AESTHETIC AND OCULOPLASTIC EYECARE IN OPTOMETRIC PRACTICE: OPPORTUNITY ABOUNDS

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Disclosures
Dr. Eiden
(consulting, lecturer, research, or financial interest*)

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Husband, Jeff McClimans works for OPTOS, North American

Demographic Reality

Aging of America is a fact

- In 1900, only 13% of the population was age 50 and over. In 2002, it was over 27%. Today 1 of 3 Americans is 50 or older!

- The size of the 50+ population will more than double in the next 30 years.

- A baby boomer turns 60 every 7.5 seconds!


Resisting Aging is an Important Value to “Baby Boomers”

Disclosures
Dr. Albrecht

OPHTHALMIC PLASTIC, RECONSTRUCTIVE AND FACIAL SURGEON
BOARD-CERTIFIED BY AMERICAN ACADEMY OF OPHTHALMOLOGY

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Aesthetic Eye Associates @: Aesthetic Eye Associates @:
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AGE RELATED CHANGES

• Enzymatic cell damage
• Tissue Descent Due To Gravity
• Deflation Due To Fat Atrophy
• Bone Density Changes Causing lowering and shrinkage of the inferior orbital rim, as well as the fat pouches outward

Facial Aging

• Thinning of the dermis and atrophy of fat pads
• Loss of elasticity
• Greater visibility of bony landmarks, blood vessels, wrinkles, and furrows
• Transverse forehead lines
• Lowering of the eyebrows
• Descent of the corners of the mouth
• Nasal tip drops downward

Identify the “Problems” = “Opportunities” that we see in our practices every day:

• Dermatochalasis
• Ptosis
• Lid “Bags”
• Ectropion/Entropion
• Eyelid Lesions
• Anatomical Lacrimal and Ocular Surface Issues (obstruction, conjunctival chalasis, etc.)
• Lines/wrinkles/scars
• +++

“It ain’t just the Ladies!”
Male Ocular-Facial Rejuvenation is an untapped opportunity!

What we will cover today:

• Dr. Sclafani
  – Ocular and facial cosmetics
  – Permanent eye liners
  – Lash extensions
  – Lash growth enhancement
  – Eye “whitening”
  – Contact lens related issues
What we will cover today:

- Dr. Albrecht
  - Ophthalmic plastic surgery
    - Upper lid blepharoplasty
    - Lower lid procedures
    - Procedures for ocular surface disease
    - Procedures Lid and adnexa lesion management
  - Botox and neuromodulators
  - Volumetric facial rejuvenation (Fillers)
  - Facial lasers and treatments

What we will cover today:

- Dr. Eiden
  - HOW TO INCORPORATE OCULAR PLASTICS & AN AESTHETIC EYE CARE IN TO YOUR PRACTICE
    - Selecting a surgeon
    - What procedures will you offer
    - The physical space
    - Staff selection & education
    - Presenting to patients
    - Practice marketing

FACTS ABOUT COSMETICS

- Eyes are the Windows to the Soul
- Kohl used in ancient times as an eye-liner contains lead, still around
- Introduce new products one at a time: avoid allergy

FACTS ABOUT COSMETICS

- Three Components of Eye-Liner
  - Film Formers: create a layer on the skin
  - Thickeners: waxes, gums, clays to “help color stick”
  - Pigments
    - Iron oxides= Black/brown
    - Ultramarine= blue,
    - Chromium oxide= green
    - Titanium oxide=white

- Avoid products with “glitter” especially in dry eye as these collect on the surface
- Don’t mix and match:
  - no lip-liner on the eyes: OCULOLINCTUS = Pink Eye
  - Introduce new products one at a time: avoid allergy
PROPER USE OF EYE COSMETICS

• Never tug lashes with curlers
• Application Process:
  Concealer..shadow..liner..powder..mascara
  – RESPECT THE LINE

With regards to CLW
• Apply post- SCL insertion especially for hyperopes.
• Apply pre- GP insertion
• Apply pre-CLS myopic presbyopes
• Replace mascara q 3 months:
• Don’t “top off” to make it last
• Remove all cosmetics @ bedtime, and rinse removers.

Permanent make-up facts

• Micro-pigmentation, Dermagraphics, “tats”
• Medical purposes
  — Vitiligo
  — Alopecia of Eye Brows
  — Facial reconstruction 2/2 trauma
• Cosmetic purpose
  — Active, Pro-athletes
  — Unable to wear cosmetics due to allergy, tremor, dexterity
• Most common is eye-liner... eyebrow....lips
• May reduce wrinkles and break down scar bands
• Refresher due to fading from UV, products, skin type

Permanent make-up risks

• Disatisfaction
• Infection, Hepatitis
• Peri-Op: pain, swelling, bleeding
• Allergic reaction: Avoid black India Ink and Henna
• Granulomas and Keloid (especially with removal)
• MRI
• COST: $400-$800 .... PARA-MEDICAL
• Report Adverse Events
  – FDA 1-800-332-1088
  – Premier Pigment July 2004

MAKE-UP REMOVAL

OcSOFT® Lid Scrub®
is a mild eyelid cleanser that effectively removes oil, debris and desquamated (dead) skin from the eyelid. The original Formula is recommended for routine daily eyelid hygiene.

Available in: Pre-Moistened Pads Instant Foam Pump

OcSOFT® Make-Up Remover
Recommended by eye care professionals for contact lens wearers and individuals with sensitive eyes
No harsh thimerosal or mercurial preservatives
Water-based and non-irritating to eyes
Oil, dye, and fragrance free

Permanent make-up facts

• Importance of reputable Services:
  – Licensed, OSHA standards
  – Dermatologists, Cosmetologist, Aesthetician, Nurses, Mac!
• There are no FDA “approved colors”: Iron oxide is inert, doesn’t migrate and less likely to cause allergic reaction than vegetable based products
• Takes about 2 hours
• Select Classic looks, rather than trendy
• Liner stays where your features migrate
  – No surprise look!

Jeanne Lusby, NaturaLook Institute of Permanent Cosmetics

Eyelash augmentation: EXTENSIONS

• False Eyelashes
  – Human, Synthetic, Feather
  – Self-Application Technique
  – Daily Removal without damage and Maintenance
  – Adhesives are safe
  – Use Baby oil to loosen the lash before pulling off
Eyelash augmentation: EXTENSIONS

“Permanent” Salon Applied
- Individual, Band or Weaved
- Potential for damage to natural lash and lid
- $300 : last for several months!!

- GLUE ATTRACTS DEBRIS, BUGS, IS THIS DEMODEX?? Allergic? CONTACT LENS INTOLERANCE

Eyelash augmentation: PROMOTE GROWTH

• SERUMS and CONDITIONERS
  - Evening conditioner: Vaseline, Baby Oil, Aquaphor

• ACTIVE INGREDIENT (OTC)
  - Many just mineral oils.
  - Read order of ingredient
  - Myristoyl Pentapeptide-17
  - CITY Lash, OBAGI Elasti-Lash, Lash Allure MD,

Zoria Boost- Ocusoft

• Boost Lash Intensifying Serum by Lili Fan, MD
• A conditioner and patented lipopeptide technology
• Anagen phase: Stimulates keratin genes and hair follicles to stimulate growth
• Catagen Phase: Strengthens, Repairs and protects
• Prolongs the Telagan phase by conditioning
• Only available thru eye care professional
• Zoria Mascara Sensitive eyes

Eyelash growth cycle

Zoria Boost- Ocusoft

- Treatment for "Hypotrichosis"
- .03% Bimatoprost ophthalmic
- Applied to base of upper eye lashed QD to increase thickness and darkness of lashes
- Prolongs Anagen or Growth phase to increase the proportion of lashes in this phase
- Stimulates transition from telogen to anagen phases resulting in thicker lashes
- Increases melanogenesis to increase amount of melanin in the follicle to result in darker lash
- Results in 12-16 wks, must be continued
- SE: pigmentation of lid margin, iris, sting, $$
  - PAP= Prostaglandin Associated Periorbitopathy

Improvements in Eyelash Length

- p<0.001
- p<0.0001

Week
1 4 8 12 16 20

Mean Change in Eyelash Length (mm)
0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8

LATISSE
Vehicle

0.3%
4.5%
11.9%
21.1%
25.0%
26.1%

0.4%
1.7%
2.0%
1.5%
2.4%
1.6%
**POTENTIAL SIDE EFFECTS**

- Pigmentation of lid margin (reversible)
- Pigmentation of iris (permanent)
- IOP Baseline? CME?
- Sting, Cost
- PAP= Prostaglandin Associated Periorbitopathy
  - Case reports in Glaucoma use
  - Alteration of fat cells
  - Drooping lids, deep sulcus
  - Monitor, esp. unilateral glaucoma
  - May enhance baggy, loose lids
  - May be permanent

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**SCLERAL WHITENING**

- Detox and increase Vitamin A
- Cool compresses
- Topical OTC drops: Murine, Visine,
  - Main ingredients: Vasoconstrictors Naphazoline, Saline
  - Caution for Rebound Hyperemia
- Side Effects of Ophthalmic Agents
  - Bella Donna
  - Alpha-2 adrenergic agonists
- Determine why eyes are red and treat it! But for a party or photo....

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**SCLERAL WHITENING:**

**SURGICAL INTERVENTION**

- Conjunctivoplasty
- Conjunctiva is resected along with blood vessels, fatty deposits and pigment.
- Regenerated tissue is healthier, brighter
- 8 weeks of AB/AI
- I-Brite technique by Boxer Wachler
- Risks/Benefits
- Dr. Scott Tunis
- Dr. Bon-Hyun Kim

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**Whitening with Diluted Brimonidine**

(off label use)

- Brimonidine 0.1% typically causes injection at this concentration
- Dilute: 2 drops/ml of low viscosity artificial tear
- Provides significant eye whitening lasting from 4 to 6 hrs. without any rebound effects
CL induced blepharoptosis

- GP contact lens wear
- Primary cause:
  - levator aponeurotic disinsertion
  - presumably due to recurrent traction on the aponeurosis during rigid contact lens removal.
- Mueller muscle degeneration
- PREVENTION
- Preparation for Lid SX

Operative Instructions

PRE-OP
- Avoid anticoagulants for 10 days pre-op
- Continue routine medications
- Be prepared for severe bruising/swelling day 2-4
- Bruising may persist for 2-3 weeks
- Refit in spectacles or temporary CLS

POST-OP
- Chill eyelid skin for 24 hours (frozen peas)
- Rest! No vigorous exercise or heavy lifting
- Protect cornea with ointment
- Sleep with head at 45 degree angle
- Remove sutures at 1 week
- No contact lens use first week
BOTOX - ORIGIN AND USES

• APPROVED IN 1982 FOR TREATMENT OF BLEPHAROPLASM

• 1 AFTER RESEARCH DONE ON STRABISMUS AND BLEPHAROSPASM WAS APPROVED FOR USE IN 1982.

• 2) APPROVED FOR USE FOR GLABELLAR LINE 2002

• 3) JUST RECENTLY APPROVED FOR CROWS FEET

• 4) USES FOR BOTOX FOR ALL TYPES OF DISORDERS ARE STILL GETTING FORMAL APPROVAL

BOTOX AND FACIAL REJUVENATION

BOTOX AND THE EYEBROW POSITION

NORMAL EYEBROW
FEMALE VS. MALE

FEMALE EYEBROW

• TYPICALLY MEDIAL PART DIRECTLY OR SLIGHTLY ABOVE SUPERIOR ORBITAL RIM

• LATERAL PART ABOVE SUPERIOR ORBITAL RIM

• PLUCKING AND DIFFERENT IDEAL EYEBROW SHAPES VARY THROUGH HISTORY (SUBJECT ALL TO ITSELF!)

• WOMEN’S EYESHAPE AND IDENTITY IS LINKED TO EYEBROW SHAPE
MALE EYEBROW

• BROW TENDS TO BE LOWER AND MORE STRAIGHT WITH THE OUTER PORTION OF BROW ON SUPERIOR ORBITAL RIM, NOT ABOVE IT AS IS IDEAL IN WOMEN

• BROW THICKER THAN WOMEN AND THE SUPERIOR ORBITAL RIM IN MEN IS MORE PRONOUNCED AS WELL

EYEBROW SHAPE AND GENDER IDENTIFICATION

• CHANGING SHAPE OF BROW CAN MAKE THE EYE APPEAR MORE MASCUrine OR MORE FEMININE

• FEMALE BROW SHAPE HOWEVER GOES THROUGH TRENDS OF WHAT IS DECIDED ATTRACTIVE AT THE TIME
  — DURING THE 1920S TO 1940S A THIN ARCHED BROW WAS CONSIDERED BEAUTIFUL
  — A VERY WELL ETCHED ARCHED EYEBROW IN THE 1950S
  — THICKER STRAIGHT BROWS ARE NOW IN TREND— IN FACT A MORE "MASCULINE" BROW
BOTOX BROW LIFT

PITFALLS OF BOTOX FOR LINES AND BROWLIFT

- OVER-BOTOXING CAUSES WHOLE BROW IN DROP ESPECIALLY WITH ACTIVE FOREHEAD ELEVATION HABIT WHICH MAKES DERMATOCHALASIS AND HOODING WORSE

- IMPROPERLY BOTOXING FOREHEAD OR TRYING TO LIFT LATERAL BROW RESULTS IN DEPRESSED GLABELLAR REGION AND ELEVATED LATERAL BROW ("WITCH" OR "SPOCK" LOOK)

DEPRESSION OF GLABELLA AND ELEVATION OF LATERAL BROW
THIS PATIENT IS VERY HAPPY WITH HER BOTOX WHY?

FACIAL FILLERS

- EARLIEST USED IN 1920S WERE FAT TRANSFERS
- COLLAGEN STARTED IN MID 1980S
- SILICONE USED IN 1980S AS WELL UNTIL CONCERNS ABOUT SAFETY
POPULAR FILLERS TODAY

• **COSMOPLAST** - CROSS-LINED COLLAGEN, NO NEED FOR SKIN TESTING. USED FOR FINE LINES LASTS 3 TO SIX MONTHS
• **HYLARONIC ACID FILLERS** - MOST POPULAR FILLER TODAY. DEPENDING ON TYPE CAN LAST FROM 3 MONTHS TO TWO YEARS OR MORE
  – BRANDS NAMES WELL KNOWN: RESTYLANE, PERLANE, BELOTERO, VOLUMA
• DIFFERENCE BETWEEN EACH OF THE HYLARONIC ACIDS IS THE SIZE OF THE MOLECULE INJECTED AND THIS DETERMINES DEPTH AND AREA OF INJECTION AND ALSO LENGTH OF TIME IT LASTS

HYLAURONIC ACID INJECTIBLES

• BY FAR MOST USED AND MOST SAFE
• NO ALLERGY
• IS ONLY FILLER REVERSIBLE WITH HYLARONIDASE
• IS A NATURAL SKIN COMPONENT - SOMETHING LOST FROM SKIN WITH AGING
• DIFFERENCE IN EACH IS SIZE OF THE MOLECULE

POPULAR FILLERS TODAY

• **RADISSE** - CALCIUM HYDROXYAPAPITE - SOFT TISSUE AUGMENTATION - LIKE "BONE"
• **SCULPTRA** - POLY-L-LACTIC ACID - FIRST USED FOR LIPOATROPY IN HIV PATIENTS
• **BELAFILL** (FORMALLY ARTEFILL) - (ONLY PERMANENT FILLER ON MARKET) - MADE UP A TINY PMMA PARTICLES IN A BOVINE COLLAGEN BASE - APPROVED AND USED IN NASOLABIAL LINES

HYLAURONIC ACID TREATMENT OF EYES

• WITH AGING INFERIOR ORBITAL RIM IS BARED CAUSING A DOUBLE CONVEXITY UNDER THE EYES WITH CRINKLING OVER THE AREA FROM FINE LINES
• TEAR TROUGH AREA DEEPENS WITH AGING AS WELL
• DESCENT OF MIDFACE CAUSES FLATTENING OF CHECK BONE MAKING LOWER LID BAGS MORE OBVIOUS
• SHADOWING UNDER THE EYES MORE PROMINENT CAUSING THE ILLUSION OF DARK CIRCLES

TREATMENT OF TEAR TROUGH AND PALPEBROMALAR GROOVE

![Image of tear trough and palpebromalar groove with arrows pointing to the areas]](image-url)
FILLER USED TO GET RID OF DARK CIRCLES

DISGUIRING LOWER LID BAGS

LOWER LIDS TREATED AS WELL AS CHEEK LIFT

VOLUMIZING THE FACE

ARROWS TO INJECTION SITES
RADIESSE FOR FACIAL CONTOURING AND VOLUMIZATION

RADIESSE FOR AUGMENTATION OF JAW AND TREATMENT OF JOWLS

JAW SCULPTING WITH FILLER

JAW SCULPTING WITH FILLER

CHEEK LIFT AND JAW AUGMENTATION AND TREATMENT OF JOWLS WITH VOLUMA

CHEEK LIFT, JAW SCULPTING, CHIN AUGMENTATION AND ENHANCEMENT OF CHEEKBONE
TREATMENT WITH SCULPTRA OF TEMPLES

EYELID BASIC ANATOMY

DIFFERENCES BETWEEN MALE AND FEMALE EYELIDS

• LID CREASE IN WOMAN IS 9 TO 15 MM HIGH
• LID CREASE IN MEN IS 7 TO 11 HIGH
• REFLECTS HEIGHT OF TARSUS IN LIDS
• ORBICULARIS THICKER AND STRONGER
• SKIN THICKER

ETHNIC DIFFERENCES

• ASIAN EYE LID
  • 1) EPICANTHAL FOLD
  • 2) SHORT TARSAL HEIGHT – 4 TO 6 MM
  • 3) 50% OF ASIANS DO NOT HAVE A LID CREASE - NO LID CREASE EARLIER DERMATOCHALAI WITH HOODING
  • 4) HIGHER LATERAL INSERTION OF CANTHAL TENDON
  • 5) SECONDARY TO SHORT TARSUS WITH ORBICULARIS OVER-RIDE HAS HIGHER INCIDENCE OF ENTROPION (EPIBLEPHARON) AND LASH PTOSIS

UPPER EYELID AND EYEBROW EXAMINATION
LOOK AT USE OF FRONTALIS- CAN INDICATE PTOSIS OR SYMPTOMATIC DERMATOCHALASIS

HOLD BROWS OVER SUPERIOR ORBITAL RIM
IF SKIN IS DRAPE OVER LASHES PULL UP SKIN TO LOOK FOR INFLAMMATION ALONG LASH LINE OF SKIN AND MARGIN

LID HEIGHT - LID TO CORNEAL LIGHT REFLEX - LOOK FOR DIFFERENCES BETWEEN TWO EYES (Margin Reflex Distance – “MRD” measurement)

ASK ABOUT HISTORY OF “HCL” IN YOUNG UNILATERAL PTOSIS

NEW ONSET UNILATERAL PTOSIS

- ALWAYS CHECK FOR POSSIBLE EVOLVING THIRD NERVE PALSY IN OLD AND YOUNG PATIENTS - CHECK PUPIL!
- CHECK FOR SIGNS OF HORNERS SYNDROME AS WELL – MAY SEE CONGENITAL HORNERS IN PATIENTS WHO NOTED PTOSIS FOR THE FIRST TIME IN DRIVER’S PHOTO

PTOSIS

- NOTICE IF PATIENT USES FOREHEAD TO LIFT EYELIDS (CAN GET UP TO 4MM OF LIFT IN SOME CASES)
- NOTICE IF PATIENT HAS CHIN UP POSITION AND TAKE PHOTO HOLDING HEAD STRAIGHT
- NOTE LID CREASE HEIGHT. IF ELEVATED LIKELY DUE TO LEVATOR DIHISCENCE OR TEARS. USUALLY SEEN BILATERALLY WITH AGING. UNILATERAL IF TRAUMA
- ASK IF PATIENT HAS HAD CATARACT OR LASIK SURGERY - ANYTIME A LID SPECULUM IS USED IN SURGERY THERE IS A RISK OF PTOSIS. AFTERWARD DUES TO DAMAGE OF THE LEVATOR TENDON
INVOLUTIONAL PTOSIS WITH HIGH LID CREASE AND CHIN UP POSITION. LIFTING LEFT EYEBROW TO SEE BETTER. BETTER SEEING EYE LEFT EYE-EXTROPIA RIGHT EYE

LEVATOR TENDON ADVANCEMENT

- Address ptosis greater than 3mm or those who fail 10% phenylephrine test
- Disinsert and then advance or resect levator tendon (it's lifts the lid 14 to 16mm).
- Reattach if disinserted
- Patient has to be awake during advancement of tendon so you can measure height and symmetry
- Can be technically difficult
- Has 10 to 30% reop rate

10% PHENYLEPRINE TEST

- Activate muellers muscle under the upper lid
- Place two drops and repeat three times over a minute and wait two to three minutes to recheck MRD or palpebral fissure
- Photo with flash good to show before and after response to medication and measure light reflex to lid

10% PHENYLEPHRINE TEST

- Muellers is sympathetically innervated and lifts the lid with stimulation 2 to 3mm
- Wonderful test with unilateral ptosis as seen with post-cataract patients or long-term HCL wearers
- If positive indicates surgery repair by shortening the mueller's muscle

MUELLERECTOMY

- Surgery involves infiltrating superior palpebral conjunctiva after everting upper lid
- Then marking off 7 to 9 mm of conjunctiva above the tarsal border (the muellers muscle is attached to the underside of the conjunctiva of the upper lid)
- This is resected with a clamp and ends sewn together - very reliable and corresponds with phenyleprine test
- Technically much easier and can be done in the office under local, or patient can chose to be under anesthesia.
OFFICE EVALUATION FOR PTOSIS

- Taped and untaped visual field testing
- Photos with and without flash
- Evaluate levator function
- MRD (margin reflex distance)
- Palpebral fissure measurements
- Phenylephrine testing if indicated
  (If crease is very high with an MRD of less than 1.5 or below unlikely that a muellerectomy will help)
- Check for herings

UPPER LID DERMATOCHALASIS

- Always check eyebrow position especially if asymmetrical. Look for facial palsy if present
  (Inability to lift eyebrow on one side)
- If skin is over lash line- especially with dry eye patients look for inflammation of lash line and skin- also a cause of frequent styes. Lid scrubs will not work on some patients if they do not lift skin off lashes to clean

UPPER LID DERMATOCHALASIS

- In older patients can sometimes palpate prolapsed lacrimal gland and may be able to evert upper lid and view it in superior lateral fornix- this can be a cause of dry eye
- In younger patients it can be very noticeable as there is no fat in the lateral part of the upper eyelid

DERMATOCHALASIS: CAUSES

- Aging- laxity of skin with loss of collagen
- Sun damage
- Smoking
- Brow ptosis
- Genetics
- Extreme weight loss
- Blepharochalasis-swelling of lids stretching skin
- Fatty lids stretch skin over time
**FATTY UPPER LIDS**

- Often seen along with dermatochalasis
- Two fat compartments in upper lid: medial and middle. The largest fat pad is the middle. Elderly almost always have prominent medial fat pad.
- Protrusion is secondary to weakness in the orbital septum
- When seen in younger patients is often genetic

**HEAVY UPPER EYELID**

- Eye lids where there is heavy fat protrusion with dermatochalasis can cause visual disturbance and discomfort by sense of heaviness of lids especially towards end of day - compounded too if raising forehead all day to see better
- Not uncommon to do upper lid blepharoplasty in this situation and see visual acuity can improve.
UPPER LID RETRACTION

- Can be very subtle
- Asymmetrical
- Look for lagopthalmos and proptosis
- And rule out Graves
- Can cause painful dry eye due to greater area of evaporation of tears as well as limit eye closure
- Sometimes normal variant and if no symptoms or complaints don’t need to treat

UPPER LID DETACHMENT OF LEVATOR TENDON WITH SPACER GRAFT

LOWER LID EXAMINATION

- Check height of eyelid- retracted,? sagging laterally? scleral show?
- Punctum position
- Thicked lower lid with/without MGD
- Suspicious lumps or bumps, loss of lashes, blepharitis- lower lid and medial canthal area most common site of skin cancer

LOWER LID EXAMINATION

- Lid position- lashes turn outward or inward
- Lid laxity- very important test especially with dry eye
- Normal lid laxity is around 7mm with lid distraction
- Poor shapback with lid distraction very important as well
DRY EYE AND ECTROPION AND LID RETRACTION

• ROSE BENGAL TESTING IS VERY GOOD TO CHECK STAINING OF THE EXPOSED CONJUNCTIVA WHEN PATIENT COMPLAINTS DO NOT MATCH OTHER FINDINGS
• VERY SENSITIVE TEST WITH ECTROPION. SEE STAINING IN AREA BELOW CORNEA AND IN LATERAL BULBAR CONJUNCTIVA WHERE THERE IS CANTHAL LAXITY

TYPES OF ECTROPION

• INVOLUTIONAL (AGING) MOST COMMON
• CICATRICIAL (WITH BURNS, POST-SURGERY, LASER AND ESPECIALLY CHRONIC SUN EXPOSURE)
• PARALYTIC-AFTER BELLS Palsy OR ANY 7\textsuperscript{th} NERVE Palsy-POST STROKE
• SPASTIC (MORE OFTEN ENTROPION)

Notice the purple Rose-Bengal staining. The white of the eye normally should not take up any stain. Even though there is no deficiency of tear production, the eye is dry because the tear film is very unstable and breaks easily. There may be increased evaporation of tears as well. The symptoms are of constant eye irritation.
ECTROPION

- LATERAL (MOST COMMON) ROUNDING
  INDICATED LATERAL CANTHAL TENDON
  STRETCHING OR DIHISCENCE
- LID DISTRACTION TEST PULLS LID AWAY
  LATERALLY FROM CANTHAL ANGLE
- CAN BE COSMETICALLY DISTURBING AS THE
  LATERAL ANGLE OF THE EYE SLOPES
  DOWNWARD IN ANTI-MONOGOLID SLANT

ECTROPION AND ORBICULARIS

- STRETCHING OF THE LATERAL CANTHAL
  TENDON WITH AGING
- AGING CHANGES CAUSE ORBICULARIS TONE
  TO CHANGE AND TO SAG DOWNWARD
- TEST ORBICULARIS STRENGTH:
  AND SEE IF LOWER LID INVERTS IN OR OUT OR IF
  THE UPPER AND LOWER LID DO NOT MEET LID TO
  LID- AFFECT OIL EXPRESSION (DRY EYE) AND
  IRRITATES INNER TARSAL CONJUNCTIVA

ECTROPION AND FATTY LOWER LIDS

- SAME AGING CHANGES TO CANTHAL TENDON
  AND ORBICULARIS AFFECT THE ORBITAL SEPTUM
- THE ORBITAL SEPTUM KEEPS THE ORBITAL FAT
  BEHIND THE EYE
- SEPTUM WEAKENS WITH AGE AND FAT POUCHES
  OCCUR
- CAN LITERALLY PUSH LOOSE LOWER LID AWAY
  FROM BULBAR CONJUNCTIVA (ANOTHER CAUSE
  FOR DRY EYE)
FAT REMOVAL LOWER LIDS

- Test strength of Orbicularis
- Test lid laxity and snapback and removal of fat
- Lower lids can worsen lid retraction and ectropion
- Especially with cosmetic lower lid blepharoplasty, have patient look up as that pushes the separate fat compartments into more prominence and can decide what needs to be removed
- In cosmetic lower lid blepharoplasty, check for redundant lower lid skin with pinch test to see if skin needs to be removed along with fat

FATTY EYELIDS ARE ASSOCIATED WITH:

- Weakening of the orbital septum
- Aging
- Being overweight
- Male gender
- Genetics
COMPLICATIONS OF LID SURGERY

- Bruising and swelling: Lids can swell enormously so patient may have eyes shut with swelling. (One reason we do one set of lids at a time in older patients)
- Sutures can break without proper instruction or patient compliance
- Infections very rare: Eyelids have dual circulation from internal and external carotids
- Smokers do not heal well: Longer healing time/ scarring and wound dihiscence
- Asymmetry of lids especially with ptosis surgery
- Too much skin removed upper lid so patient cannot close eyes (surgeon error!)
- Worsening of dry eye: Especially upper lid surgery
- Corneal abrasion post-operatively

WORST COMPLICATION OF EYELID SURGERY-RETROBULBAR HEMORRAGE

- Usually seen within 24 hours after surgery but can happen weeks later
- Most common after opening septum to remove fat as fat is quite vascular and bleeds
- Patients on blood thinners at much higher risk
- Rare complication but is sight-threatening
LOWER LID RETRACTION

- Often see this in conjunction with ectropion in older patients as part of aging change.
- Note inferior scleral show will be in part due to laxity of lower lid.
- Causes terrible dry eye and upper lid may not touch with lower lid with blink, only forceful closure.

ECTROPION WITH 14MM LID DISTRACTION, INFERIOR SCLERAL SHOW, SAGGING OF ORBICULARIS AND MID-FACE DESCENT
ASIAN BLEPHAROPLASTY

- DIFFERENT TECHNIQUE TO FIX UPPER LIDS
- 50% DO NOT HAVE LID CREASE - IN FUNCTIONAL SURGERY HELPS TO CREATE CREASE
- FAT PROTRUSION MORE OBVIOUS GIVES THE FULLER UPPER LID APPEARANCE AS SEPTUM INSERTION IS LOWER ON UPPER LID THAN CAUCASIANS
- ASIANS HAVE TIGHTER ORBITS SO SEE MORE FATTY EXTRUSION WITH AGING
BROW LIFT

• COSMETIC VERSUS FUNCTIONAL
• LOOK FOR VERY LOW BROW AFTER PRIOR BLEPHAROPLASTY
• TYPES OF PROCEDURES:
  – DIRECT
  – CORONAL
  – PRETRICHIAL
  – ENDOSCOPIC
“FORM FOLLOWS FUNCTION”

• RESTORING YOUTHFUL ANATOMY ALSO RESTORES BETTER FUNCTION WITH BOTH UPPER AND LOWER LID SURGERY
• MANY PROCEDURES ARE COVERED BY INSURANCE THAT NOT ONLY PROVIDE BETTER VISION AND COMFORT TO THE PATIENT BUT ALSO PROVIDE A MORE YOUTHFUL AND PLEASING APPEARANCE TO PATIENT (ADDED BONUS AND PATIENTS ARE VERY HAPPY)
HOW TO INCORPORATE OCULAR PLASTICS & AN AESTHETIC EYE CARE INTO YOUR PRACTICE

S. Barry Eiden, OD, FAAO

Review the “Solutions”

- “OD Solutions”
  - Identification and diagnostic testing
  - Education and presentation of treatment options
  - Medical Therapy (state regulated)
  - Limited interventional procedures (state regulated)
  - Referral to oculo-plastic specialist

- “MD Solutions”
  - Surgical
  - Other interventional procedures (injections, fillers, lasers, etc.)

- “Integrated Solutions”
  - Co-management
  - Integrated practices

Integration of Ocular Plastics/Aesthetics into Optometric Practice

- Model 1 – “Referral” model
  - Can be reactive or proactive
  - Identify, Educate and refer
  - Perform pre-Tx diagnostic testing
    - Photodocumentation
    - Visual Fields
    - Others...

- Model 2 – “Co-management” model
  - Identify, Educate, perform pre-Tx diagnostic testing
  - Treat what you can
  - Refer out what you can’t
  - Back for long term post-op care/post-Tx (co-management)

Integration of Ocular Plastics/Aesthetics into Optometric Practice

- Model 3 – “Integrative” model
  - Integrative practice – have ophthalmic plastic MD within OD office (hire, partner, facility fee, etc.)
  - Aesthetic Eye/Facial Center – free standing
    - (MD, OD, Aestheticians, Physician assistants, etc.)

HOW TO INCORPORATE OCULAR PLASTICS & AN AESTHETIC EYE CARE IN TO YOUR PRACTICE

- Selecting an ophthalmic plastic surgeon:
  - Fellowship trained, experienced/talented, reflects your practice, understands the spirit of “inter-professionalism”
  - Business relationship: employee, partner, facility fee, etc. (often state regulations limit options)

- What procedures will you offer:
  - Surgical, fillers, lasers, neuromodulators, OTC cosmetic, nutritional, etc.

HOW TO INCORPORATE OCULAR PLASTICS & AN AESTHETIC EYE CENTER IN TO YOUR PRACTICE

- Staff Selection and Education:
  - OD attendings, Ophthalmic Techs, Aestheticians, Physician Assistants, Admin. Staff

- Presenting to Patients:
  - “The power of the doctor”
  - “have you noticed”, “have you experienced”, “does it bother you”?
  - “Let’s consider a consultation, it does not mean you are doing anything about it at this time”
HOW TO INCORPORATE OCULAR PLASTICS & AN AESTHETIC EYE CARE INTO YOUR PRACTICE

• Practice Marketing:
  – Internal Marketing
    • Website
    • Social Media
    • In office materials, videos, testimonials
    • E-mail blasts, e-newsletters
  – External Marketing
    • Market research
    • Direct mail/online campaigns
    • Public Relations

HOW TO INCORPORATE OCULAR PLASTICS & AN AESTHETIC EYE CARE INTO YOUR PRACTICE

• The Physical Space:
  – Within your existing practice space
    • Only need exam/consultation room, minor procedure instrumentation, ability for photo-documentation, storage of "product"
  – Free standing / separate space for an "aesthetic center"
    • Patient reception/education
    • Consultation/treatment rooms
    • Minor surgical procedures and other treatments
    • Specific legal requirements/certification – state regulations