

COSMETIC EYELID SURGERY

PART 1

MARIE SOMOGYI, MD, FACS

OCULOFACIAL PLASTIC & RECONSTRUCTIVE SURGERY

FACIAL COSMETIC SURGERY

PRIVATE PRACTICE, AUSTIN, TX

CLINICAL FACULTY, DELL MEDICAL SCHOOL AT UT AUSTIN



I HAVE NO
FINANCIAL
DISCLOSURES

A portrait of Marie Somogyi, MD, FACS, a woman with long blonde hair, wearing a blue and white patterned short-sleeved top and a pearl necklace. The background is a light-colored wall with abstract watercolor brushstrokes in shades of orange, green, and pink. There are also some thin black decorative lines.

MARIE SOMOGYI, MD, FACS

OCULOFACIAL PLASTIC &
RECONSTRUCTIVE SURGERY
FACIAL COSMETIC SURGERY

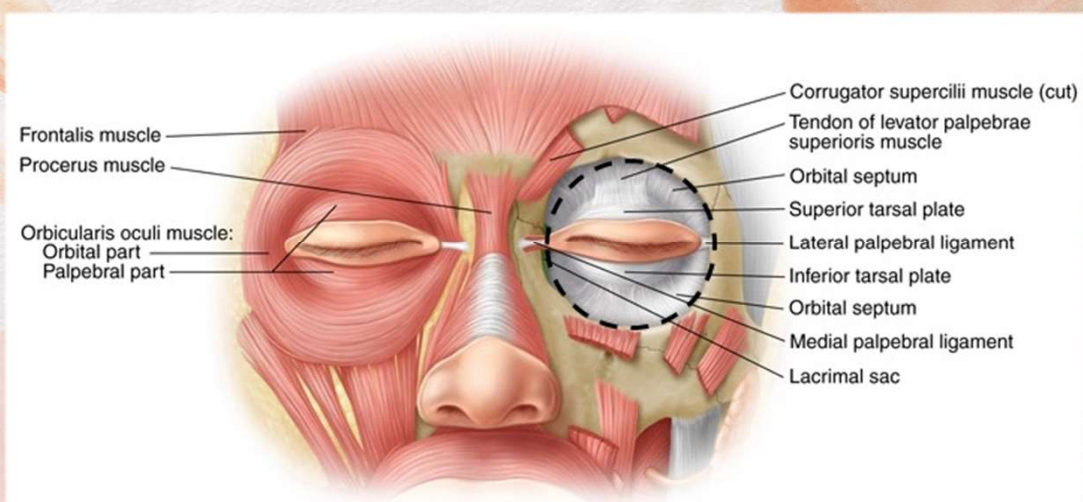
OUTLINE

- PERIORBITAL ANATOMY
- UPPER BLEPHAROPLASTY
- EYEBROW AND FOREHEAD LIFT
- LOWER BLEPHAROPLASTY
- HA FILLER AND FAT TRANSFER
- CASE STUDIES

OUTLINE

- PERIORBITAL ANATOMY
- UPPER BLEPHAROPLASTY
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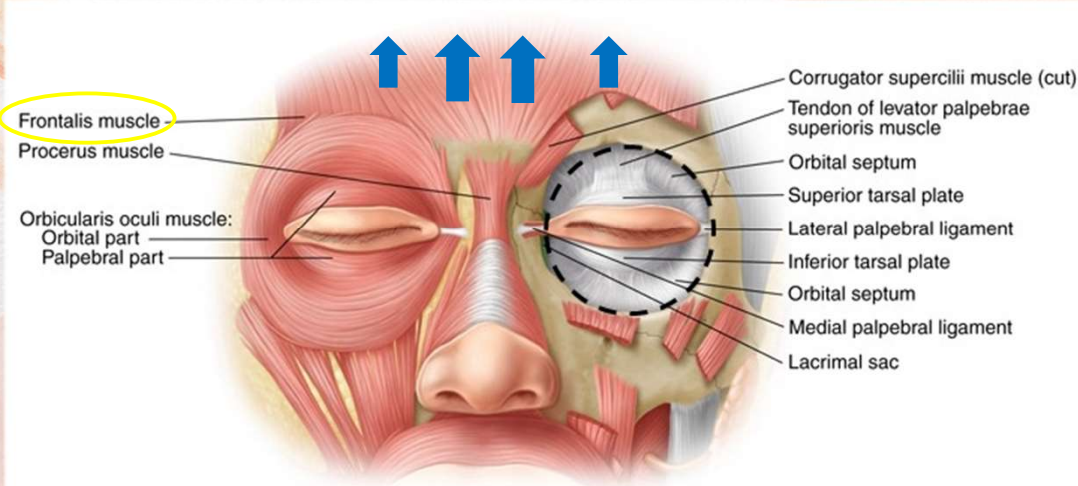
PERIORBITAL ANATOMY



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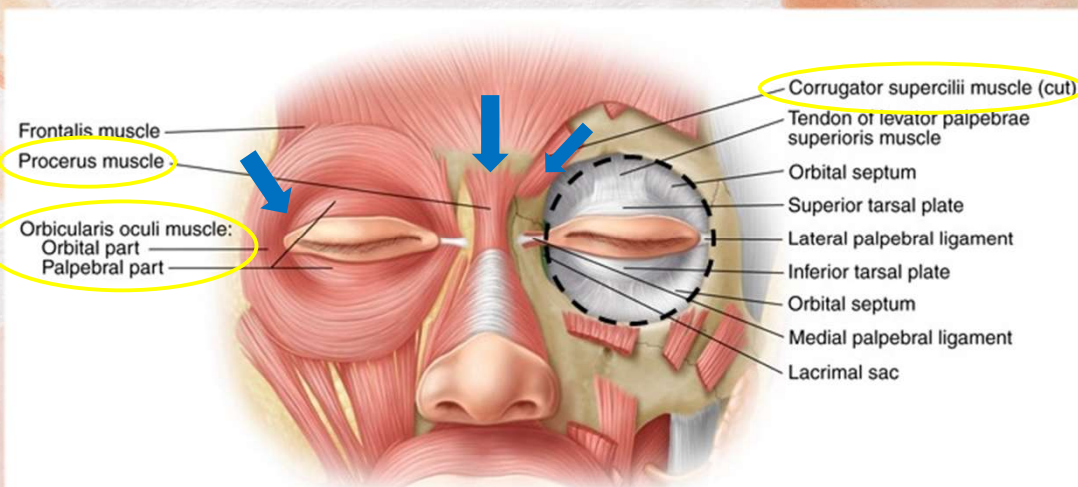
7-57 Orbit, Anterior View I, C. Muscles and Orbital Septum

BROW ELEVATORS



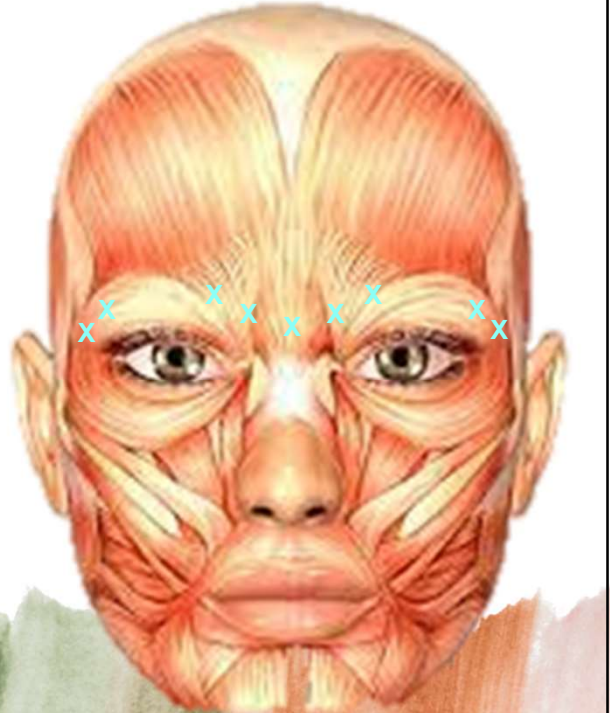
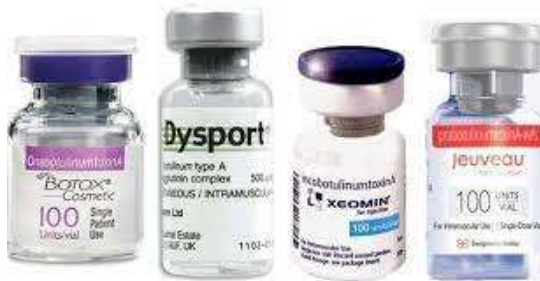
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BROW DERPESSORS



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"CHEMICAL BROW LIFT"



AVOID THIS!



THE "SPOCKED" BROW

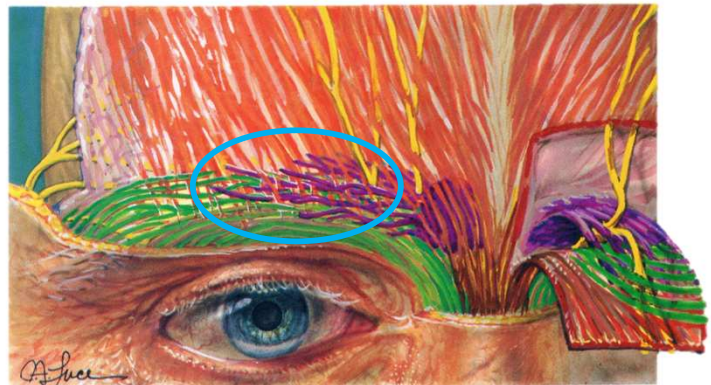
MEDIAL BROW ANATOMY

- CORRUGATOR IS **DEEP** TO THE FRONTALIS MEDIALY
- BOTOX INJECTED SUPERFICIALLY IN THIS AREA
→ **FRONTALIS**
- BOTOX INJECTED DEEP
→ **CORRUGATOR**



ANATOMY -- LATERAL CORRUGATOR

- LATERALLY, BECOMES MORE SUPERFICIAL
- INTERDIGITATES WITH THE FRONTALIS MUSCLE
- BOTOX CAN BE INJECTED MORE SUPERFICIALLY → **BUT** ALSO LIKELY TO WEAKEN FRONTALIS



PERIORBITAL ANATOMY – ORBITAL SEPTUM

- THICK, FIBROUS SHEET

- SEPARATES THE EYELID

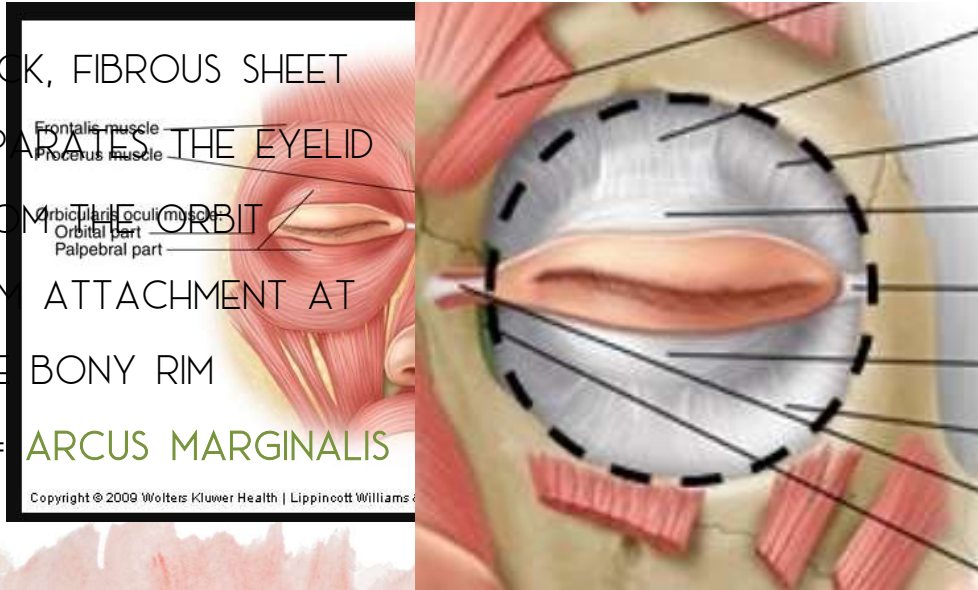
- FROM THE ORBIT

- FIRM ATTACHMENT AT

- THE BONY RIM

= **ARCUS MARGINALIS**

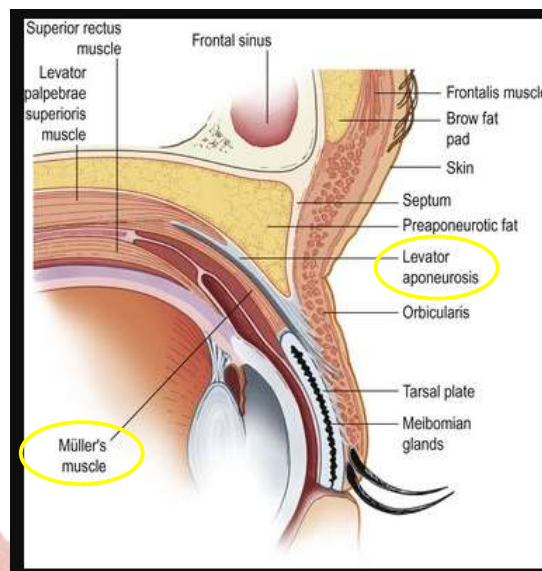
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UPPER EYELID ANATOMY

LEVATOR

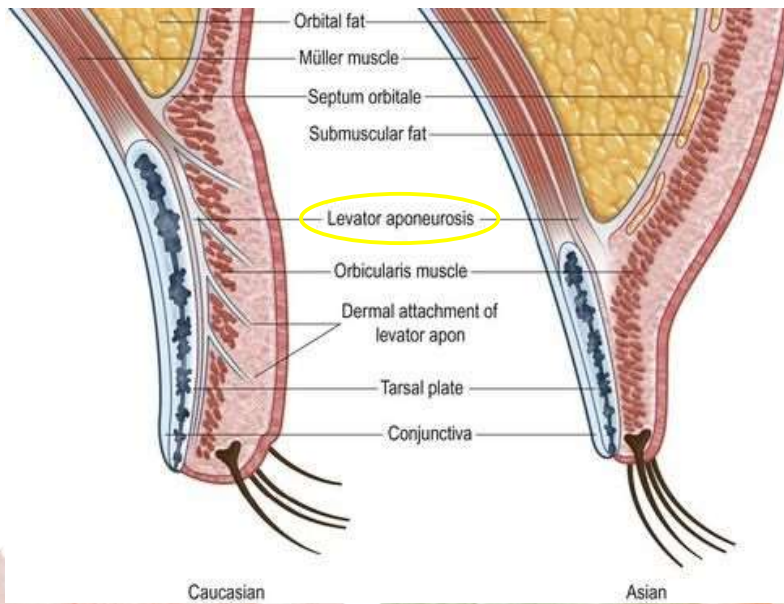
- LOCATED BENEATH PREAPONEUROTIC FAT BEHIND THE ORBITAL SEPTUM
- INNERVATED BY CN3



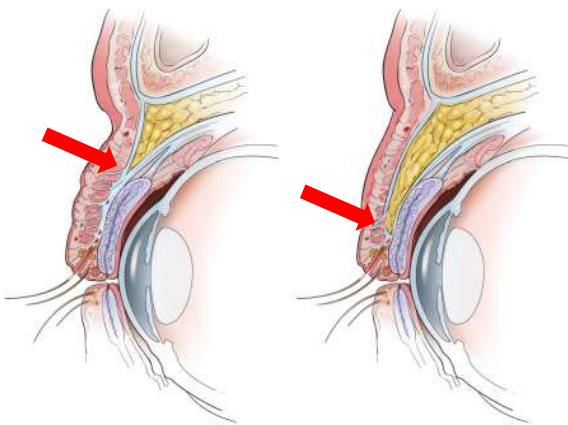
MÜLLERS

- LOCATED POSTERIORLY ADJACENT TO THE CONJUNCTIVA
- AUTONOMICALLY INNERVATED

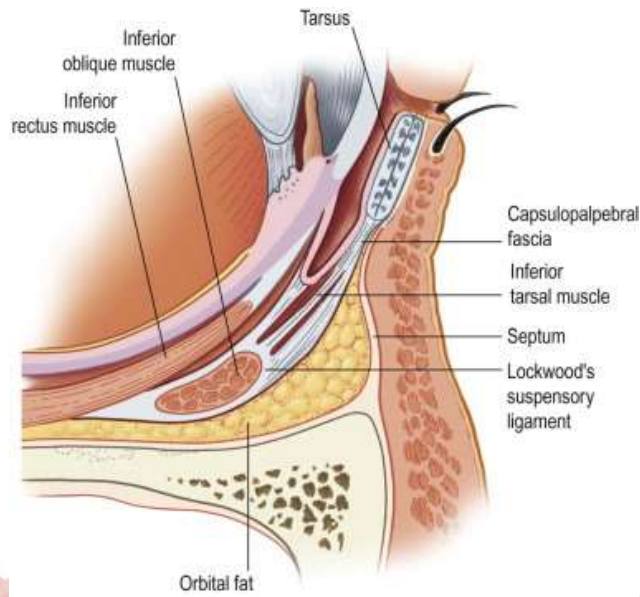
HOW DOES THE EYELID CREASE FORM?



VARIATIONS IN UPPER EYELID CREASE

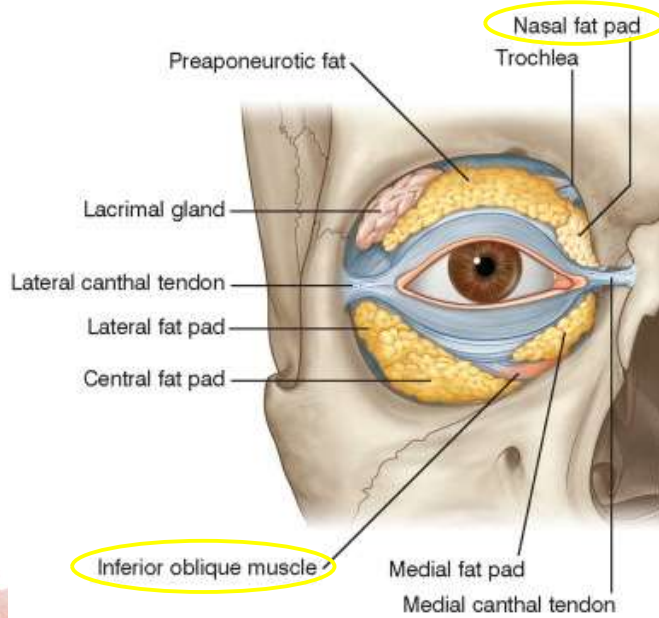


LOWER EYELID ANATOMY



Narad JA. Techniques in Ophthalmic Plastic Surgery: A Personal Tutorial, 1st ed. Philadelphia: Elsevier Health Sciences; 2009. Chapter 2, Clinical Anatomy, Fig 2.28, p.43.

ORBITAL FAT PADS



Narad JA. Techniques in Ophthalmic Plastic Surgery: A Personal Tutorial, 1st ed. Philadelphia: Elsevier Health Sciences; 2009. Chapter 2, Clinical Anatomy, Fig 2.28, p.43.

OUTLINE

- ~~PERIORBITAL ANATOMY~~
- UPPER BLEPHAROPLASTY
- EYEBROW AND FOREHEAD LIFT
- LOWER BLEPHAROPLASTY
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- CASE STUDIES

PRE-OPERATIVE EVALUATION

- MEDICAL HISTORY (THYROID DYSFUNCTION, MYASTHENIA GRAVIS, ETC)
- MEDICATIONS (ASPIRIN, OTHER ANTICOAGULANTS/ANTIPLATELET AGENTS)
- PRIOR EYE PROBLEMS (*DRY EYE*)
 - BURNING
 - TEARING
 - FOREIGN BODY SENSATION
- PRIOR EYE SURGERY
 - (IE LASIK → MAY BE PREDISPOSED TO DRY EYE)
- PRIOR EYELID SURGERY

PRE-OPERATIVE DRY EYE SCREENING



NDC 0061-1020-02

Results

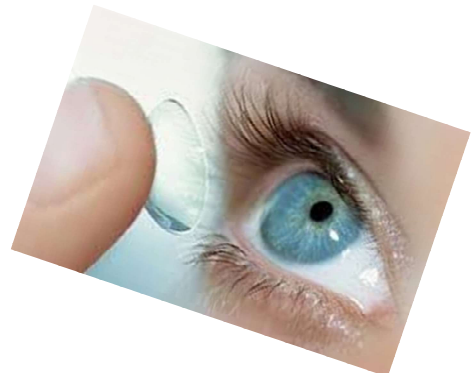
- Insufficient tear production
- Possible shortage of tears
- Normal tear production

TEST VISION



J. G. ROSENBAUM POCKET VISION SCREENER

95		distance	equivalent
874			
2843	Point Jaeger	ft	
	26	16	20
638 E W E X O O		14	10
8 7 4 5 E M W O X O		10	7
6 3 9 2 5 M E E X O X		8	5
4 2 X 3 6 5 W E M O X O		6	3
3 7 4 2 5 8 O W X X O		5	2
X X X X X W X X X O O		4	1
X X X X X X X X X O X		3	1+



Card is held in good light 14 inches from eye. Record vision for each eye separately with and without glasses. Presbyopic patients should read thru bifocal segment. Check myopes with glasses only.

"DROOPY" EYELIDS

THE TRIPLE THREAT

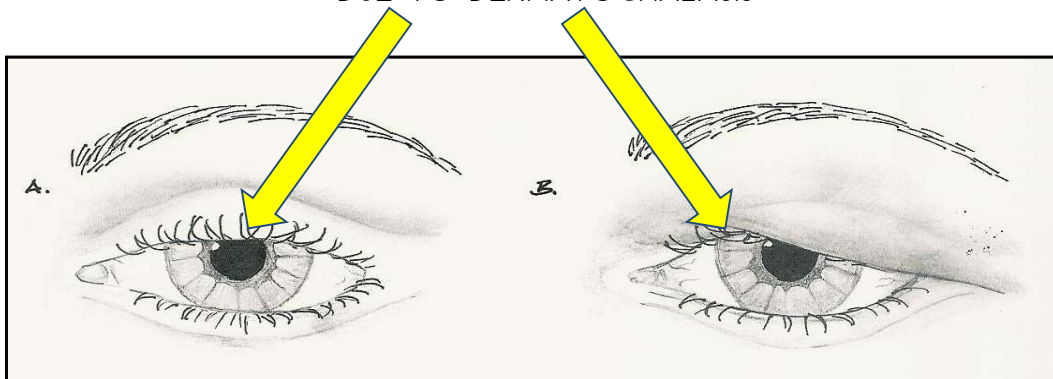
DERMATOCHALASIS
= EXTRA SKIN

PTOSIS
= DROOPY MUSCLE

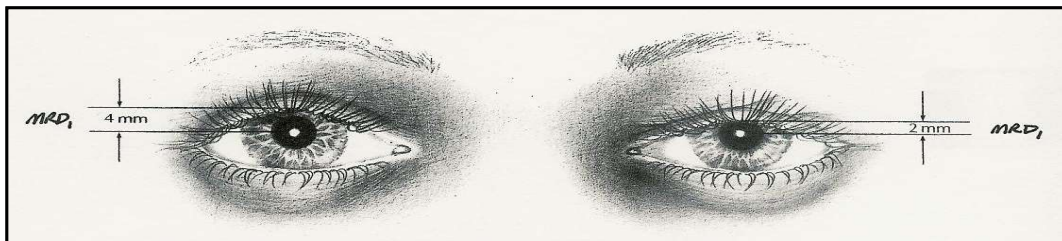
BROW PTOSIS
= EYEBROW DROOP

CHIEF COMPLAINT: "I HAVE DROOPY EYELIDS"

** IMPORTANT TO DIFFERENTIATE TRUE PTOSIS FROM *PSEUDOPTOSIS*
DUE TO DERMATOCHALASIS



MARGIN REFLEX DISTANCE (MRD OR MRD1)

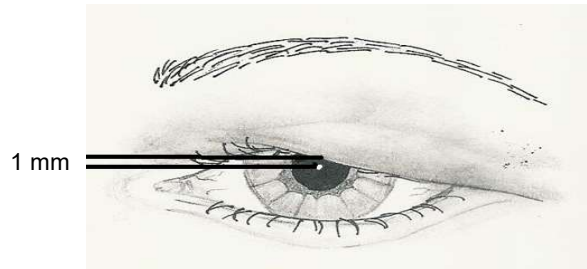


PTOSIS (mm)	MRD1
(Normal) ≤ 2	+4-5 (Normal)
>2	+3
3	+2
4	+1
5	0*
6	-1
7	-2
8	-3
9	-4
10	-5

IMPORTANCE OF MRD1

****INSURANCE****

MEDICARE AND PRIVATE INSURANCE CARRIERS
USE MRD1 WHEN DETERMINING APPROVAL FOR SURGERY



PHOTOGRAPHS

FRONTAL

OBLIQUE OR $\frac{3}{4}$ VIEW

"AWNING EFFECT"



STEP 1: CREASE MARKING



NATURAL
CREASE:
8-10MM

STEP 2: UPPER MARKING



UNKNOWN = 2Ø - CREASE HEIGHT (8-10MM) = X

LATERAL CANTHAL MARKING



Above lateral canthus: ~7mm

LATERAL CANTHAL MARKING



TRANSPOSITION UPPER BLEPHAROPLASTY



Ophthalmic Plastic & Reconstructive Surgery 35(5):509-512, September/October 2019.

BEFORE & AFTER TRANSPOSITION UPPER BLEPHAROPLASTY



Ophthalmic Plastic & Reconstructive Surgery 35(5):509-512, September/October 2019.

POST OPERATIVE ISSUES...



POST OPERATIVE LAGOPHTHALMOS!

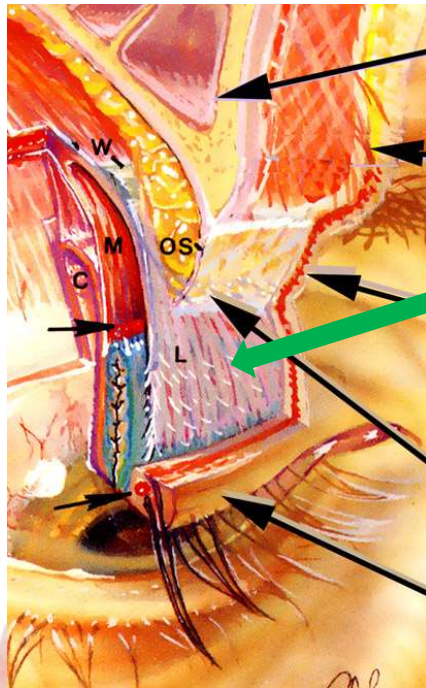


POST OPERATIVE LAGOPHTHALMOS MANAGEMENT

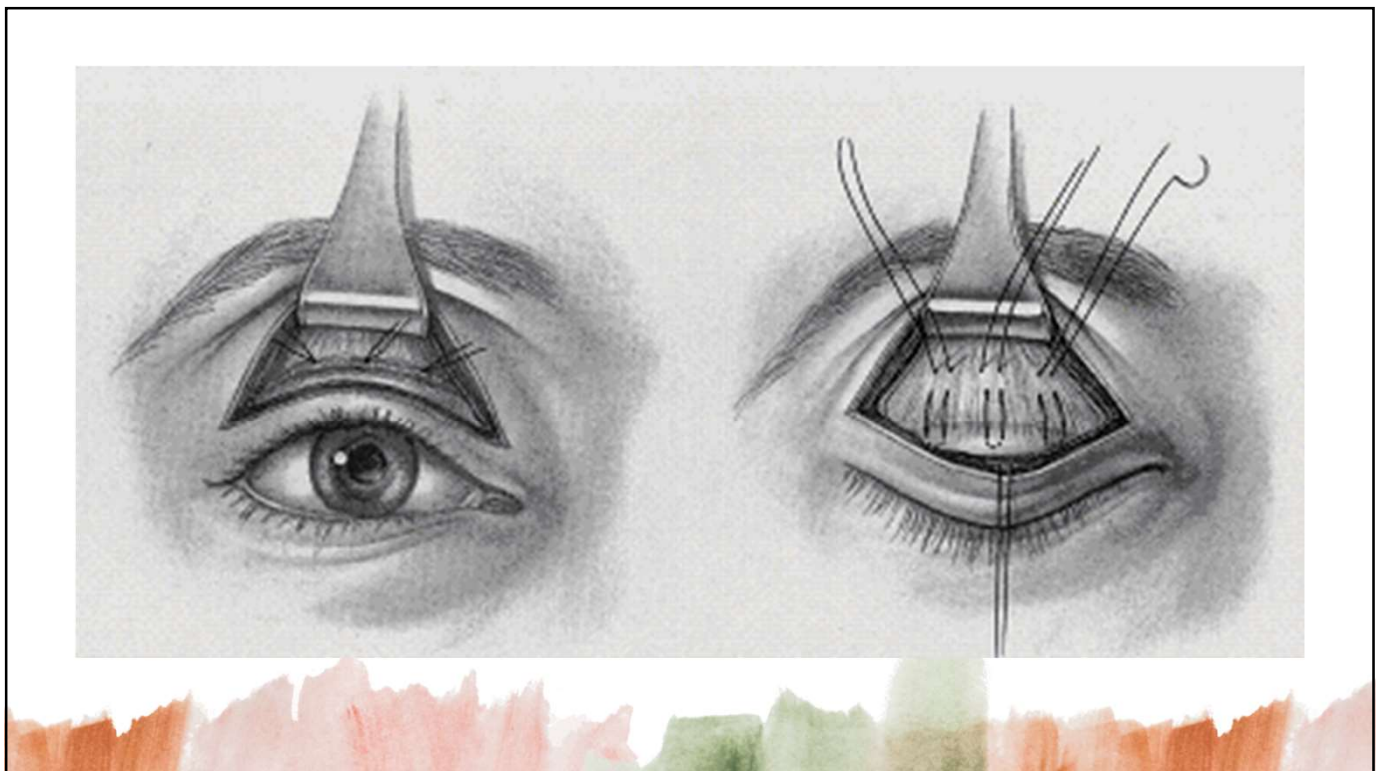
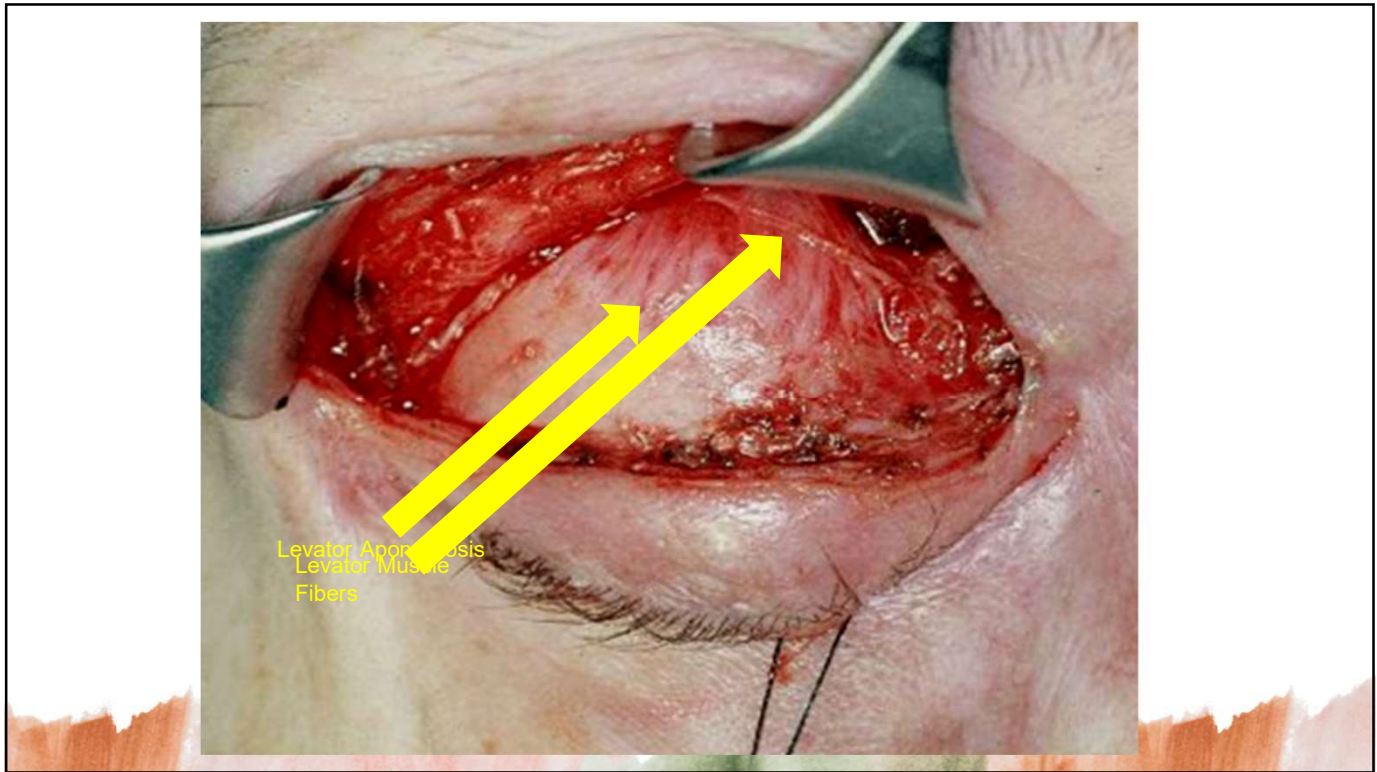
- **LUBRICATION!!!**
 - ARTIFICIAL TEARS
 - GEL DROPS
 - OINTMENT
- DOWNWARD MASSAGE OF THE EYELID
- RELEASE OF UPPER EYELID RETRACTORS IF PTOSIS PERFORMED
- SKIN GRAFT IF TRUE DEFICIENCY OF ANTERIOR LAMELLA

ANTERIOR VS POSTERIOR APPROACH TO PTOSIS REPAIR

ANTERIOR
APPROACH



LEVATOR
APONEUROSIS



POSTERIOR
APPROACH

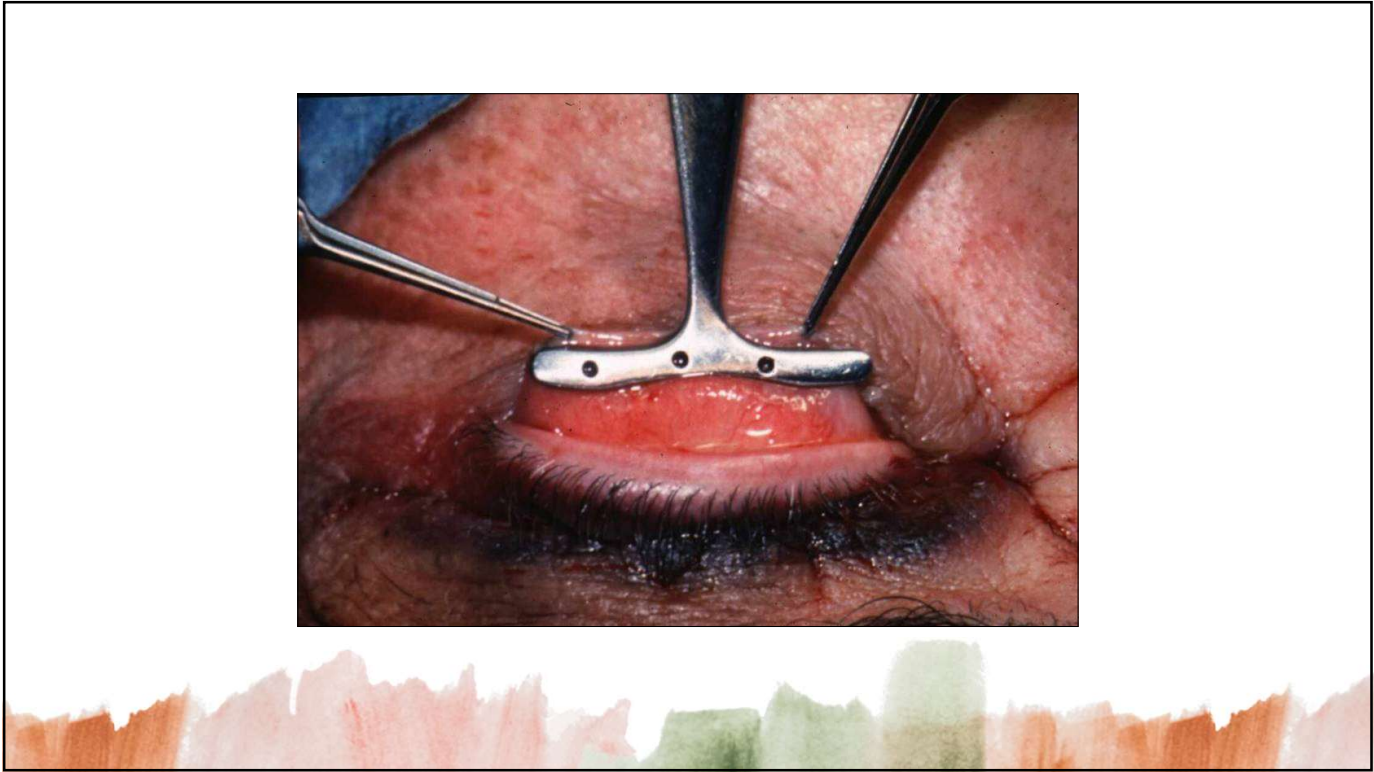
MULLERS
MUSCLE

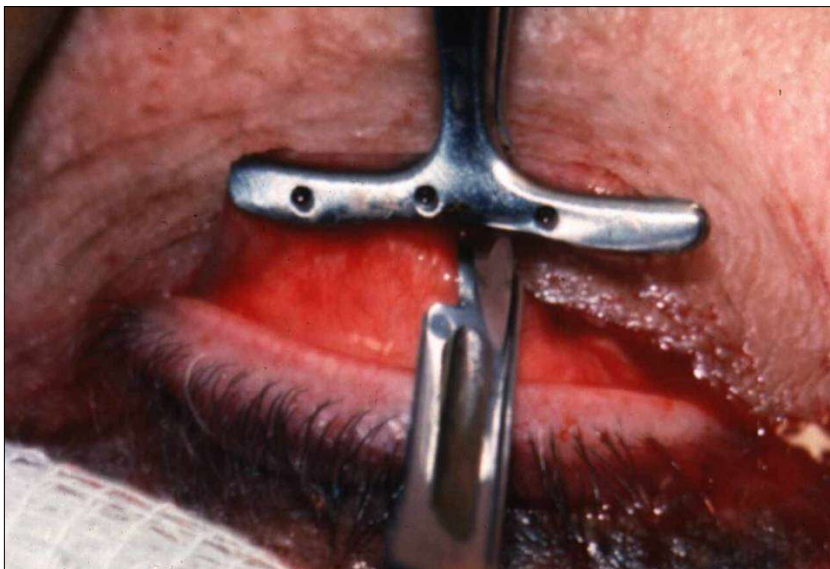
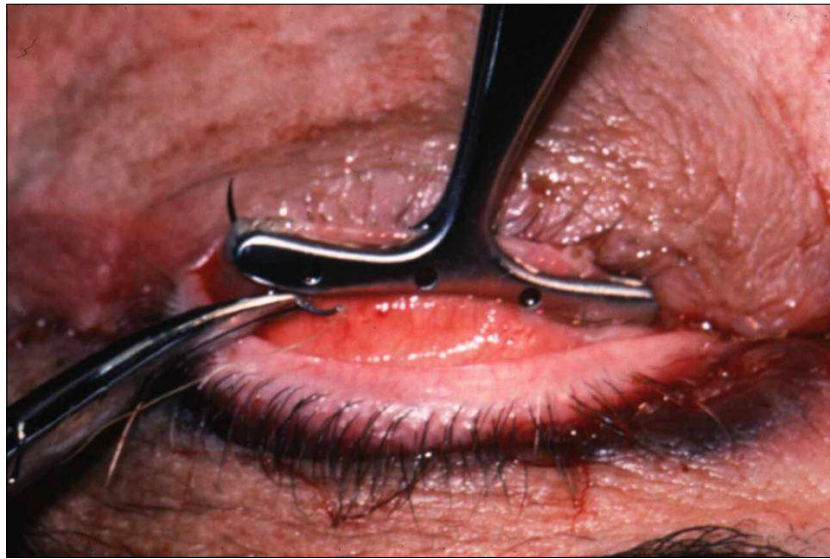


α ADRENERGIC AGONIST \rightarrow MULLERS MUSCLE



PUTTERMAN
PTOSIS CLAMP





“SUTURELESS” PTOSIS REPAIR



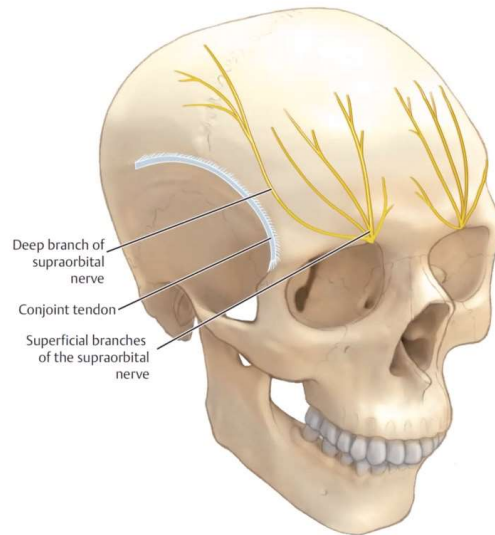
AKA
COSMETIC
PTOSIS REPAIR

Ophthalmic Plastic & Reconstructive Surgery 35(3):290-293, May/June 2019.

OUTLINE

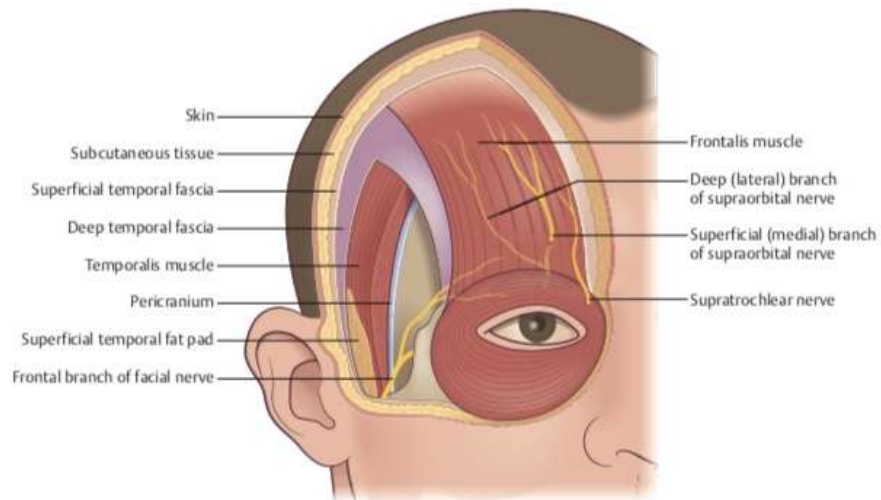
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FOREHEAD ANATOMY



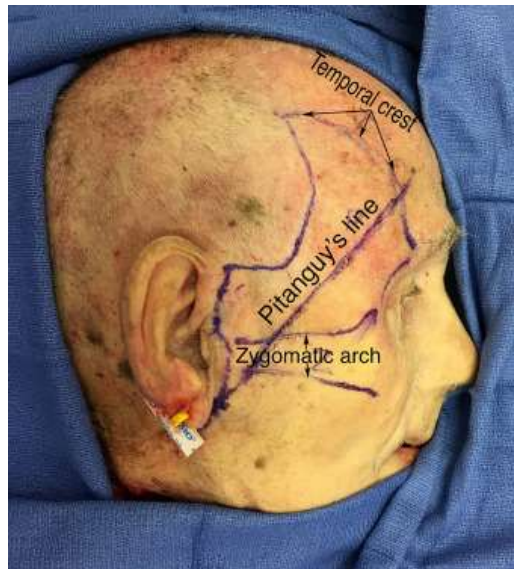
Pu L. Aesthetic Plastic Surgery in Asians. Principles & Techniques. New York, NY: Thieme; 2015

FOREHEAD ANATOMY



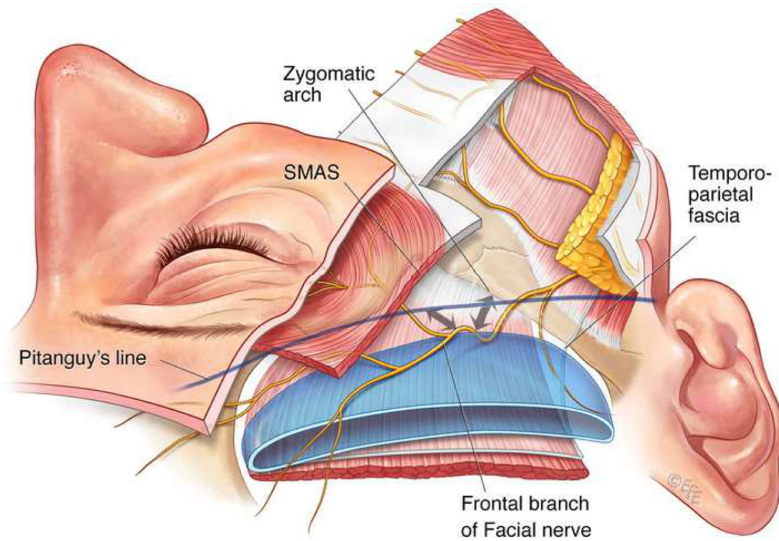
Sokoya M, Inman J, Ducic Y. Scalp and forehead reconstruction. Semin Plast Surg 2018;32(02):90-94

PITANGUY'S LINE

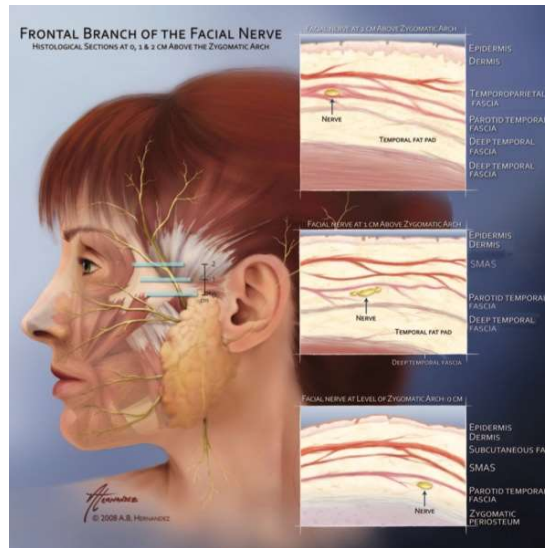


Pankratz, J, et al. Depth Transitions of the Frontal Branch of the Facial Nerve Implications in SMAS Rhytidectomy. JPRAS Open(2020).

PITANGUY'S LINE

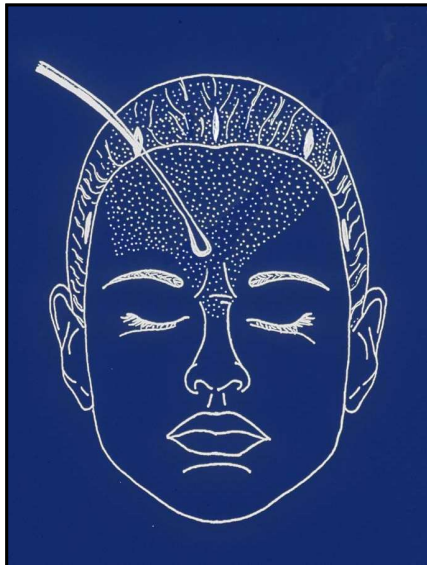


TEMPLE ANATOMY



Tussler, et al. The Frontal Branch of the Facial Nerve across the Zygomatic Arch: Anatomical Relevance of the High-SMAS Technique. Plast Reconstr Surg. 2010 Apr;125(4):1221-9.

CENTRAL DISSECTION



FIXATION OPTIONS

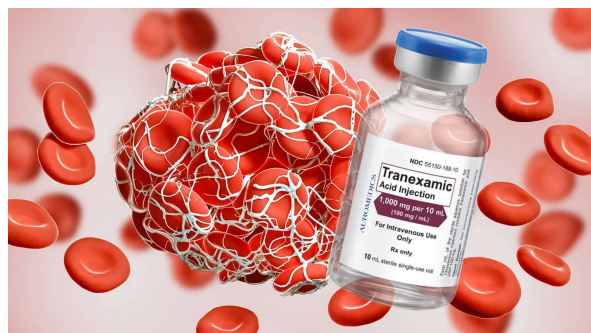
- ENDOTINE
- LACTOSORB SCREW
- DRILL HOLE/BONE TUNNELS

...OR NO FIXATION AT ALL!



TRANEXAMIC ACID (TXA)

- ANTIFIBRINOLYTIC AGENT
- PURPOSE IS TO PREVENT:
 1. INTRA-OPERATIVE BLEEDING
 2. POST-OPERATIVE ECCHYMOSIS
 3. HEMATOMA FORMATION
- ROUTE:
 1. ORALLY
 2. IV
 3. LOCAL ANESTHETIC
 4. TOPICALLY



TRANEXAMIC ACID (TXA) DOSE

LOCAL:

1. ADD 1CC OF 100MG/1CC TXA TO 9CC LOCAL OF CHOICE

→ EFFECTIVELY 10MG/ML OF TXA

2. ADD 1:1 MIXTURE OF 100MG/1CC TXA TO LOCAL → EFFECTIVELY 50MG/ML OF TXA

SYSTEMICALLY: 1 GRAM IV BEFORE INCISION

ORALLY: 1 GRAM 2 HOURS BEFORE SURGERY

A Systematic Review of Tranexamic Acid in Plastic Surgery: What's New?

Kevin Kim, November 2017

Background: Blood loss associated with surgical interventions can lead to several complications. Therefore, minimizing perioperative bleeding is critical to improve overall survival. Several interventions have been found to successfully reduce surgical bleeding, including the antifibrinolytic agents tranexamsic acid (TXA) and epsilon-aminocaproic acid (EACA). TXA has been well studied in other specialties. TXA has been found to be plastic surgery, except in craniofacial procedures. Since the last review, the number of articles examining the use of TXA has doubled, so the use of this systematic review is to update the reader on the current knowledge and clinical recommendations regarding the efficacy of TXA in plastic surgical procedures.

Methods: A systematic literature search was conducted in Medline, Scopus, Cochrane, and Google Scholar to evaluate all articles that discussed the use of TXA in plastic surgery in the field of aesthetic surgery, both oral and intravenous administration.

Results: A total of 275 publications were identified using the search criteria defined above. After examination of titles and abstracts, and exclusion of duplicates, a total of 23 articles were selected for analysis.

Conclusions: The literature shows a clear benefit of using TXA to decrease blood loss in a variety of plastic surgical procedures, with no risk of thrombotic events. Also, TXA, EACA, and fibrin sealants are all effective in decreasing blood loss in plastic surgery, with TXA being the most effective and safe. Further investigation is needed to establish the optimal administration route and dosage of TXA. *Plast Reconstr Surg Glob Open* 2017;9:e2722. doi:10.1097/GS.O0000000000002722. Published online 27 March 2017.

INTRODUCTION

Blood loss associated with surgical interventions can lead to several complications such as hemostasis, and even, more importantly, the need for allogeneic transfusion. Although using fibrin products is an effective method to control perioperative hemostasis, patients can be a life-saving measure, it is associated with several adverse and morbidities complications, increasing morbidity and mortality.

Several interventions have been found to successfully reduce surgical bleeding. Among these interventions, a number of antifibrinolytic agents have been found to be effective in decreasing blood loss in plastic surgery, with TXA, EACA, and fibrin sealants being the most effective and safe. Further investigation is needed to establish the optimal administration route and dosage of TXA.

BROW LIFT COMPLICATIONS

- ETIOLOGY → CAUTERY, TRACTION, DISSECTION

- ALOPECIA

- SENSORY – 6.2%

DYSESTHESIA

NEUROGENIC ITCHING

CONSIDER: ELAVIL, NEUROTIN, LYRICA

- MOTOR - 1.5%

TYPICALLY, FRONTAL BRANCH OF THE FACIAL NERVE

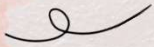
CONSIDER POST-OPERATIVE STEROID (ORAL VS INJECTION)

OUTLINE

- PERIORBITAL ANATOMY
- UPPER BLEPHAROPLASTY
- EYEBROW AND FOREHEAD LIFT

****BREAK****

- LOWER BLEPHAROPLASTY
- HA FILLER AND FAT TRANSFER
- CASE STUDIES



THANK YOU!

QUESTIONS?

DRMARIESOMOGYI@GMAIL.COM