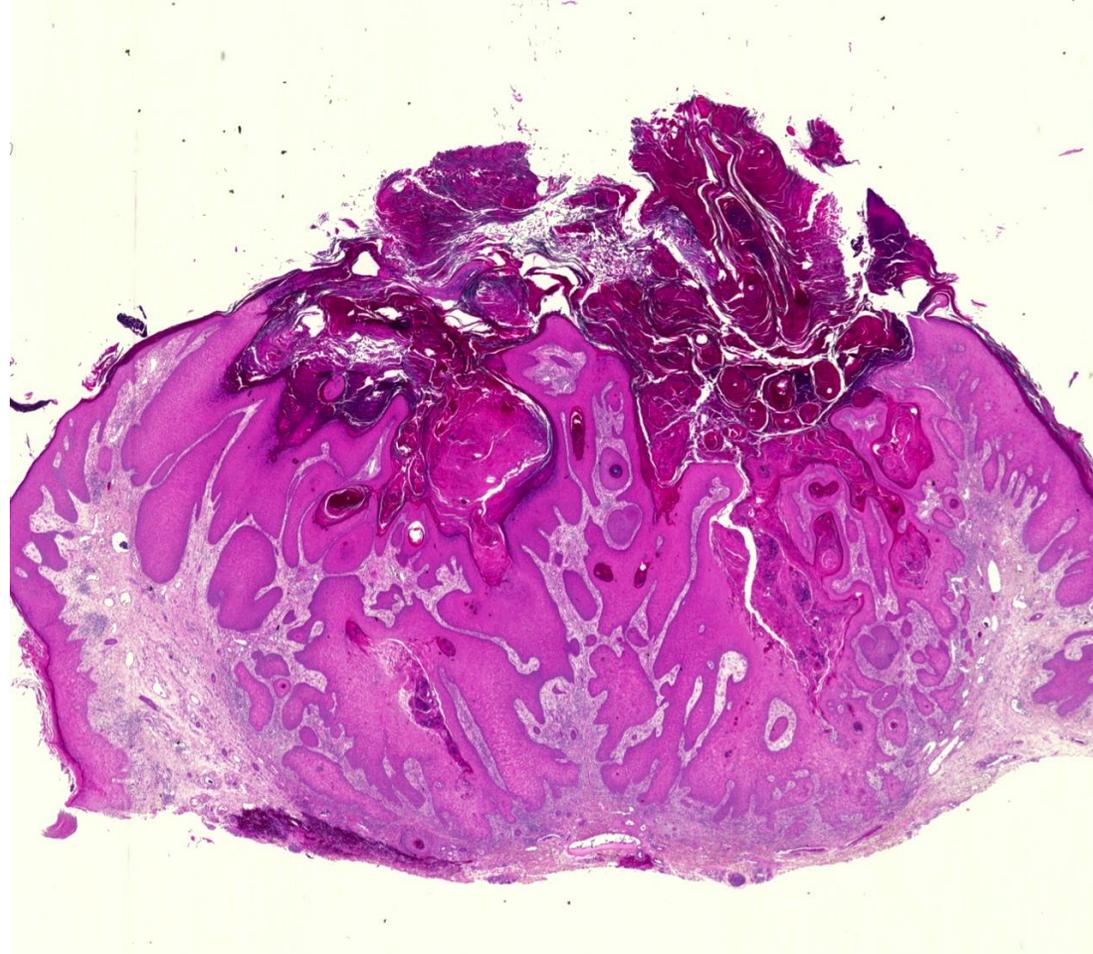
- Actinic keratosis
 - Round, scaly keratotic plaques
 - Can evolve into SCC
 - Treatment:
 - Incisional or excisional Biopsy
 - Topical 5-fluorouracil or imiquimod cream
- Bowen Disease = SCC In Situ
 - 5% progress to SCC
 - Tx: complete excision
- Keratoacanthoma = SCC



Doc, it just took a few days



Keratoacanthoma



- Central keratin
- Resembles SCC but basement membrane intact
- Tx: cryotherapy, curettage and cautery, excision

Malignant Eyelid Neoplasms

Basal Cell
Carcinoma

Squamous Cell
Carcinoma

Sebaceous
Carcinoma

Melanoma

Merkel Cell
Carcinoma

Kaposi
Sarcoma

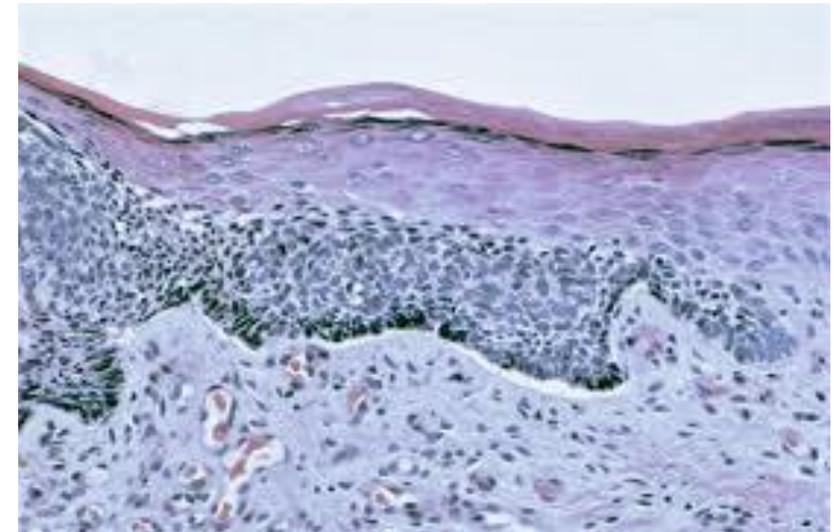
Basal Cell Carcinoma



- Most common eyelid malignancy
- Morpheiform has worst prognosis
- Lower lid > medial canthus > upper lid > lateral canthus

Figure 10-27 Basal cell carcinoma. **A**, Nodular. **B**, Ulcerative. **C**, Pigmented. **D**, Morpheiform. (Courtesy of JM Foster, MD.)

Pathology



Basal Cell Carcinoma

- Noduloulcerative
 - Most common
 - Telangiectasias
 - Pearly borders
- Morpheaform (Sclerosing)
 - Firm, slightly elevated
 - Can't tell margins
 - Worst prognosis
- Local invasion



What syndrome? What drug to treat?

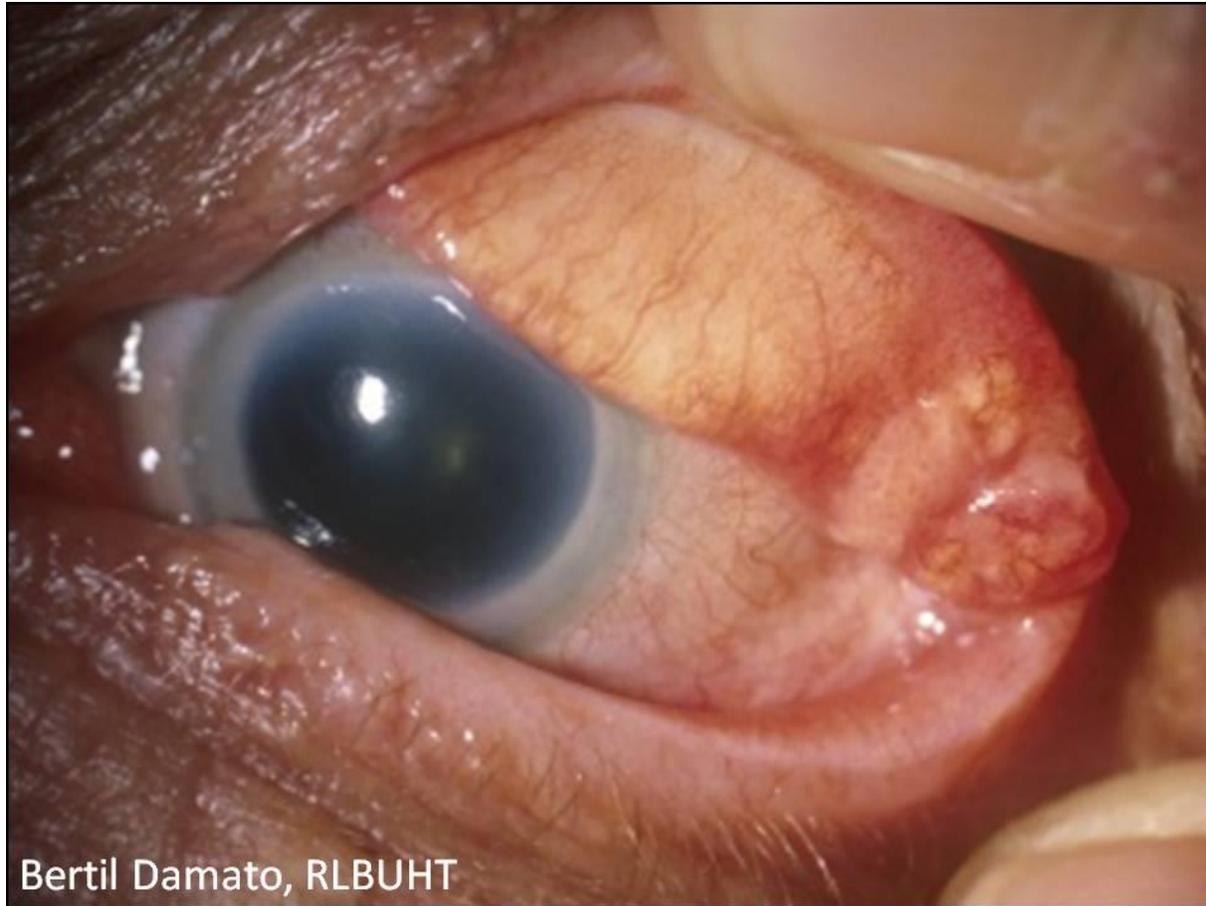
Gorlin Syndrome
(aka Basal cell nevus syndrome)



Treatment:
Hedgehog inhibitor
(vismodegib or sonidegib)

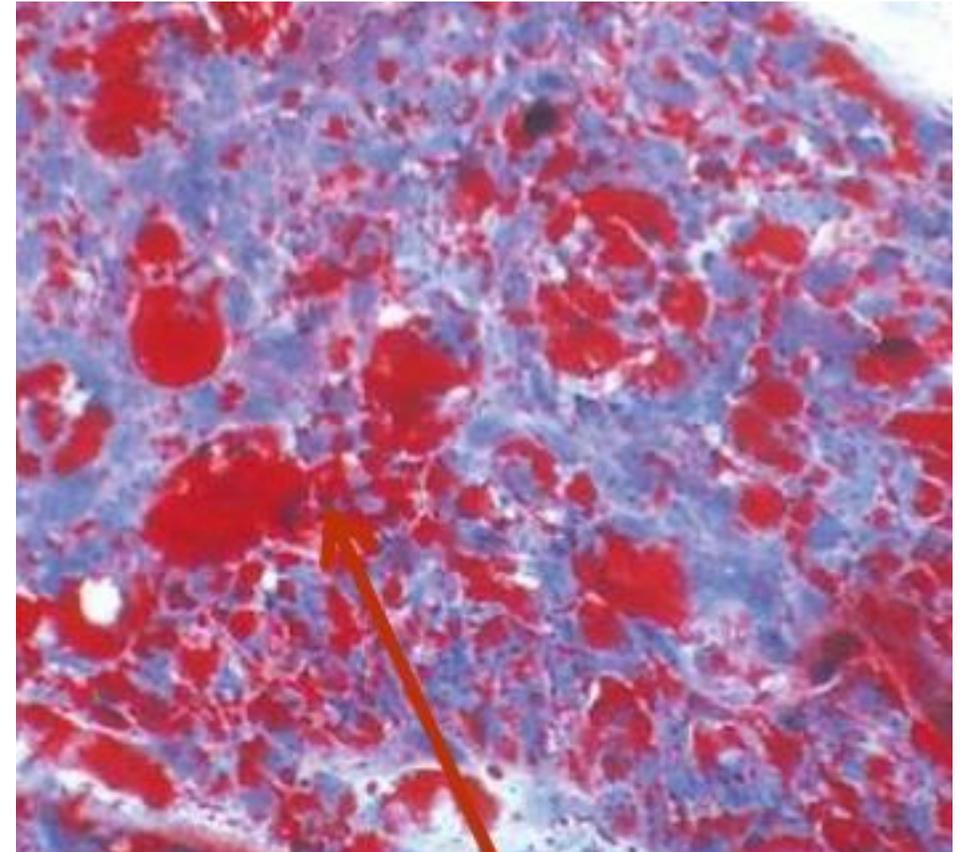
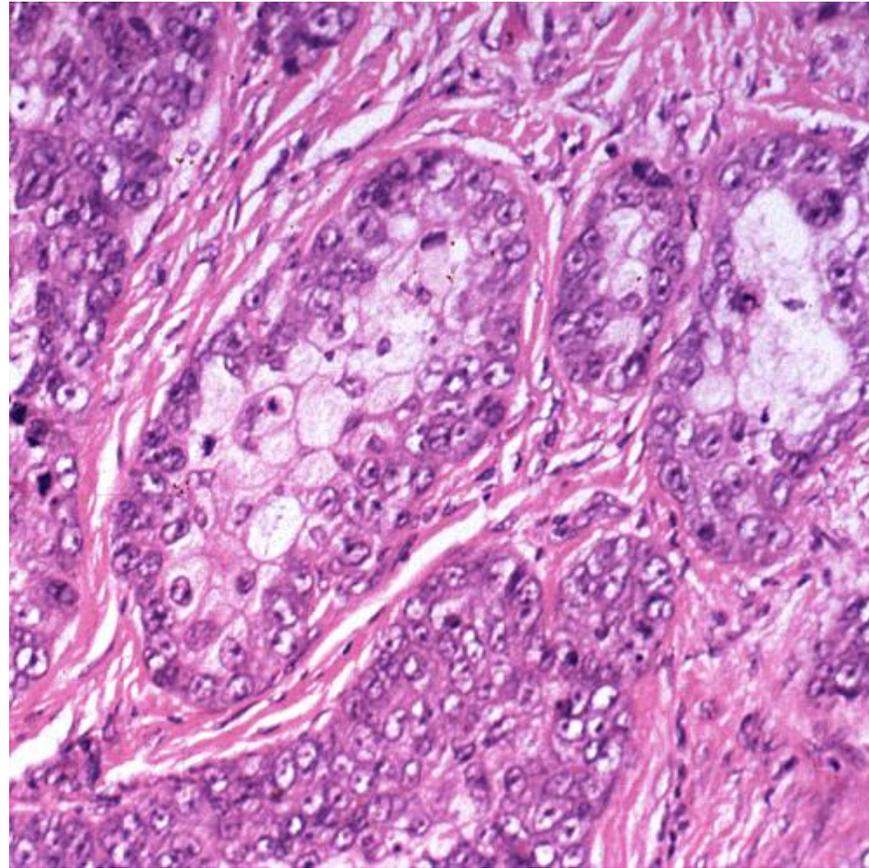
Asian person?

Sebaceous Gland Carcinoma

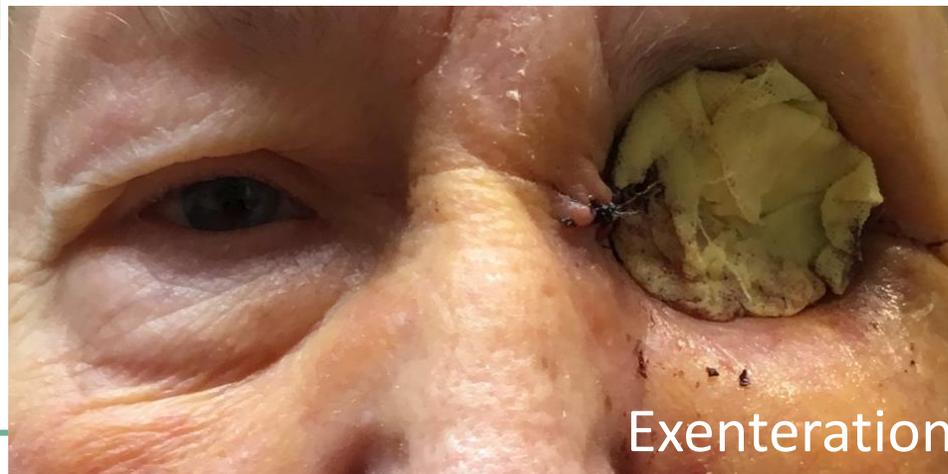
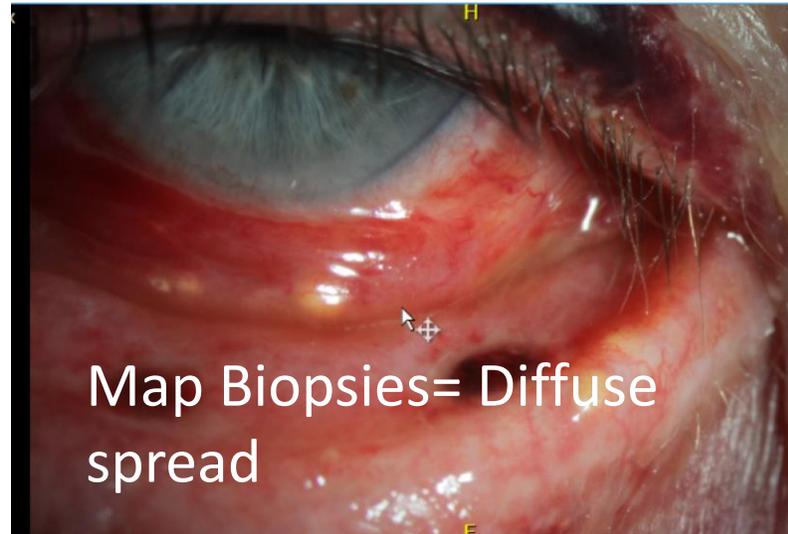


Bertil Damato, RLBUHT

Sebaceous Gland Carcinoma



Aggressive disease



Squamous Cell Carcinoma

- 9% of lid malignancies
 - 40x less common than BCC
- More Aggressive
- May Metastasize
 - Lymphatic
 - Blood-borne
 - Direct extension (nerves)
 - *perineural invasion
 - Look for CN palsies

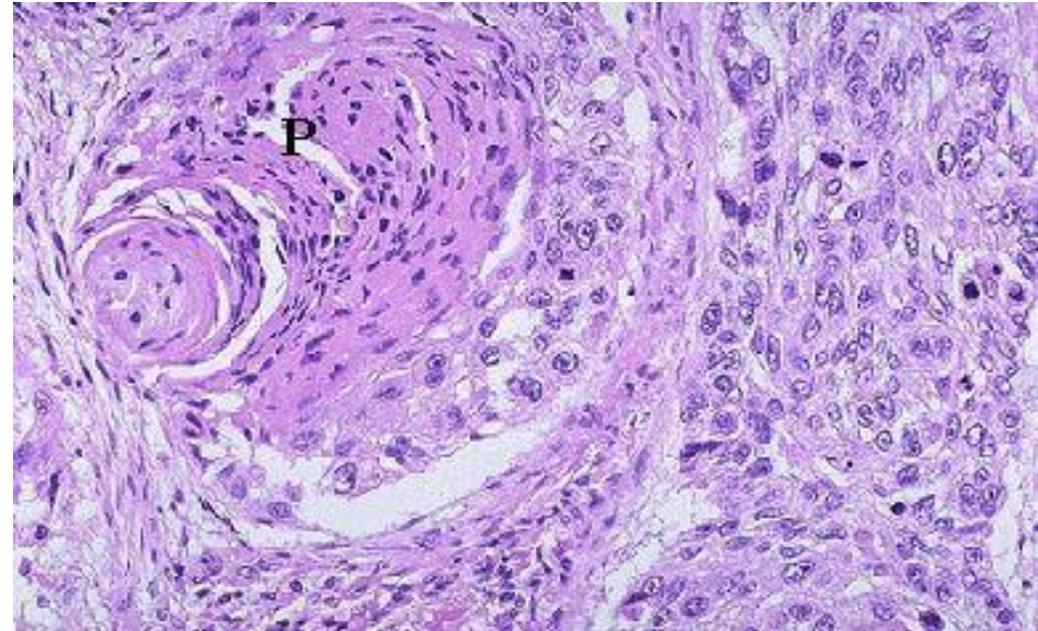


Second most common eyelid malignancy

Needs CT



Keratin pearls

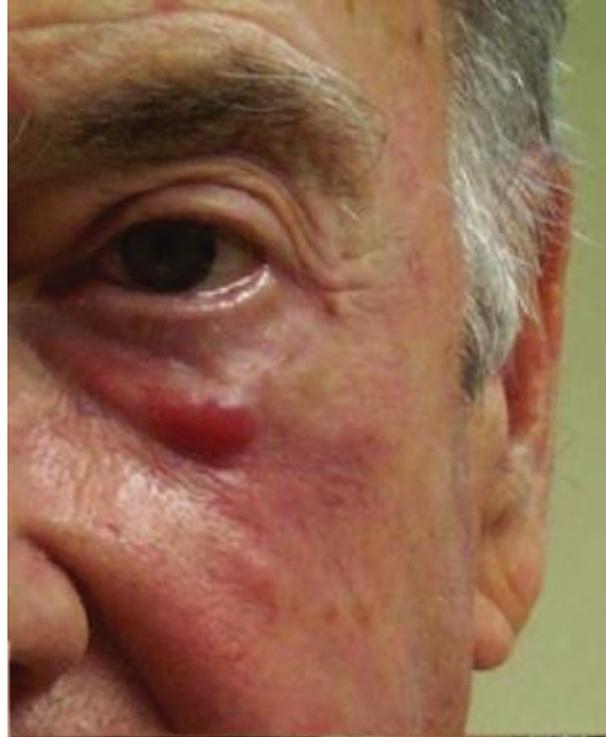


Not a nevus

- Very rare
- Suspect malignancy in any acquired pigmented lesion beyond first 2 decades of life
- Irregular borders
 - May ulcerate/bleed
- >1mm: SLN biopsy
- >1.5mm: systemic workup



Purple...



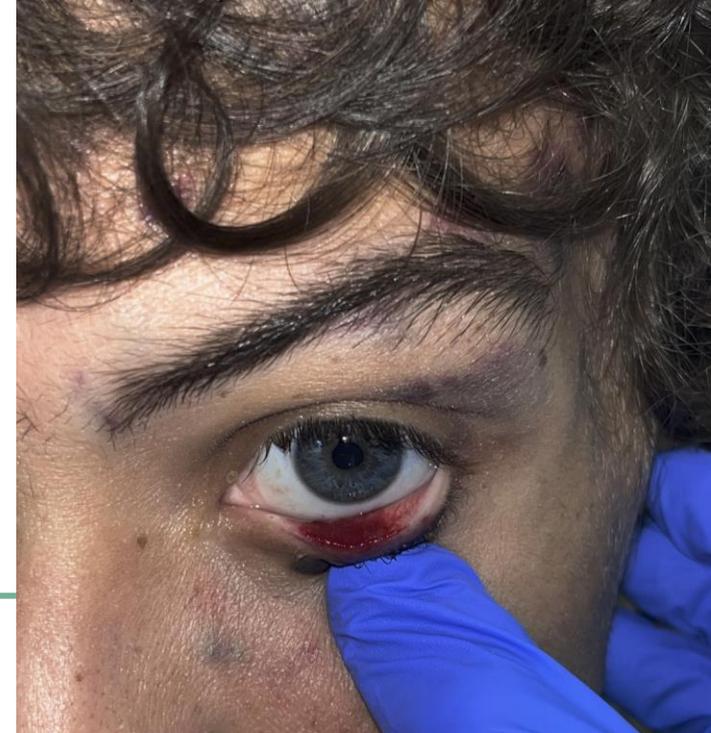
Merkel Cell Tumor - mechanoreceptor

- Neuroendocrine tumor
- Painless
- 33% recur after excision, high risk of mets
- 5-year survival <35%

Kaposi Sarcoma



- Manifestation of immunosuppression
 - AIDS, solid organ transplant recipient, elderly
- Caused by KSHV (HHV-8)
- Composed of spindle cells
 - No mesenchymal derivation
- May regress with HAART. If persistent treatment may include resection, irradiation, cryotherapy, intralesional chemo



Office Visit: What to do next?



Office Visit: What to do next?

Shave Biopsy (same day)



Malignant Eyelid Lesion Treatment

- Surgical Excision
 - MOHS technique—SCC/BCC
 - Frozen sections –SCC/BCC (less preferred)
 - Permanent sections—Sebaceous/Melanoma
 - Eyelid reconstruction
- Exenteration
- Radiotherapy/Chemotherapy
- Cryotherapy

Reconstruction

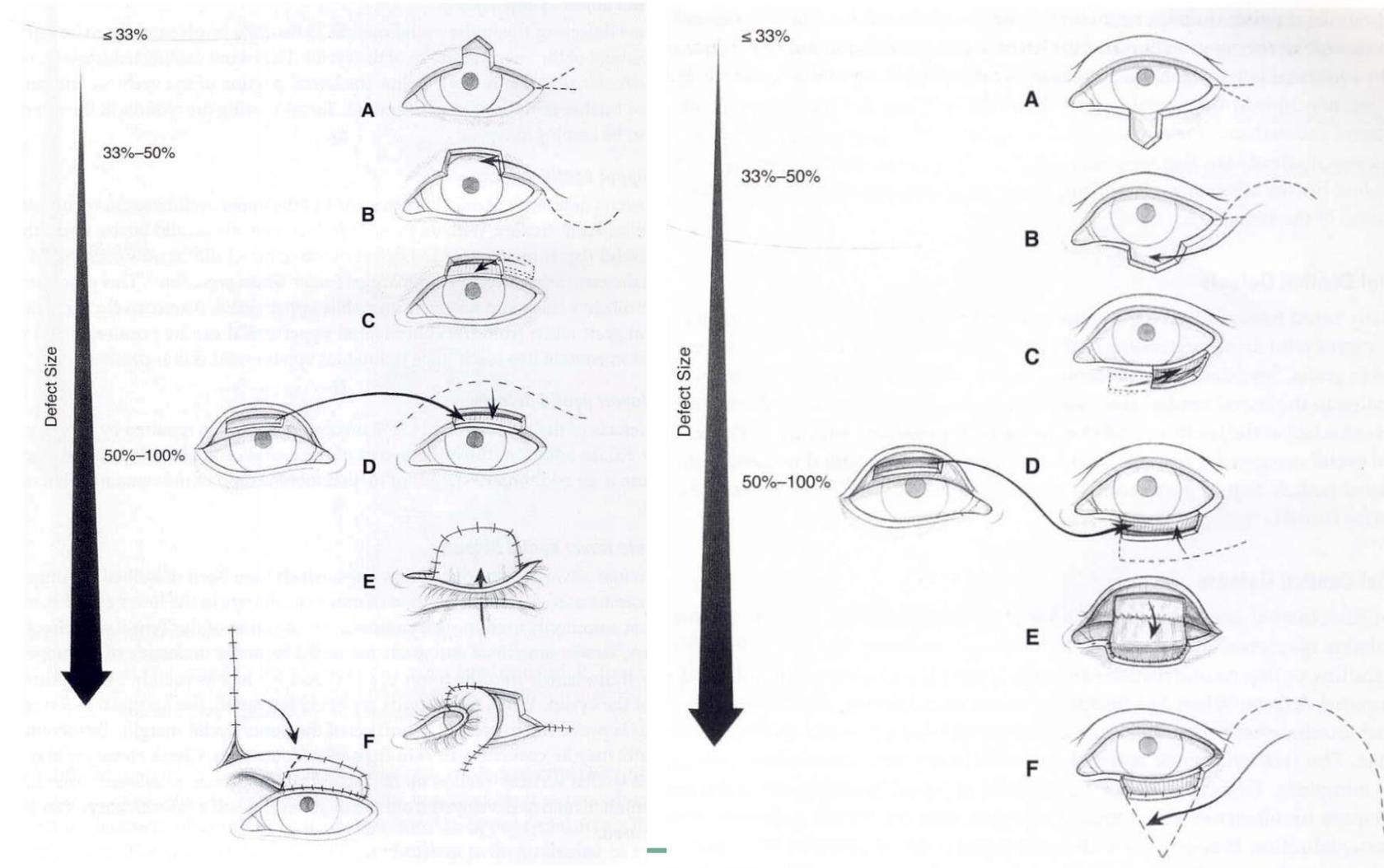


Mohs surgery
Special Processing to Spare Tissue



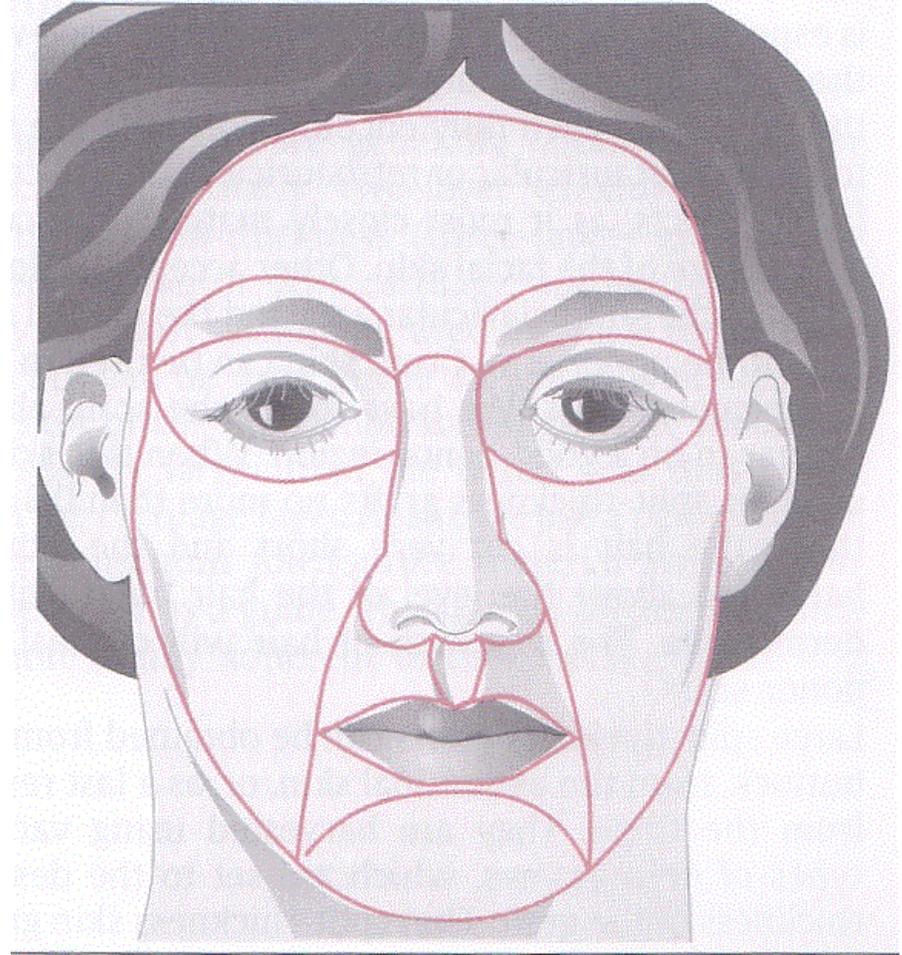
Post Reconstruction

Basic principles of reconstruction



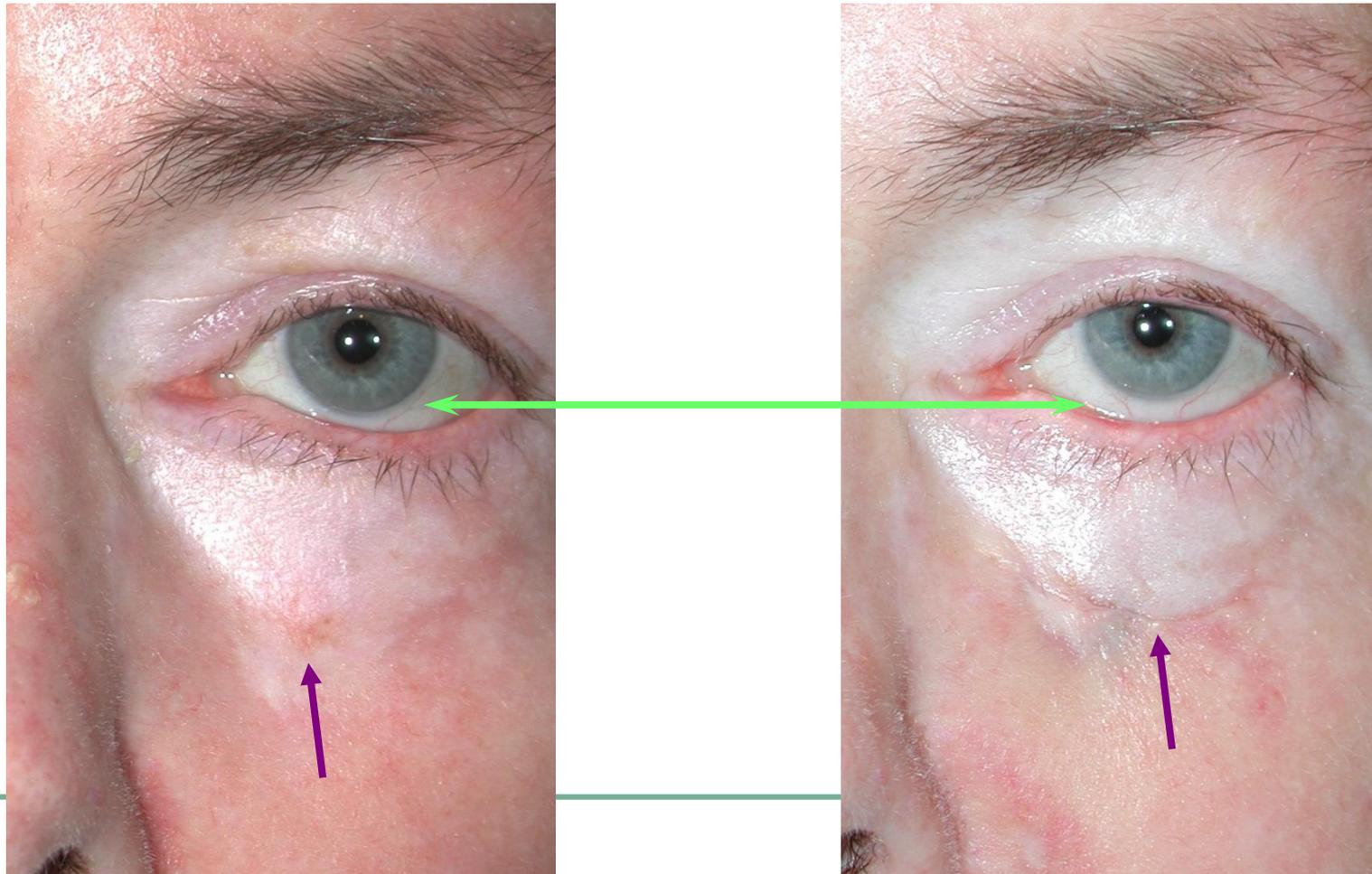
Facial Anatomy- Aesthetic Units

- Know and Respect the Anatomic aesthetic units of the face



Periorbital Reconstruction

Importance of Vectors



Primary Closure: Lower Lid



Primary Closure: Lower Lid



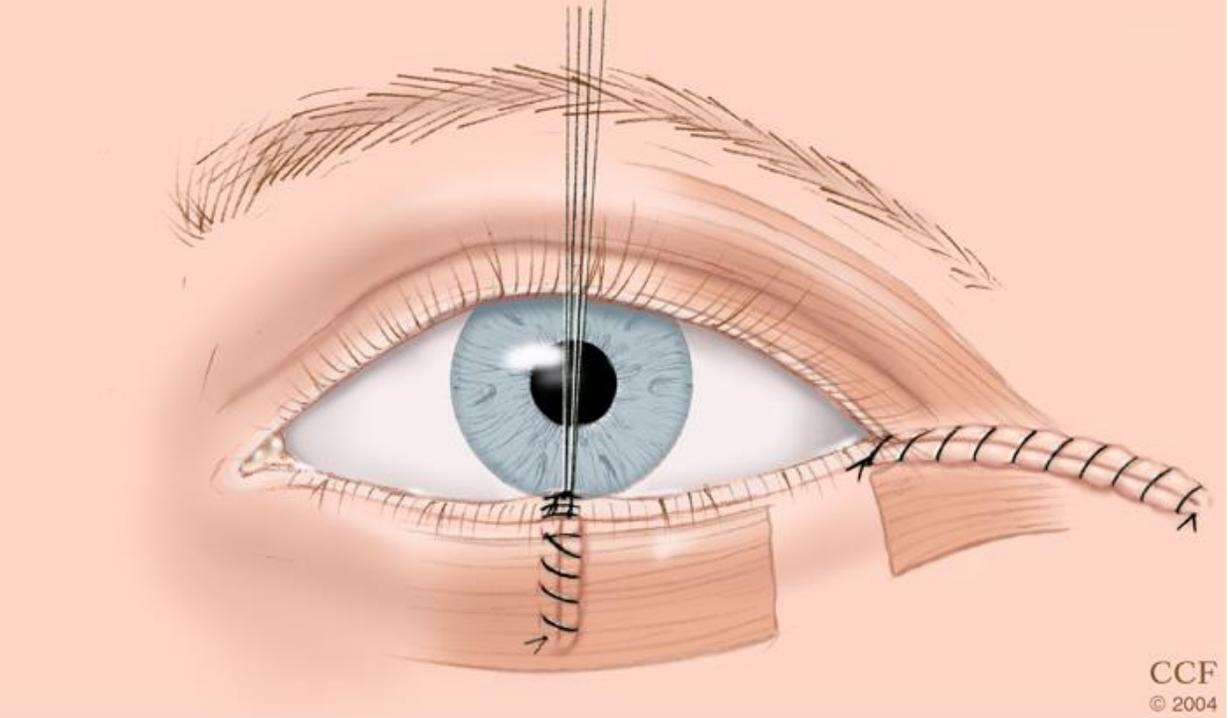
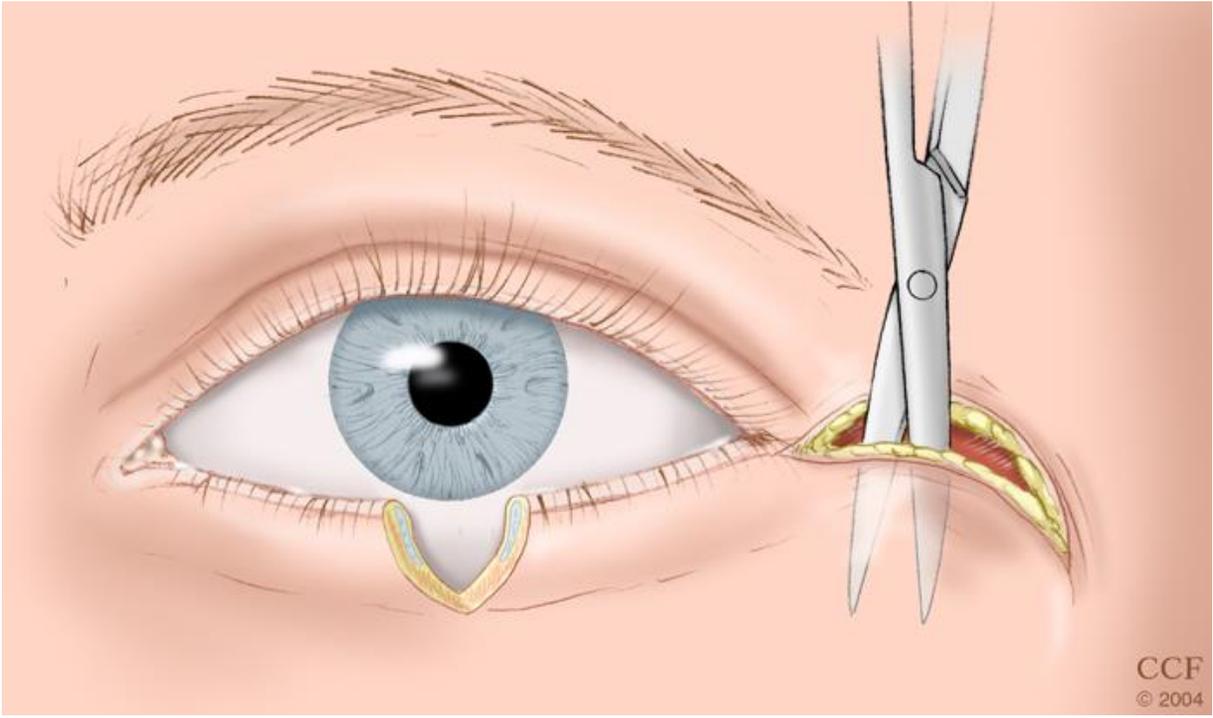
Primary Closure: Brow



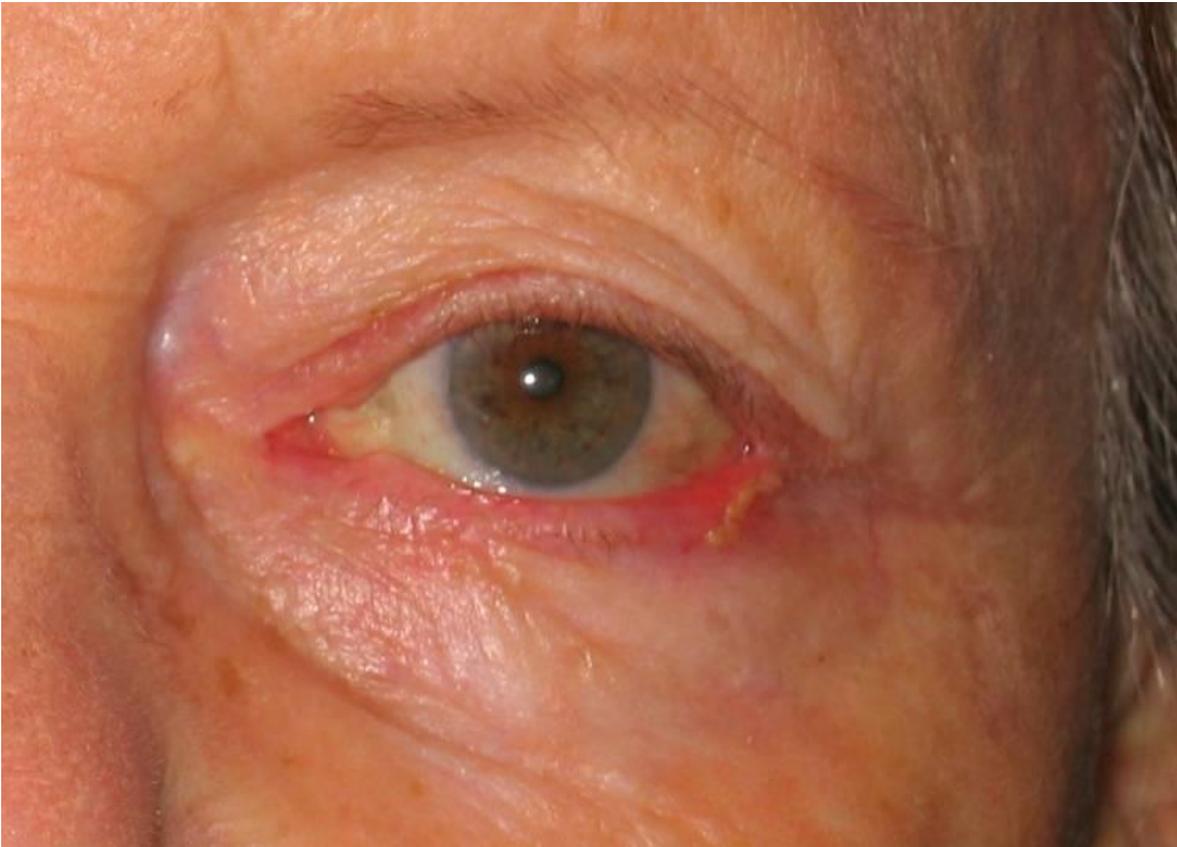
Primary Closure: Brow



Tenzel Semicircular Flap



Tenzel

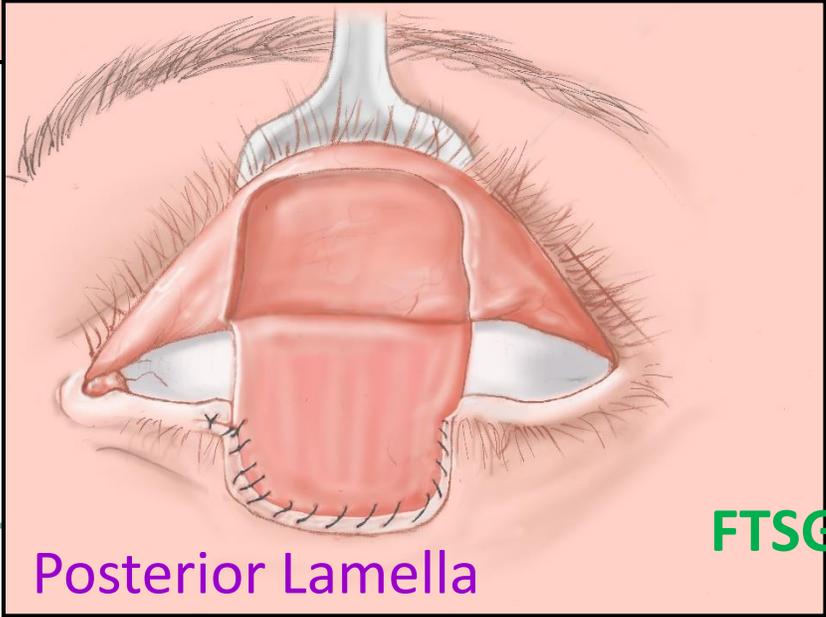
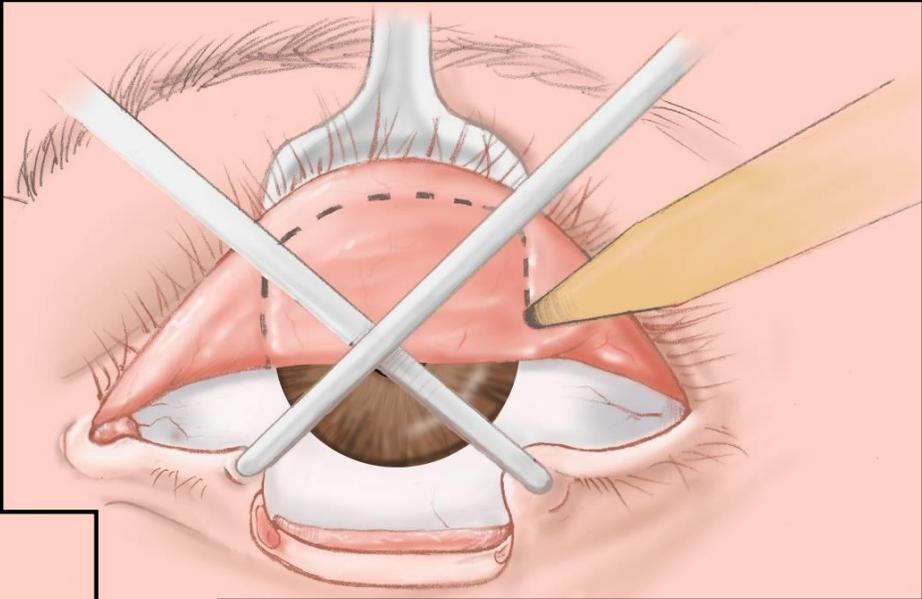
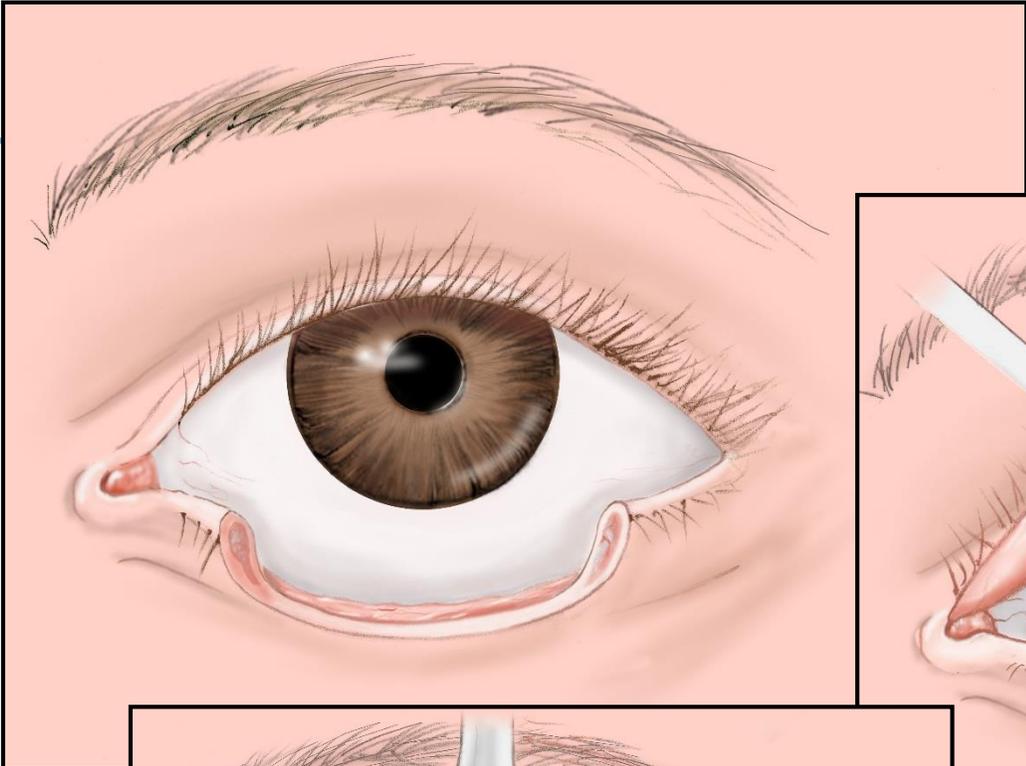


Tenzel



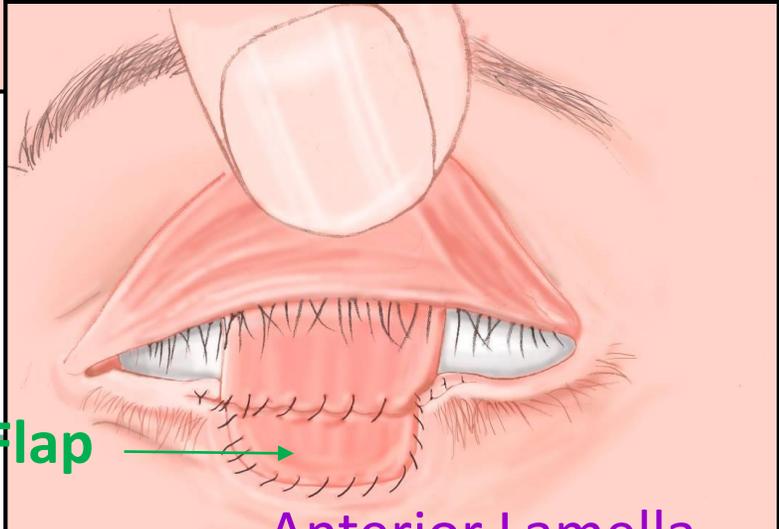
Upper Eyelid

Tarsoconjunctival Flap

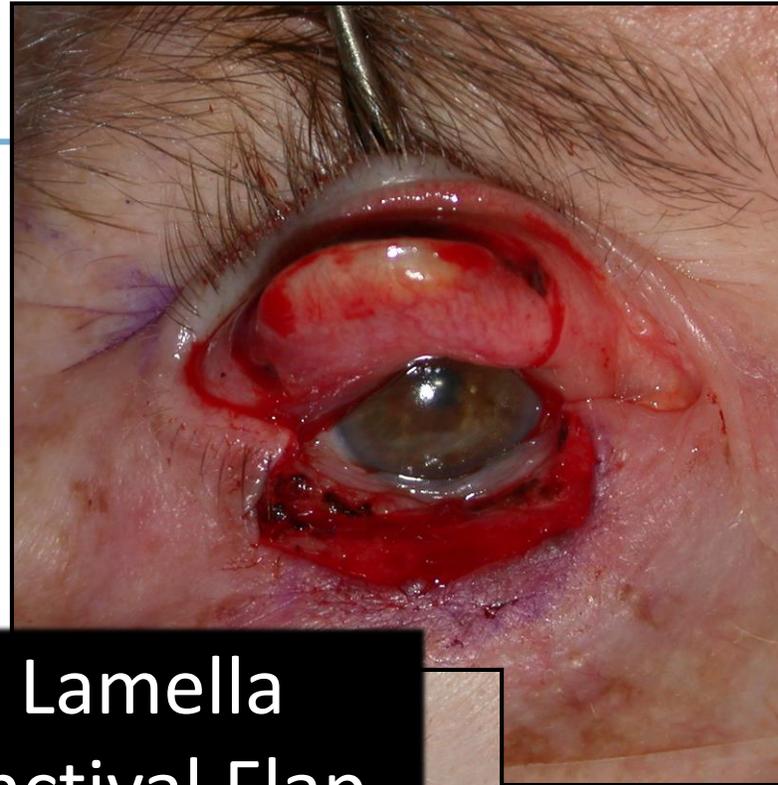


Posterior Lamella

FTSG or Flap



Anterior Lamella



Posterior Lamella
Tarsal Conjunctival Flap



Tarsoconjunctival Flap with Advancement Flap (Hughes flap)

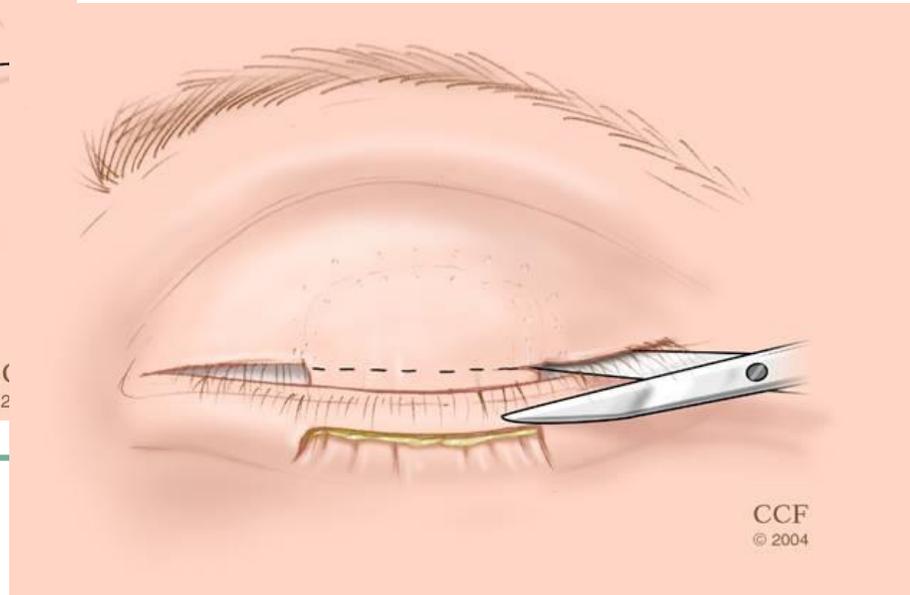
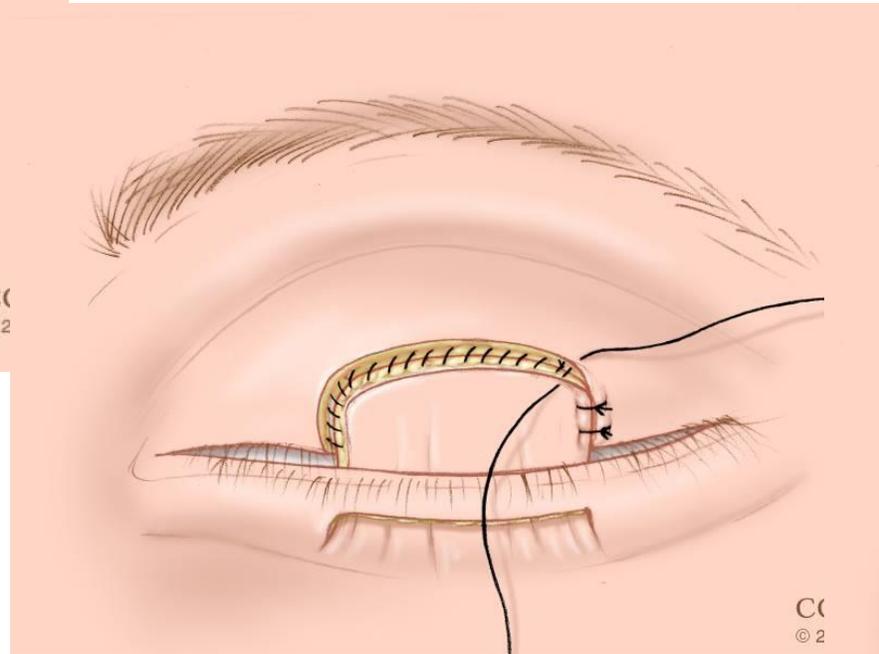
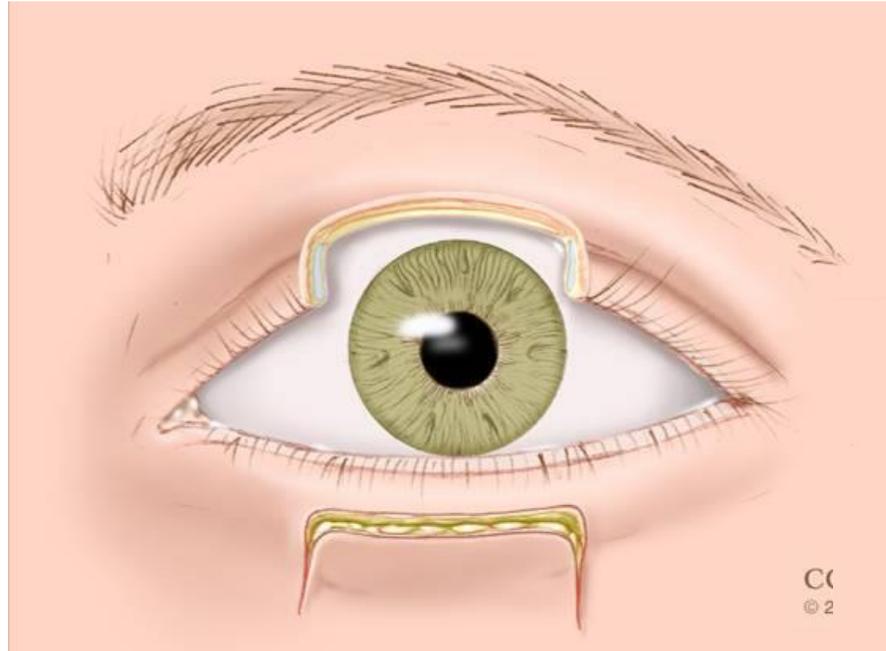


Tarsoconjunctival Flap (Hughes)



Shared Flap for Upper Lid

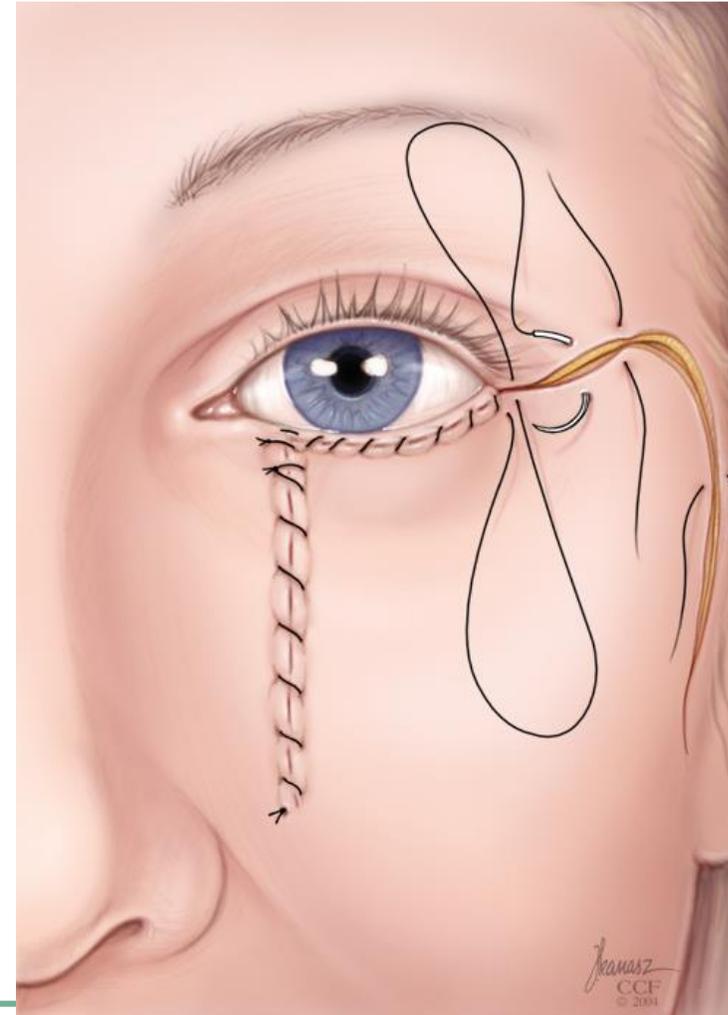
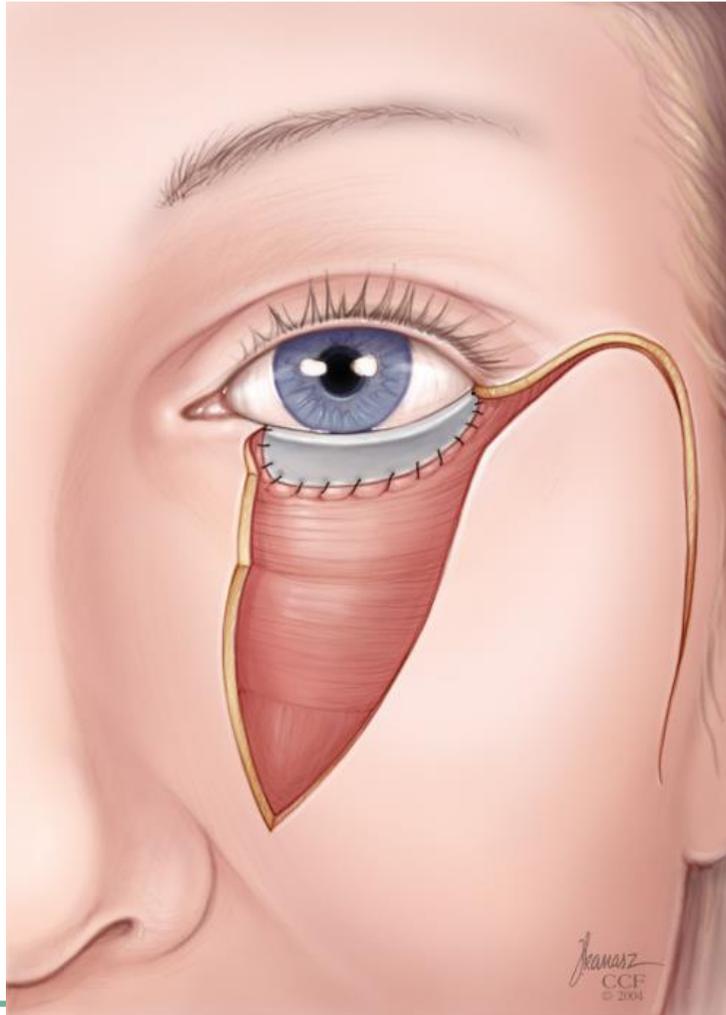
Cutler Beard: Full Thickness



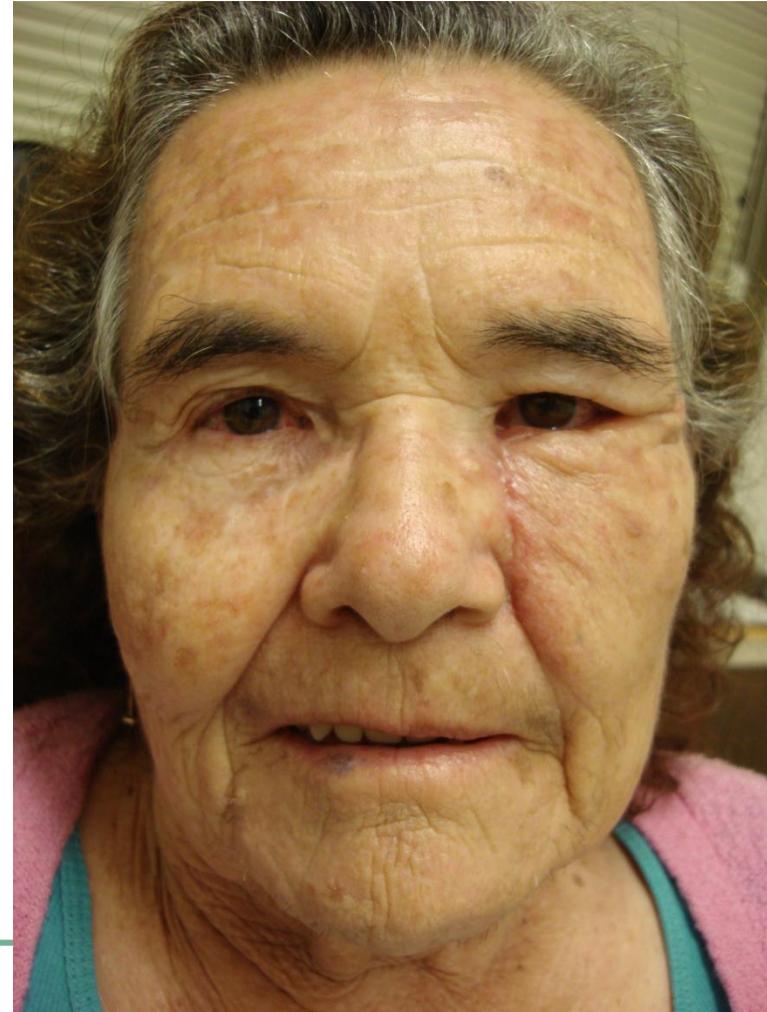
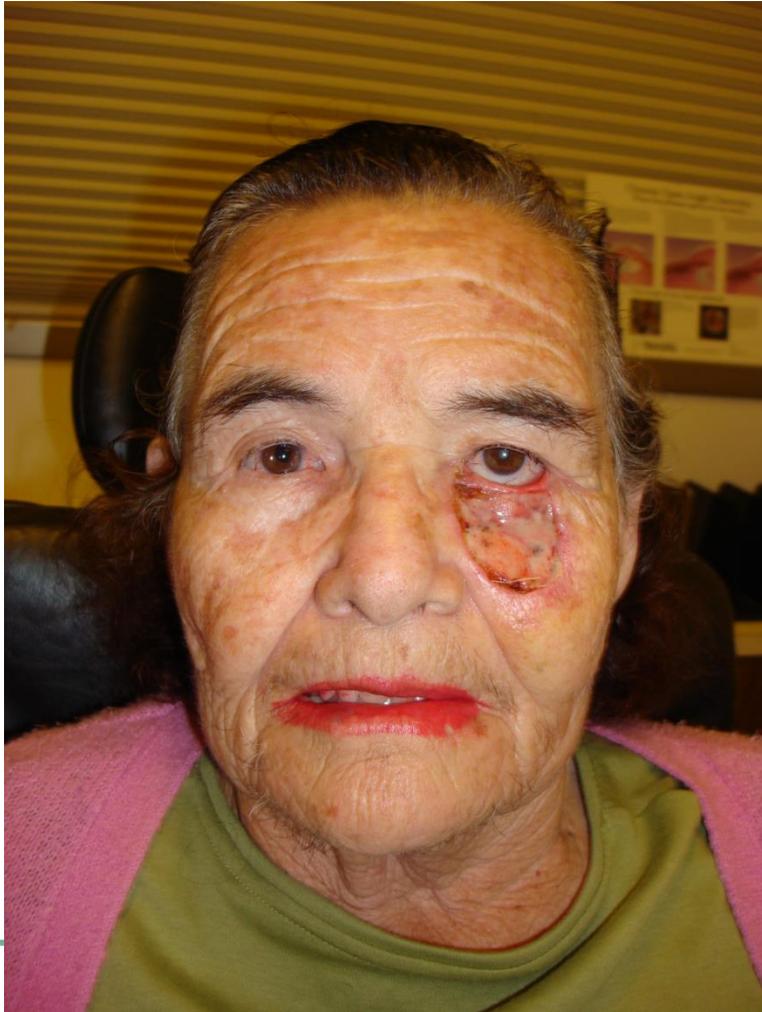
Shared Graft for Upper Lid (Cutler Beard)



Rotational Flap: Mustarde



Rotational Flap Mohs Reconstruction: BCC



Rotational Flap: Forehead



Glabellar: upper and lower lid



Bilobed Flap



Bilobed Flap



Thank You

- Thank you for your time and attention
- Special thanks to Drs. Julian D. Perry and Catherine J. Hwang for many of the patients and photos in this presentation



Questions or Comments?