# Evaluation and Management of Age-Related Eyelid Problems

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#### Disclosure Statement

- Speaker, Craig Lewis, M.D. has a financial interest/agreement or affiliation with Lansing Ophthalmology where he is a shareholder and employed as an oculoplastic specialist.
- I have no financial interest in any of the products discussed.
- Off-label use: I will discuss off-label use of botulinum toxin products.

#### Oculoplastic Specialist

- What is oculoplastics?
  - Specialized field of ophthalmology:
    - Eyelids
    - Tear drain
    - Orbit
  - Medical problems
  - Cosmetic concerns



ASOPRS

## Age-Related Eyelid Problems

#### Age-Related Eyelid Problems

- Droopy upper eyelids
  - Extra eyelid skin
  - Ptotic upper eyelid
  - Droopy eyebrow
- Droopy (loose) lower eyelids
  - Inward turning (entropion)
  - Outward turning (ectropion)
  - Floppy eyelid syndrome
- Eyelid surgery basics
- Q & A



## Upper Eyelid Changes



#### Droopy upper eyelids

- Extra upper eyelid skin: Dermatochalasis
  - Blocks vision
  - Heavy, tired sensation



Eyelid height normal

#### Droopy upper eyelids

- Extra upper eyelid skin: Dermatochalasis
  - Problem: Extra skin hangs over eyelid
  - Cause: Time + gravity + movement of eyelids
  - Treatment: Blepharoplasty surgery

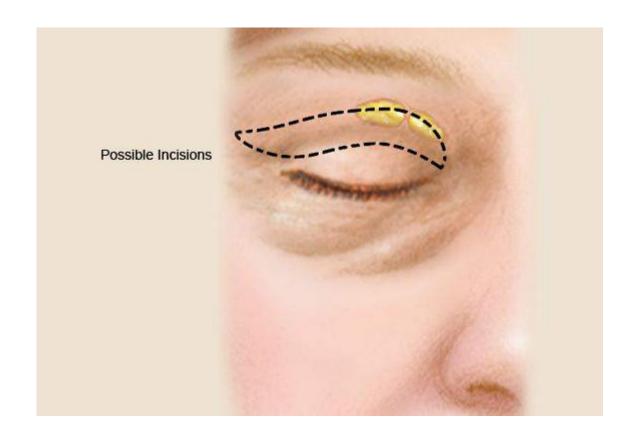


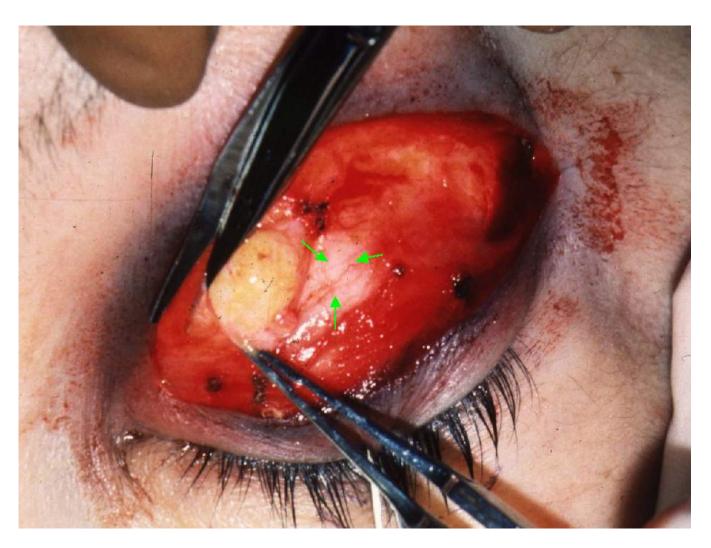
### Droopy upper eyelids

- Blepharoplasty surgery
  - Treats extra skin hanging over eyelid
  - Removes redundant skin and extra fatty tissues



- Steps:
  - Mark skin
  - Remove flap of skin and orbicularis muscle
  - Open orbital septum to remove fat if needed
  - Close skin





#### Potential Benefits of Surgery

- Side vision improved
- Reading vision better (more light)
- Less strain by not lifting brow
- Rested appearance

#### Possible Complications

- Hemorrhage
- Lagophthalmos
- Retraction
- Under-correction
- Over-correction
- Ptosis
- Web
- Crease





Before



After



Before



After

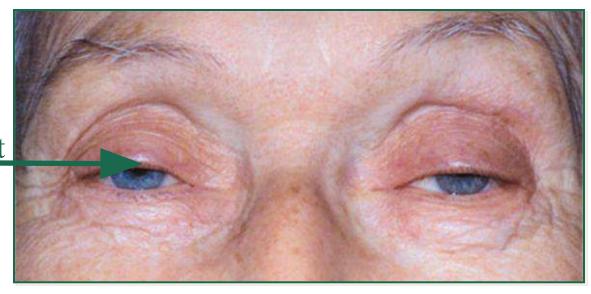
Drooping of eyelid due to weakness of the lifting muscle.



Excess skin

Weak lifting muscle

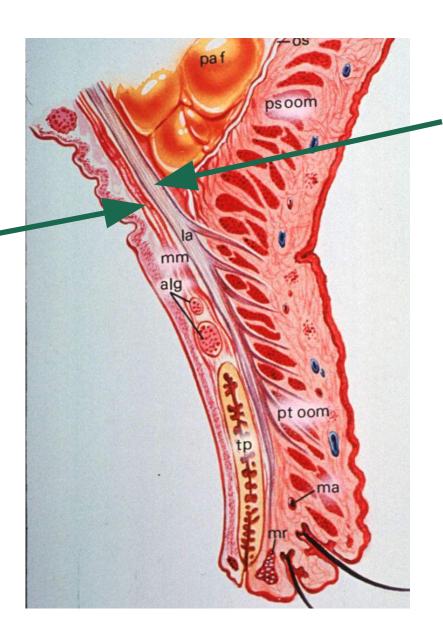
- Ptotic upper eyelids
  - Blocks vision
  - Tired sensation, often worse in evening
  - Brow aches



Eyelid no<u>t</u> open enough

- Droopy upper eyelids
  - Problem: Eyelid does not open far enough to see well
  - Cause:
    - Most common: gradual stretch or dehiscence of levator palpebrae superioris or Muller's muscle
    - Other causes, some serious





Levator palpebrae superioris

Muller's muscle

- Potential serious causes:
  - Muscle disorders
    - Myasthenia Gravis, Lambert-Eaton Syndrome
  - Nerve disorders
    - Multiple sclerosis, compression from mass (lung cancer)
  - Blood vessels problems
    - Aneurysm (CNIII palsy), Diabetes
  - Orbital disease
    - Orbital mass, Graves Eye Disease

- Potential serious causes:
  - Warning signs:
    - Droopy lid + double vision
    - Droopy lid + pain/headache
    - Suddenly droopy lid



- Ptotic upper eyelids
  - Most common cause:
     stretching levator muscle
  - Treatment: Eyelid ptosis repair surgery
- Eyelid ptosis repair surgery
  - May be done from under the eyelid or through the skin



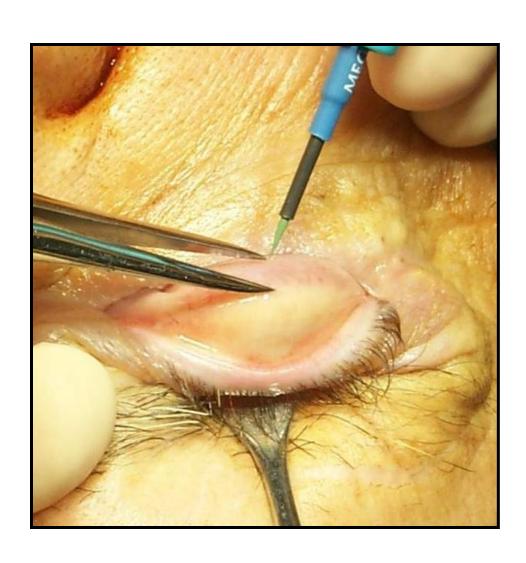


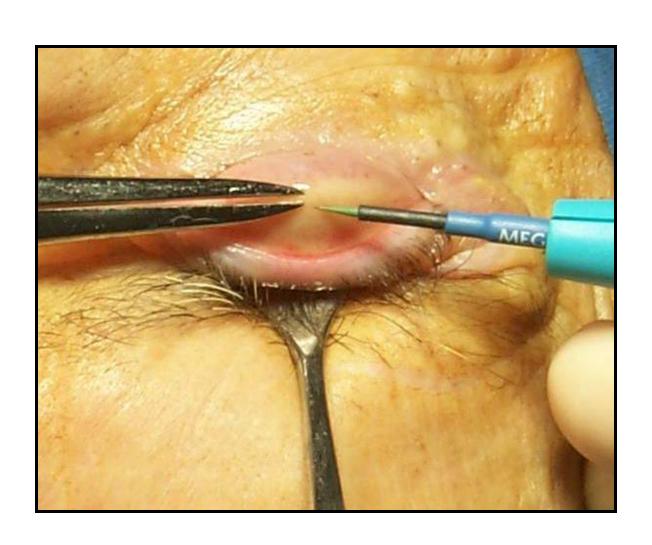
#### Blepharoptosis surgery

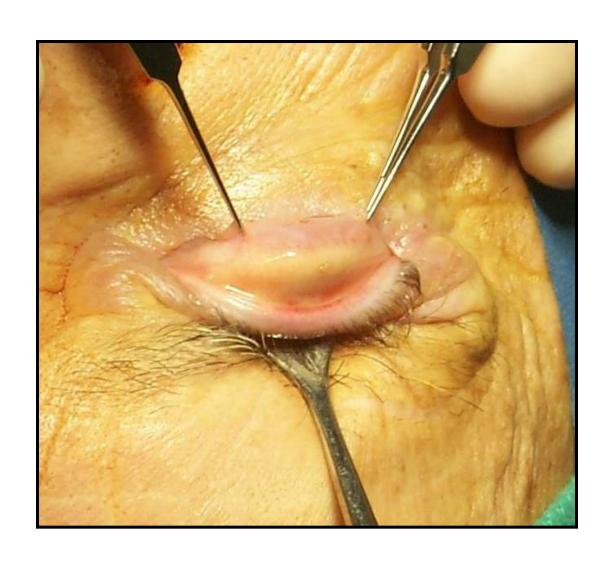
- Internal approach: CML
  - Conjunctivo-mullerectomy-levator resection
  - All from inside, no skin incision
  - Advantages: natural contour, no skin scar, more predictable
- External approach: ELR
  - External levator resection
  - From outside through bleph-type incision
  - More powerful for very droopy eyelids





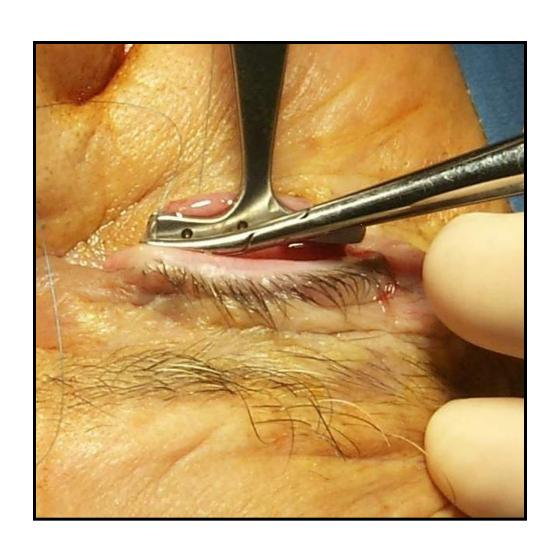


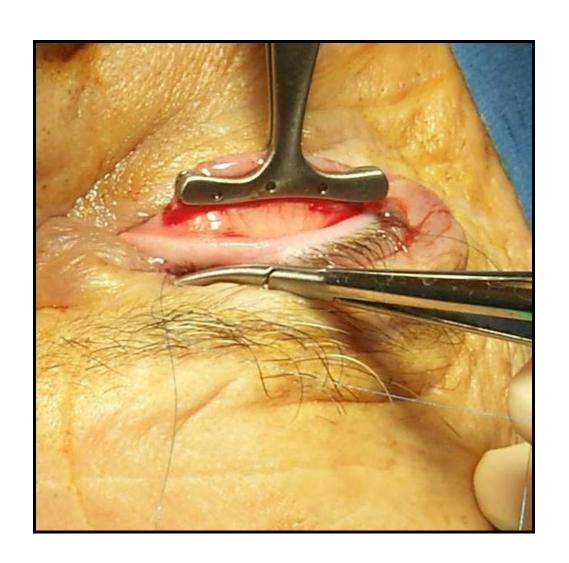


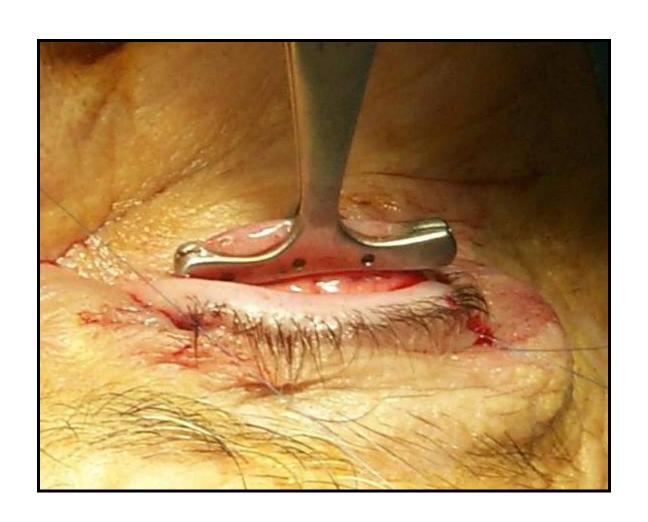














## Ptosis repair: ELR

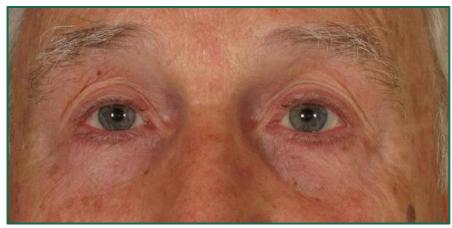




Before After

## Ptosis repair: CML





Before After

### Ptosis repair: CML





### Ptosis repair: CML



Before After

#### Ptosis surgery: Complications

- Bleeding
- Retrobulbar hemorrhage: rare after CML
  - Orbital septum not violated
- Lagophthalmos
- Retraction
- Under-correction: most common complication
- Over-correction: rare

#### Congenital Ptosis

- Causes:
  - Poor development of levator muscle
  - Horner's syndrome
  - Many others
- Problems:
  - Amblyopia
  - Abnormal head position



Photo from: http://www.aapos.org/terms/conditions/90

#### Congenital Ptosis

#### • Challenges:

- Poor levator muscle function cannot be directly improved
- Lagophthalmos may worsen after ptosis repair
- Cosmetic concerns



Photo from: http://www.aapos.org/terms/conditions/90

#### **Eyebrow Position**

- Determine normal for each individual
- Maintain facial expression
- Proportional to face





#### Eyebrow ptosis

- Droopy eyebrow skin
  - Blocks vision, especially to the side
  - Heavy sensation



#### Eyebrow ptosis

- Droopy eyebrow skin
  - Problem: Extra tissue from eyebrow hangs over eyelid
  - Cause: Time + gravity
  - Treatment:
    - Eyebrow ptosis repair surgery
    - BOTOX® brow lift



#### **BOTOX®**

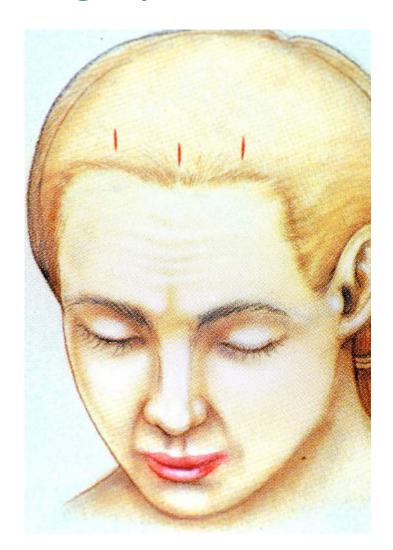
- BOTOX®
  - Purified **BO**tulinum **TOX**in
  - Temporarily weakens muscles
    - 3 month effect per treatment
  - Indicated for wrinkles between brows (glabellar area)
  - Black-box warning 2009
  - Other similar drugs:
    - Dysport®, Myobloc®, Xeomin®





#### Eyebrow Surgery

- Above eyebrow
- Above hairline
- Hairline
- Forehead Crease
- Internal (through eyelid surgery opening)



#### Eyebrow Surgery









After

#### **Brow Surgery**



Before



















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#### **Droopy Lower Eyelids**

- Eyelid entropion
  - Lower eyelid that rolls in
  - Problem: Irritation as lashes rub against eye
  - Cause: Loose eyelid with spasm of orbicularis oculi muscle
  - Treatment:
    - Usually surgery
    - BOTOX® (FDA approved)



#### **Eyelid Problems**

- Eyelid ectropion
  - Lower eyelid that turns out
  - Problem: Irritation or tearing as eyelid doesn't protect eye
  - Causes:
    - Usually loose eyelid (time and gravity)
    - Mechanical (ex: tumor)
    - Cicatricial (ex: dermatitis, post-surgical)
  - Treatment: Drops or ointment, often surgery



#### Cicatricial Ectropion



Lower eyelid blepharoplasty complication

#### Cheeklift



Loose lower eyelids

# Cheeklift and Upper Eyelid Blepharoplasty





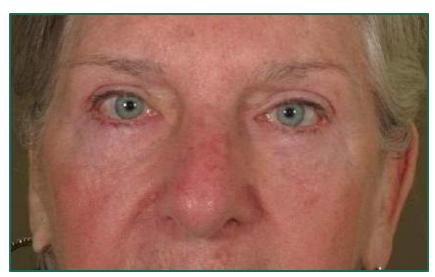


1 month after

# Cheeklift and Upper Eyelid Blepharoplasty



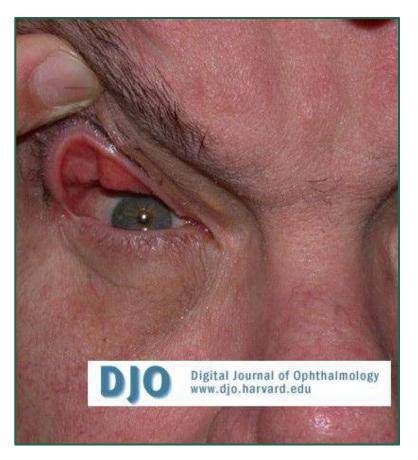
Before



1 year after

#### **Eyelid Problems**

- Floppy eyelid syndrome
  - Chronic eye irritation due to extremely loose eyelids
  - Often worse on 'downhill' side
    - Eyelid turns over while sleeping
  - Strong association with obstructive sleep apnea
  - Treatment: Shield eyes at night, surgical eyelid tightening, identify and treat OSA



## FAQs and Eyelid Surgery Basics

#### **FAQs**

- •Will insurance cover surgery costs?
- •Where is surgery performed?
- •What type of sedation is used?
- •How long does surgery take?
- •How long is recovery?

#### **FAQs**

- Does insurance cover eyelid surgery?
  - Lower eyelid malpositions: Yes
  - Upper eyelid/eyebrow surgery: Maybe...
    - Must meet criteria
    - Varies by insurance carrier

#### **FAQs**

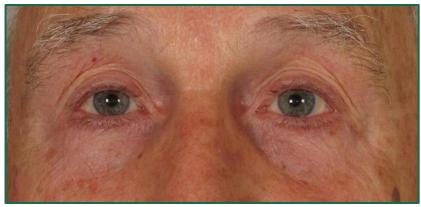
- Medically necessary upper eyelid surgery criteria:
  - 1. Causes problem with comfort or vision
    - Blocks vision, heavy, tired feeling
    - No good: Hard to put on make-up, looks bad in mirror
  - 2. Blocks vision by visual field test
  - 3. Photos: Eyelid skin drapes over eyelashes OR eyelid crosses near pupil

- Out-patient surgery at surgical center or hospital
- Monitored anesthesia care most common
- ~1/2 hour per eyelid surgical time



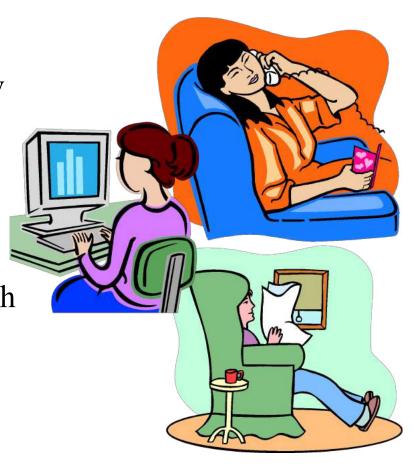
- Comfort/recovery
  - Most patients have some discomfort/pain for a few days after surgery
  - Usually patients feel fine within 2-4 days after surgery
  - Bruising/swelling universal





- Scars
  - Any skin incision will leave a scar
  - Eyelid skin is thin & scars are usually minimal
- Follow-up
  - 1 week post-op
    - Remove any stitches
  - 6-8 weeks follow-up visit

- Down time
  - Plan for two week recovery
  - Vision may be blurry for several days
  - Swelling/bruising for 1-3 weeks
  - During recovery: read, watch
     TV, listen to music, chat on
     phone all OK



# Eyelid & Eyebrow Surgery Early <u>Recovery</u>

- Inactivity for 2 to 3 days
- Ice packs for 2 days
- Ointment to suture line
- Can usually drive in 2-3 days
- Avoid strenuous activity for 2 weeks

## Eyelid & Eyebrow Surgery Late Recovery

- "Tight" sensation in eyelid area
- Incision line blends after 3-5 months
- Some swelling in upper & lower lid area

#### Questions and Answers

Thank you!