



**DEMYSTIFYING
THE DEEP PLANE
CADAVER DISSECTION
COURSE MANUAL**

PROGRAM

06:00h

Bus departure from Ghent Pillows Hotel (**punctual!**)

- On board breakfast
- Welcome and Introduction to the Dissection Course

08:30h

Arrival CHU Liège, changing in locker room

08:45h

Deep Neck Reduction (P.Tonnard)

10:30h

Face Lift Incisions and Flap creation (A.Verpaele)

12:00h

Lunch

13:00h

Plication Face Lift techniques

- MACS-lift sutures placement (P.Tonnard, A.Verpaele)
- Delta-lift sutures placement (J.Grotting)
- LSD neck lift (P.Tonnard, A.Verpaele)

15:00h

Deep Plane Face Lift (L.Minelli)

- Access
- Dissection
- Danger zones

16:00h

Ancillary Procedures (R.Bensimon, J.Grotting, P.Tonnard, A.Verpaele)

- Auersvald Haemostatic Net
- Gliding Brow Pexy
- Lip Lift

16:30h

Adjourn and return to bus

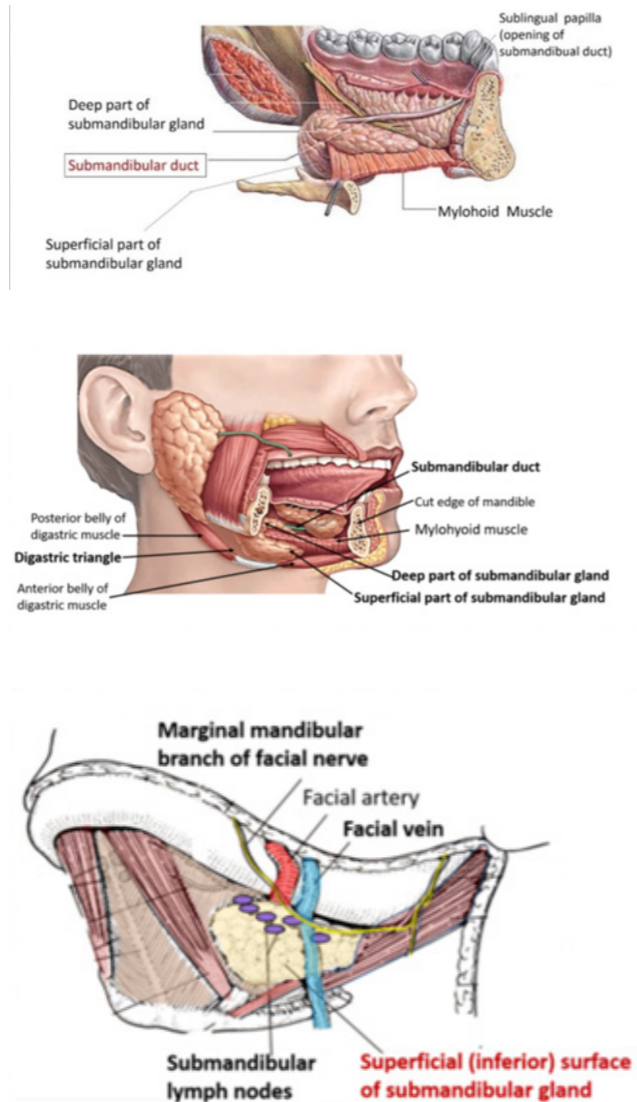
19:30h

Bus arrival @ Ghent Pillows Hotel

DEEP NECK REDUCTION (ANTERIOR NECK)

Deep neck reduction aims to address volume excess in the deep neck structure below the platysma muscle. In contrast with the "superficial" neck lift that rely on subcutaneous fat removal by direct fat excision or liposuction, combined with platysma and skin tightening, a deep neck reduction will focus on the subplatysmal volume reduction by (partial) resection of excess subplatysmal fat, malpositioned digastric muscles and large submandibular glands.

The strategy of deep neck reduction is to sculpt the neck by reducing submental deep neck volume instead of tightening superficial structures. Cadaver dissection of the submental neck region allows you to understand the anatomical basis of neck problems encountered in your facial rejuvenation practice.

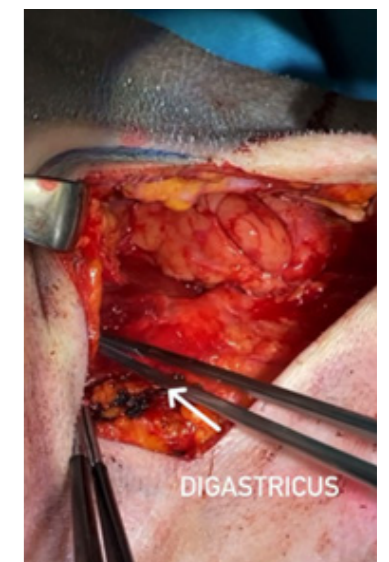
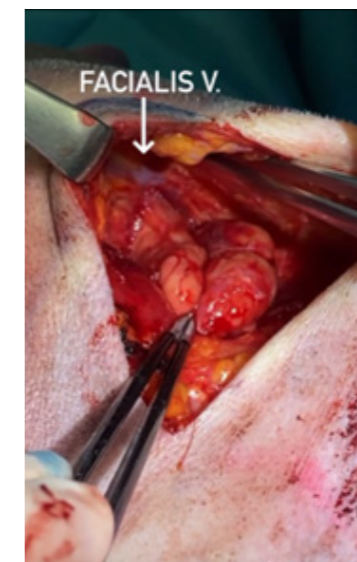
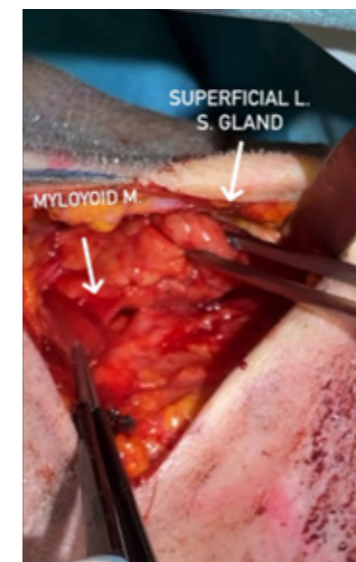


SUBMENTAL APPROACH

SUBMENTAL INCISION & DISSECTION

The best location for the submental incision is 1 to 1.5 cm caudal to the submental crease. Placing the incision in the crease will accentuate the crease. Placing the incision 1.5 cm more caudal allows the incision to be longer without the lateral ends showing up into the jawline and allows to undermine and correct the submental crease, to release the submental retaining ligaments and correct the witch's chin deformity.

- Mark the submental incision 1.5cm caudal to the submental crease
- For the ease of the cadaver dissection, mark a vertical midline incision from the chin to the cricoid cartilage below the thyroid cartilage
- Dissect the neck skin laterally in the level above the platysma muscle. Watch out: in some cadavers the skin may be very thin and it is easy to dissect under the platysma.
- Retract the skin flaps laterally and secure them with sutures or skin staples
- Identify the medial borders of the platysma muscle and continue the dissection under the platysma muscle.
- Each of the two participants dissects one half of the neck. Work as a team. While one person dissects the other helps with retracting the platysma muscle.
- Identify the subplatysmal fat on the midline and follow the fat laterally above the anterior belly of the digastric muscle
- Following the anterior belly of the digastric muscle laterally towards its insertion on the hyoid bone will guide you to the superficial lobe of the submandibular gland
- Resect the subplatysmal fat leaving the fat between the anterior bellies of the digastric muscle intact
- Open the capsule of the SMG on the infero-medial region
- Mobilize the SMG by blunt spreading of your dissection scissors and downward pulling the the gland
- Identify the facial artery and vein lateral of the gland and if present a small branch entering the gland. In live surgery these should be cauterized, clipped or ligated
- Dissect and mobilize the gland until the lateral border of the mylohyoid muscle is visualized, around which the gland folds form superficial lobe to deep lobe. Resect the part of the gland protruding under the mandibular border (palpate the border with your index first)
- In live surgery this is done with the long tipped electrocautery with the suction ready as there is nearly always a pulsating intraglandular artery that needs to be cauterized carefully. If available use Ligasure (see live surgery)



SUBMENTAL APPROACH

SUBMENTAL INCISION & DISSECTION

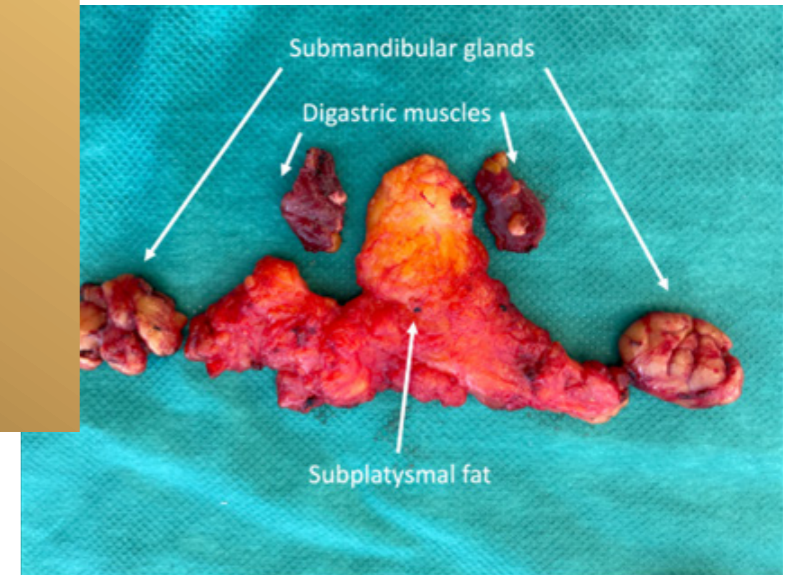
- Check if adequate amount of the SMG is removed by palpating the mandibular border the index finger
- Redrape the skin-muscle flap and evaluate the contour change obtained by removing the SMG
- Examine the fullness of the anterior belly of the digastric muscle. Once the subplatysmal fat and the superficial lobe of the submandibular gland has been removed the fullness of the ABD becomes more obvious.
- Perform a tangential excision of the muscle belly with the scissors, cautery or Ligasure, removing more towards the hyoid bone. Typically 50 to 75% of the muscle is removed. This step is important as only removing subplatysmal fat and SMG will result in a visible ADM and thus inadequate neck contour



- Re-examine the neck contour after complete reduction of subplatysmal fat, SMG and ADM
- Repeat the dissection and resection on the other side changing the role of operator and assistant.

PLATYSMAPLASTY

Platysmaplasty consists of suturing the medial borders of the both platysma muscles together (platysmarraphy) and transecting the platysma transversally (platysma myotomy). Often excess platysma is present and should be excised before the actual raphy



- Estimate horizontal platysma redundancy and evaluate the indication for excess muscle resection
- Perform the raphys starting from the chin towards the thyroid cartilage with 1 layer interrupted buried 3-0 maxon sutures. Continuous suturing will have a purse-string effect resulting in shortening the muscle and creating a visual band.
- Medial platysmarraphy should be completed with a lateral suspension afterwards. If the lateral suspension is performed first, the midline suturing of the medial borders may not be possible because of too much traction.

FOLLOWING SECTION ONLY TO BE PERFORMED AFTER COMPLETION OF THE LATERAL SUBPLATYSMAL DISPLACEMENT NECK LIFT

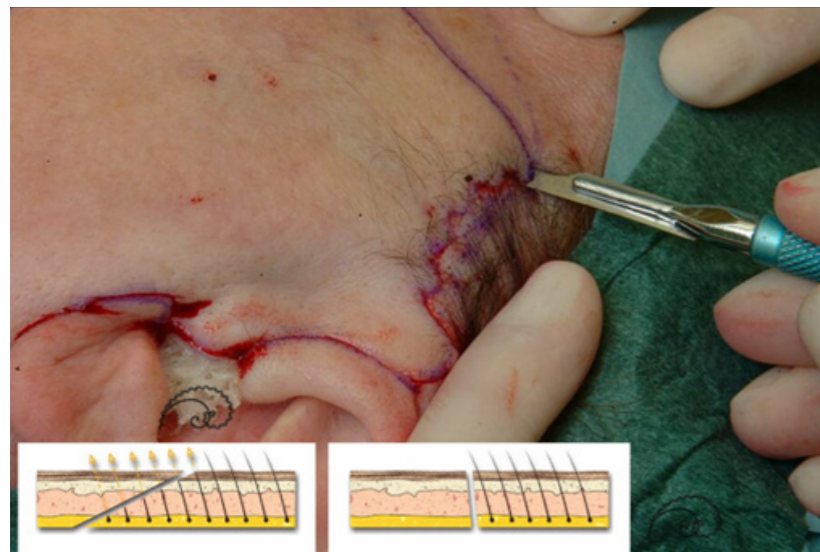
- A transverse platysma transection is usually performed with the scissors or the electrocautery at the mid-thyroid level, starting from medial to lateral as far as possible. The transection can be completed from the lateral approach. The myotomy will effectively correct active platysmal bands.
- After complete transection of the platysma a lateral suspension of the lateral border of the muscle can be performed with a SMAS flap of with the first pursestring MACS-lift suture. This will create an opening of the transection area making relapse of the platysmal band impossible.



FACE LIFT INCISIONS AND FLAP CREATION

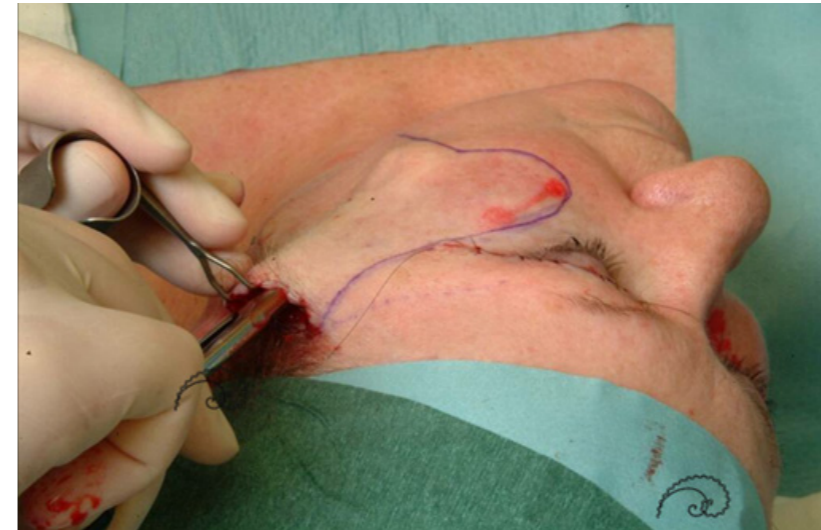


1. Mark on the skin the pre-auricular/retrotragal incision along the natural limit of the auricle, making a 90° angle at the incisura intertragica, following the hairless recess at the top of the auricle and inside the sideburn limit in a zig-zag fashion. Mark the limits of the skin undermining from the skin incision to mid-distance between the tragus and the oral commissure horizontally and from the sideburn down to 2 fingerbreadths below the angulus mandibulae.

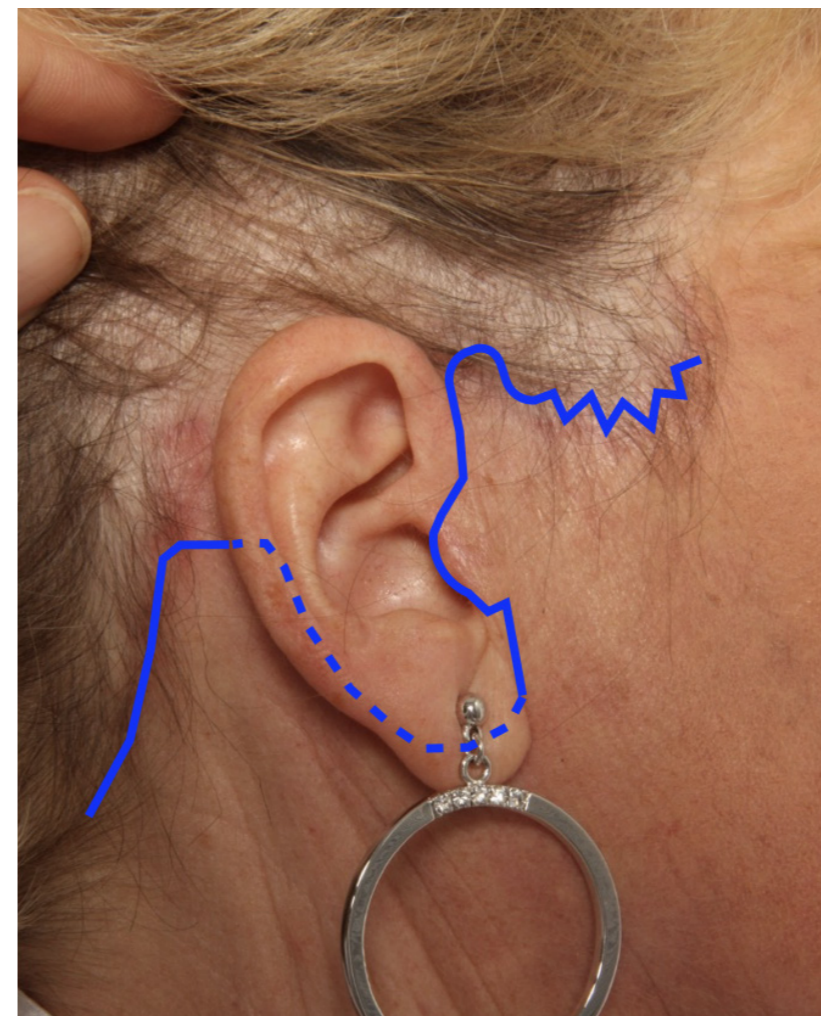


2. Make the skin incision with the 15 blade. The incision at sideburn should be within the limit of the hairline, and blade oriented obliquely down to transect the hair follicles. Dissect the first 1 cm of the skin with the blade in a superficial subcutaneous plane.

FACE LIFT INCISIONS AND FLAP CREATION



3. Create a skin flap of 3-5mm thickness by spreading/cutting scissor dissection. Try to find the plane by observing the skin from the outside. Check thickness of the flap intermittently. Observe the increased difficulty of dissection when reaching McGregor's patch. Dissect 2-3 cm (2 fingerbreadths below the mandibular angle). Observe the appearance of the Platysma Muscle as a pink layer.

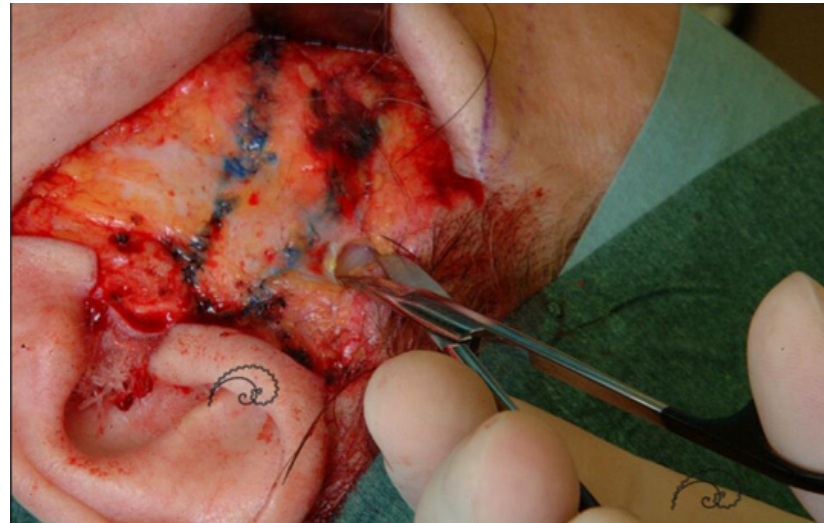


4. Create a retroauricular skin incision along the retroauricular sulcus, then crossing the mastoid skin towards the posterior hairline, and then continuing inside the occipital hairline for 6-8cm.



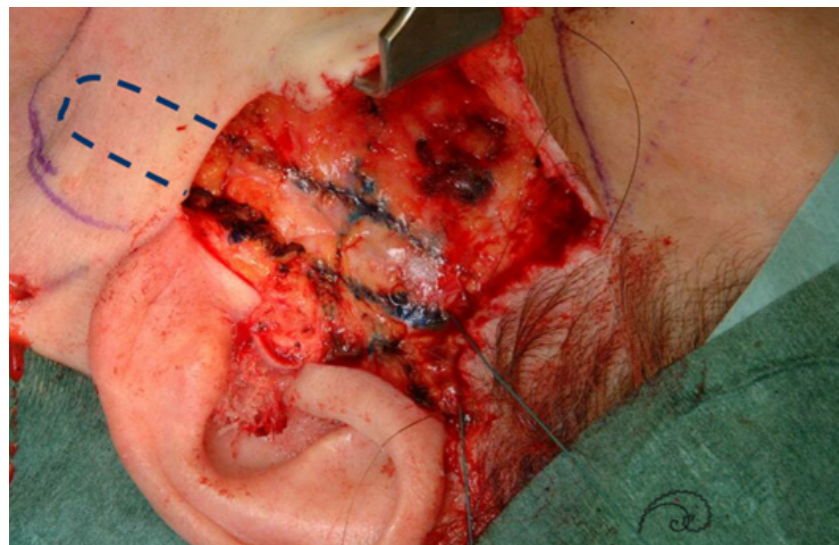
PLICATION FACE LIFT TECHNIQUES

MACS-LIFT SUTURES PLACEMENT

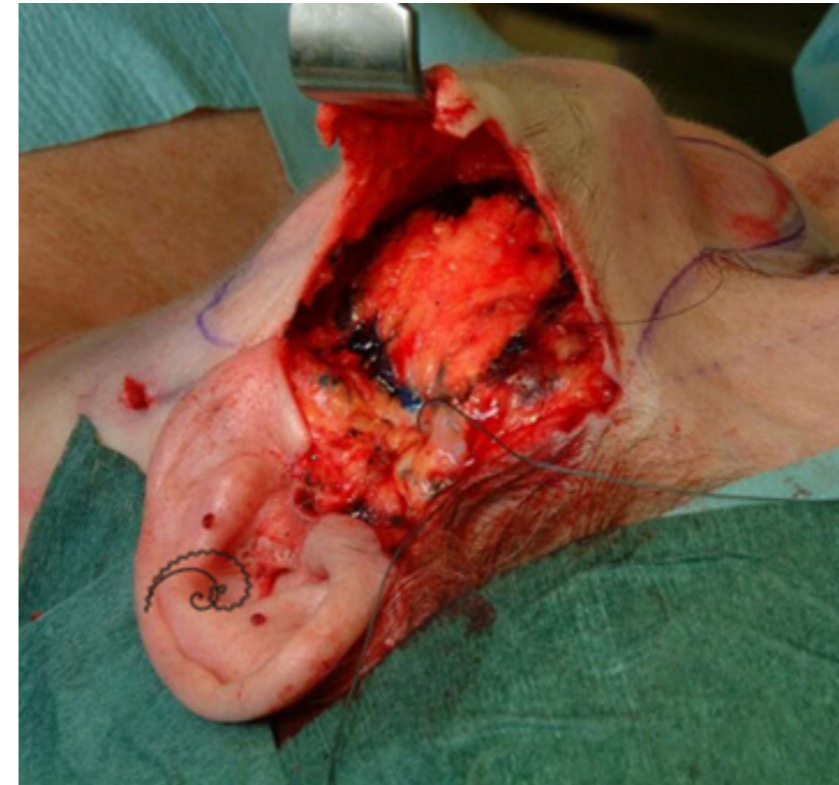


1. Create a window in the SMAS 1cm above the zygomatic arch and 1cm anterior to the helical rim. Observe the superficial temporal a and v. which are usually dorsal from the created window. Observe the deep M.Temporalis fascia on the bottom of the dissection.

2. Place the 1st vertical purse string suture of the MACS-lift with 1cm long bites which are 0.5 cm deep. Tie with maximal tension.



MACS-LIFT SUTURES PLACEMENT



3. Place the 2nd oval purse string suture of the MACS-lift, following the limits of the cheek flap. Take care not to take too deep bites ventrally. Tie with maximal tension.

4. Observe the lifting of the facial features. Observe the skin dimples and release them. Observe the SMAS bulging within the oval suture.

5. Correct the SMAS bulging by either suturing it vertically up, or imbricating it with figure-of-8 sutures. **(do not resect any tissue before having completed the Delta Lift)**

6. Observe the skin excess which is mainly in vertical direction. Observe the appearance of a dog ear beneath the earlobe when orienting the skin redraping backwards.

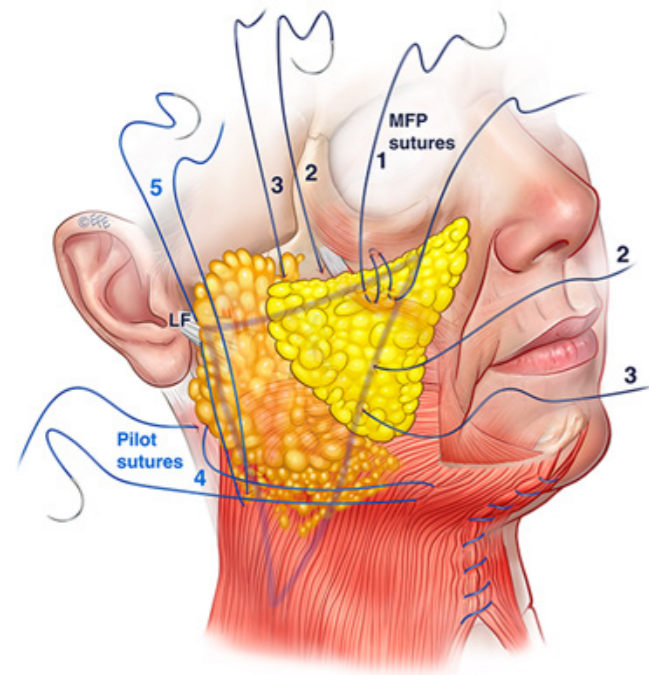
Do NOT resect any skin at this stage!!
Remove the MACS-lift sutures for further placement of the Delta Lift sutures



DELTA-LIFT SUTURES PLACEMENT

The first three instructions are identical to the Macs lift skin flap creation

1. The skin is undermined in the temporal area between the orbicularis oculi and the temporal hairline. The undermining continues over the orbicularis and the malar region inferiorly until the malar fat and "melo" fat is clearly visible. This fat differs from the subcutaneous fat lateral in the face by being, a little lighter, yellow and more fibrous. When it is grasped and moved vertically, one can clearly appreciate a significant effect at the nasolabial fold and oral commissure.
2. The marking for the Delta plication begins at the malar fat pad, just inferior to the malar bone, continues just below the zygomatic arch to approximately 2 cm in front of the skin incision at the tragus. The vertical portion extends down over the mandible, approximately 5 cm below the inferior border of the mandible to the outer margin of the platysma medial to the sternocleidomastoid muscle. The "hypotenuse of the triangle" extends along the mobile fat anteriorly to cross the mandible, connecting the medial extent of the horizontal marking and the inferior extent of the vertical marking. This is most easily located by pushing the anterior mobile fat with the non-dominant hand through the skin vertically or obliquely to identify the tissue that needs to be grasped and pliated.

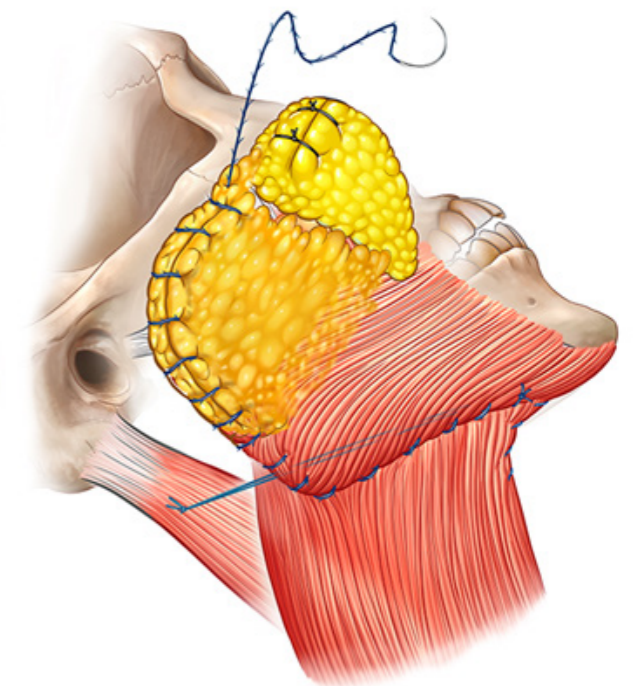
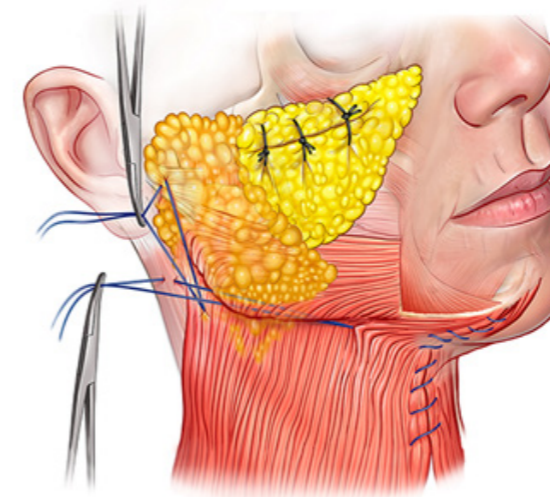


(Images from Grotting J. et al "Superior Vector Plication of the Mobile Anterior Midface: The Delta Facelift", Aesthetic Surgery Journal 2024, Vol. 44(2) 144-159)

3. The first suture is critical and is placed deeply into the malar fat using a 2-0 Vicryl on a large taper needle. After palpating the malar bone, the needle is then passed along the bone, catching the periosteum. The suture is then brought back in a second vector through the malar fat pad and then into the "SMAS" over the malar bone and securely tied. When this is tightened down, one appreciates a significant lifting of the midface, improvement of the nasolabial fold, and elevation of the corner of the mouth. It is not passed through the malar periosteum twice as it is very difficult to tighten if this is done.

DELTA-LIFT SUTURES PLACEMENT

4. Two more sutures are then placed from the mobile anterior fat along the hypotenuse of the markings, moving this fat vertically to the horizontal marking. These sutures are simply in the fatty tissues, and not to the bony periosteum. Otherwise, branches of the facial nerve are at risk as one moves along the arch. The markings are simply a guideline, and the amount of plication is modified according to how loose the tissues are. After three sutures are placed, the fixed SMAS laterally will no longer be loose enough to plicate vertically.
5. In order to create lateral laxity, two pilot sutures or guide sutures are placed to create platysmal and lateral fat laxity. These are similar to "Giampappa or spanning sutures".
6. The remaining plication sutures move the platysma superolaterally to Lore's fascia, and then vertically to meet the original three sutures placed to begin with. These are interrupted 2-0 Vicryl sutures.
7. Finally, the pilot or guide sutures and the entire plication are oversewn with a 3-0 barbed PDS suture.



The first suture extends from the central platysma at the cervicomental angle just above the hyoid extending laterally below the jawline to the sternocleidomastoid fascia. The second suture extends from the lateral platysmal border up to Lore's fascia. When these two sutures are snugged down, the horizontal portion of the submandibular platysma will deepen to better define the CMA, and the lateral platysma will move vertically to create laxity to complete the plication. The gonial angle is better defined. Fat on top of the platysma should be removed by open suction or direct defatting.

The running suture smooths out any of the little hillocks or depressions caused by the plication sutures themselves. The CMA is deepened. One will appreciate a little additional lifting as this final running barbed suture is placed.

LATERAL SKIN-PLATYSMA DISPLACEMENT (LSD) NECK LIFT TECHNIQUE

MARIO PELLE-CERAVOLO

> [Plast Reconstr Surg.](#) 2017 Feb;139(2):308-321. doi: 10.1097/PRS.0000000000003030.

Treatment of Anterior Neck Aging without a Submental Approach: Lateral Skin-Platysma Displacement, a New and Proven Technique for Platysma Bands and Skin Laxity

Mario Pelle-Ceravolo ^{1 2}, Matteo Angelini ^{1 2}, Erminia Silvi ^{1 2}

Affiliations + expand

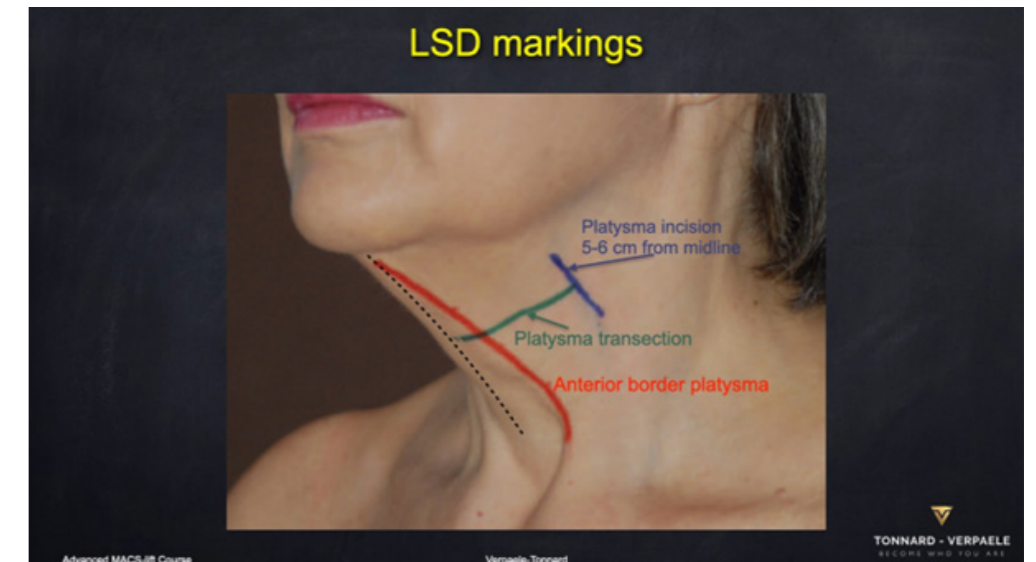
PMID: 28121859 DOI: [10.1097/PRS.0000000000003030](#)

Often added in conjunction with a MACS-lift, the LSD neck lift aims mainly at correcting the lower (infrahyoid) neck laxity and the platysmal banding. It consists of creating a horizontal subplatysmal tunnel, transecting the anterior portion of the platysma, and suspending the cranial myocutaneous platysma flap towards the mastoid, and the caudal towards the sternomastoid muscle fascia.

DISSECTION SCRIPT

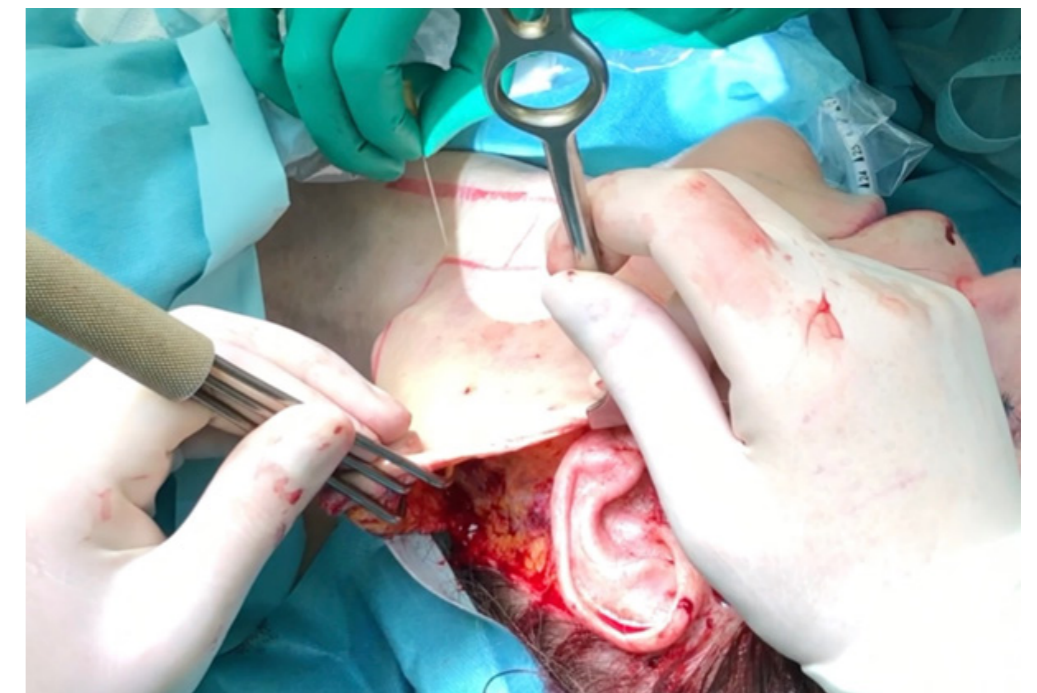
1. Mark on the skin

- Midline
- 5-6 cm from the midline the vertical platysma incision line, with a length of 5cm and starting from 4cm below the mandibular border (purple)
- The horizontal platysma transection line (green) from the bisection of the vertical incision until beyond the anterior border of the platysma (red)
- The skin incision, and extent of subcutaneous undermining



2.

Create a retroauricular skin incision along the retroauricular sulcus, then crossing the mastoid skin towards the posterior hairline, and then continuing inside the occipital hairline for 6-8cm.



3.

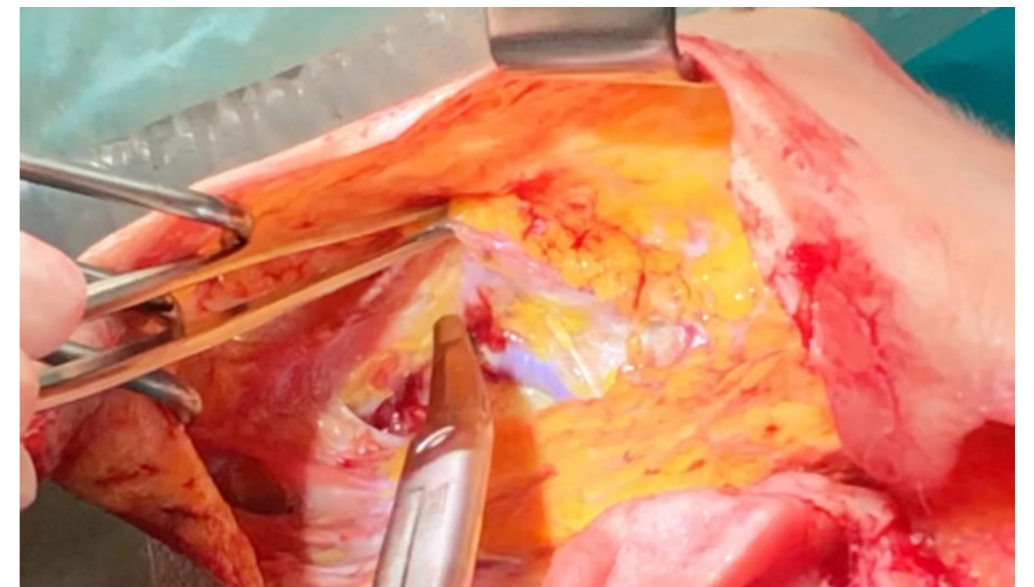
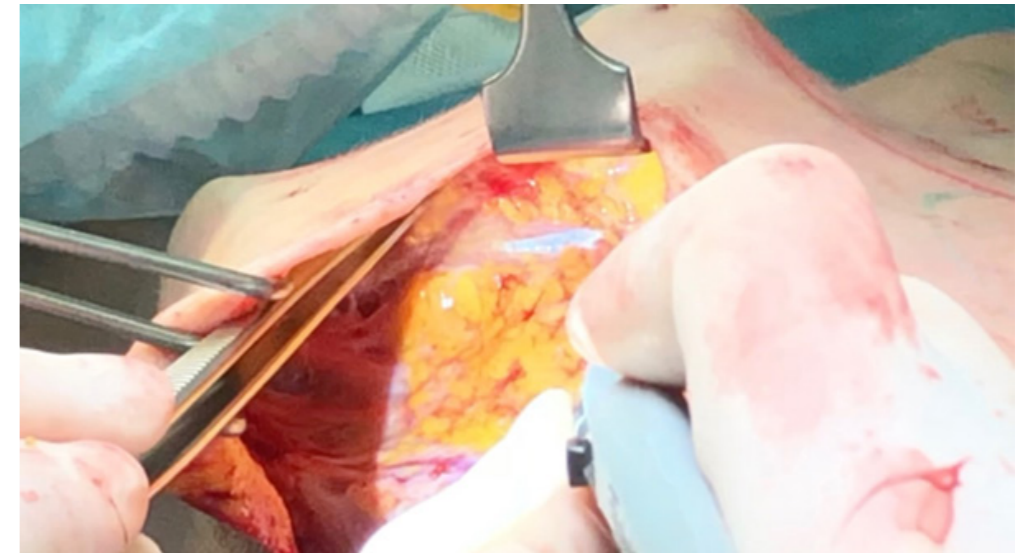
Create a skin flap down to, but not anterior to the "vertical platysma incision line" (purple), and backwards down to the hairline.

4.

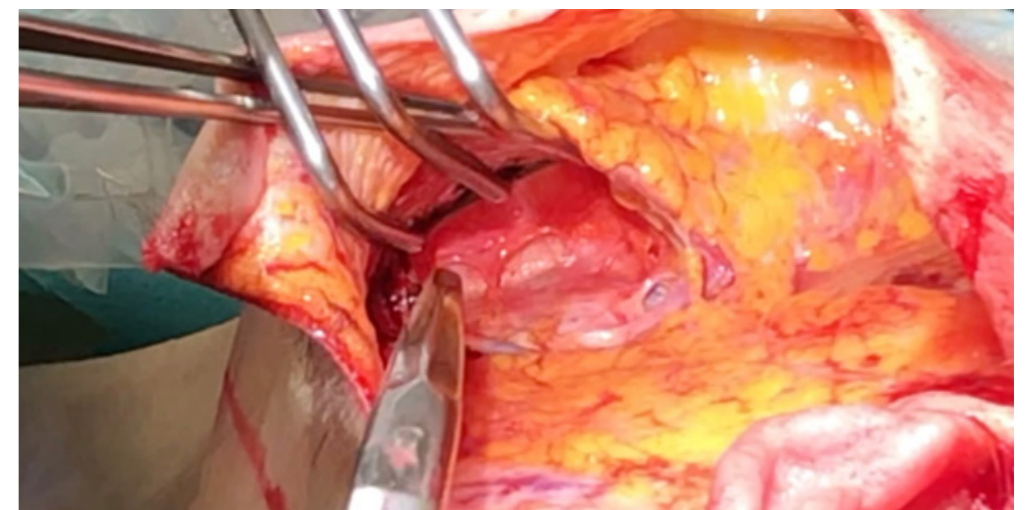
Transfer the position of the purple skin line to the platysma with the help of 2 needles. Mark on the platysma.

5.

Incise the platysma over 5 cm.



Note the position of the external jugular vein. Spreading scissors dissect the horizontal subplatysmal tunnel (5cm wide) until reaching the anterior platysmal border (near mid-line). Note the areolar dissection plane and absence of vital anatomical structures.



6.

Platysma transection (2 options: a. OR b.)

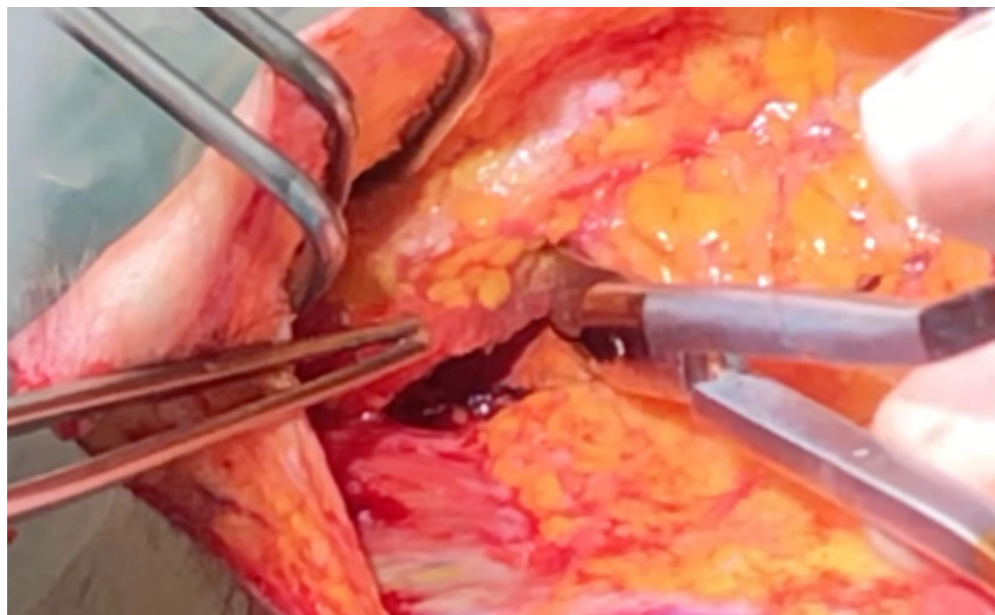
A.

At the level of the transection line (green) create a 1cm narrow subcutaneous platysmal tunnel until the midline. Transect platysma with one blade of the scissors in this tunnel.



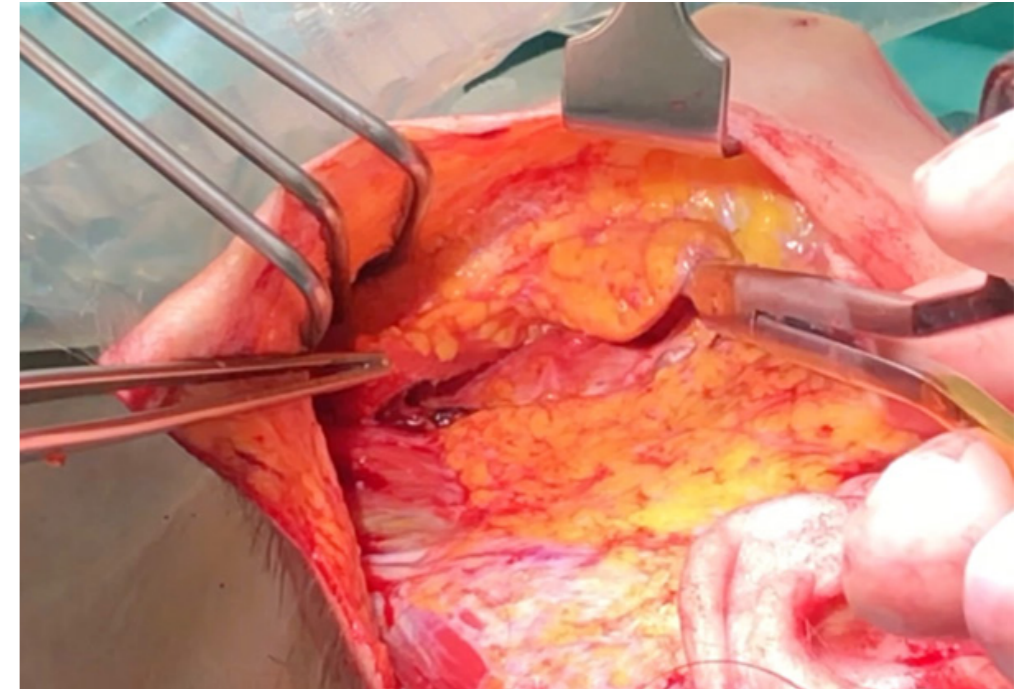
B.

Retract the platysma to expose the subplatysmal surface. Under direct vision scissors gradually transect the platysma with the scissors pointing towards the surface, until reaching the midline. Observe the appearance of the subcutaneous fat as you transect the muscle

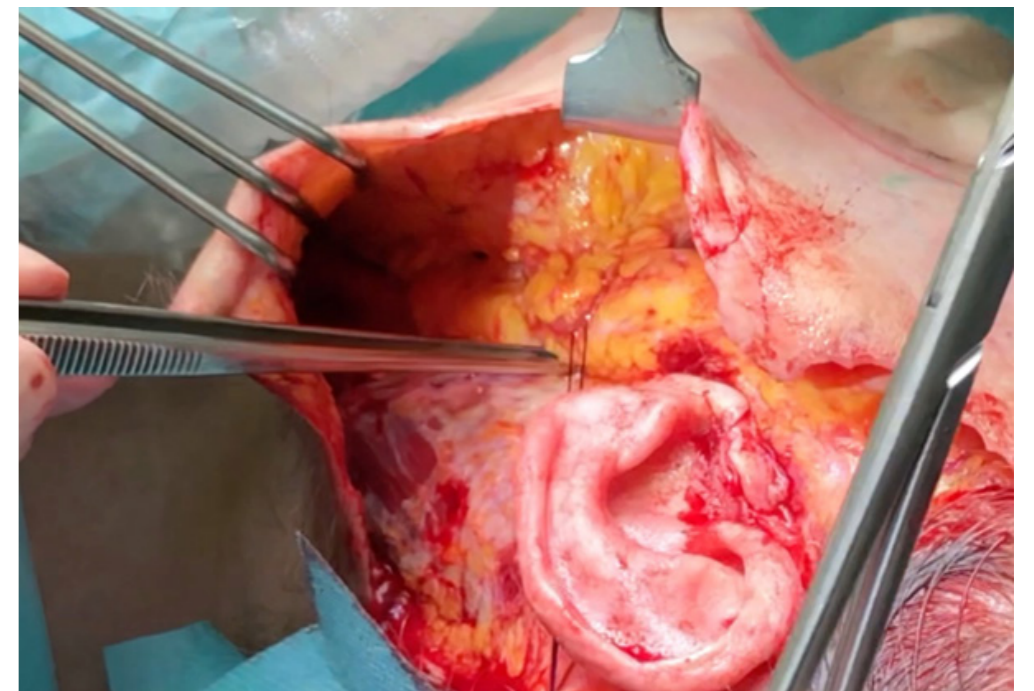


7. Suspension

A. Mark the corner of both cranial and caudal myocutaneous platysma flaps



B. With a strong suture, take a U-shaped bite in the cranial flap, and a second bite on/as close as possible to the mastoid fascia.

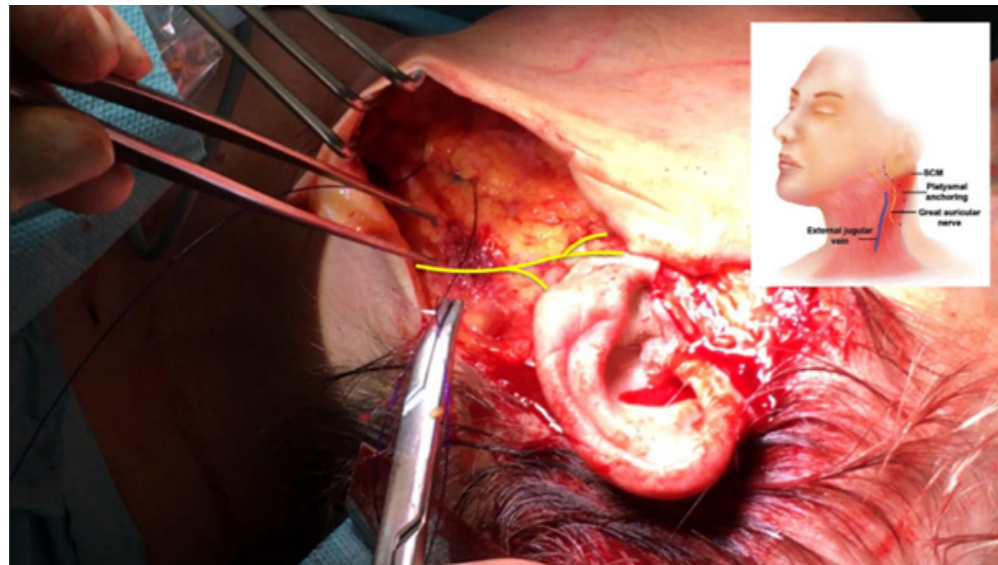


Observe the creation of a cervicomenal definition

C. 2nd suture U-shaped in the caudal flap, dorsally towards the fascia of the sternomastoid muscle.



Observe the N.Auricularis Magnus (Greater Auricular Nerve) running over the sternomastoid muscle. McKinney's point is a classic reference point for the N.auricularis magnus. It is a point 6.5 cm inferior to the external auditory canal and demarcates where the great auricular nerve crosses the middle of the SCM. Avoid impinging the nerve in the suture



8.

Skin redraping: observe the horizontal skin excess and dog ears to manage.

9.

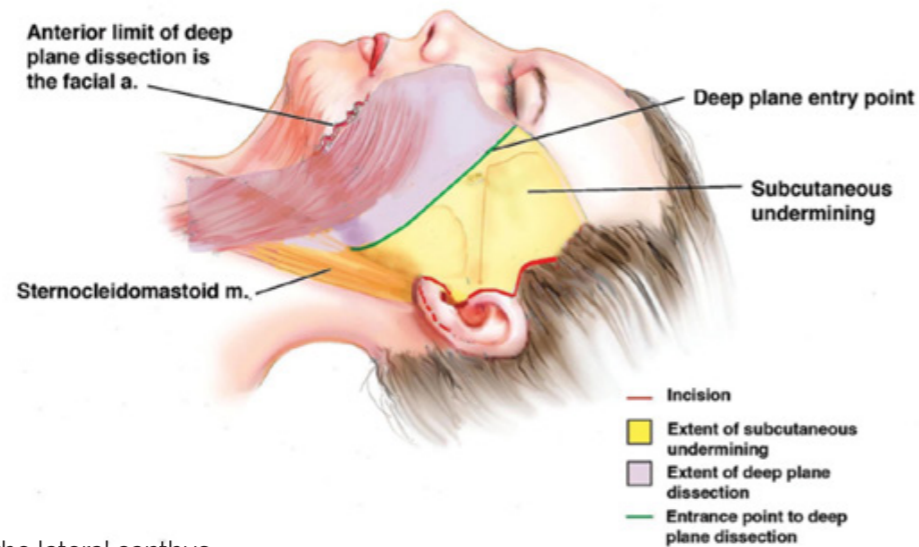
RETURN TO THE "DEEP NECK" FOR transverse platysma transection

DEEP PLANE FACELIFT (L.MINELLI)

DEEP PLANE FACELIFT

STEP 1: MARKINGS

Skin incisions similar to MACS lift, but extended in neck
"Deep plane entry line": to transition from subQ plane to deep plane.



Superiorly: as lateral as 2.5cm from the lateral canthus
= start of the "prezygomatic space" (in SOOF under orbicularis)
(cave: frontotemporal branches crossing middle 3rd of zygomatic arch)

- Inferiorly: as lateral as the angle of the mandible
= start of the "premasseter space" (in parotidomasseteric fascia)
(cave: parotid gland palpate between fingers)
- Neck: anterior border of the SCM, slightly curving posteriorly
(cave: GAN and EJV in SCM fascia)

"Danger triangle" (marginal mandibular n.): Gonial angle – menton – hyoid
Lowest skin crease in neck that needs to be treated

STEP 2: SUBCUTANEOUS INFILTRATION WITH NEEDLE OR CANULA

For hydrodissection, anesthesia, and hemostasis

Target subcutaneous dissection area & slightly beyond + midcheek

STEP 3: SKIN INCISION

DEEP PLANE FACELIFT

STEP 4: SUBCUTANEOUS UNDERMINING

Go just beyond the "deep plane entry line" to later create a SMAS-cuff

Keep close to dermis to keep most fat on face

- (cave: hair follicles in anterior part)

Over the mastoid area & SCM

- (cave: GAN and EJV in SCM fascia)

Can later be extended over temple to redrape excess skin (GBL)

- (cave: frontotemporal branches in innominate fascia)

STEP 5: MARK THE "DEEP PLANE ENTRY LINE" ON THE SUBCUTANEOUS FAT

STEP 6: INFILTRATE THE DEEP PLANE TO DO PRE-DISSECTION

When planning on using nerve stimulator, do not use local anesthetic

STEP 7: SMAS-INCISION WITH N°15 OR N°10 BLADE

The incision from the subcutaneous plane to the deep plane (which is within deep fascia), creates a "SMAS-flap" (normally, with limited subcutaneous dissection, this creates only a small "SMAS-cuff" with most of the deep plane dissection creating a "composite flap" (skin-SMAS composite), but when the subcutaneous dissection has been extensive, this will be a "dual plane" technique with an extensive "SMAS-flap").

Go deep enough, to look for the distinct "areolar" deep plane:

- Superiorly (prezygomatic space): deep to the orbicularis (in SOOF)
- Inferiorly (premasseter space): deep to the platysma (in parotidomasseteric fascia)

Be aware of the following structures:

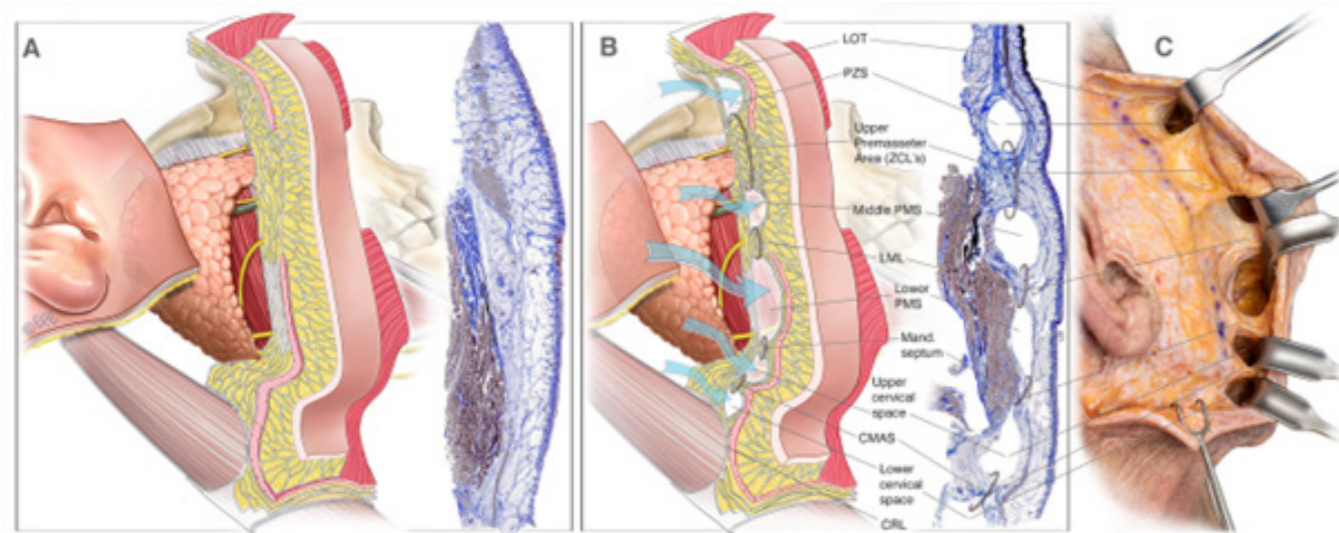
- Parotid gland: it is normal to see the parotid shine through its capsule.
 - Go deep to the transparent parotid capsule; stay on top of it.
 - If you erroneously penetrate the capsule and enter the gland, make sure to later repair the capsule to prevent sialoma.
- Masseter: it is normal to see the masseter shine through the masseter fascia
 - Enter the most superficial aspect of the masseter fascia (cave: the buccal branches are deep within the masseter fascia)
 - If you erroneously enter the masseter muscle, reassess plane

DEEP PLANE FACELIFT

DEEP PLANE FACELIFT

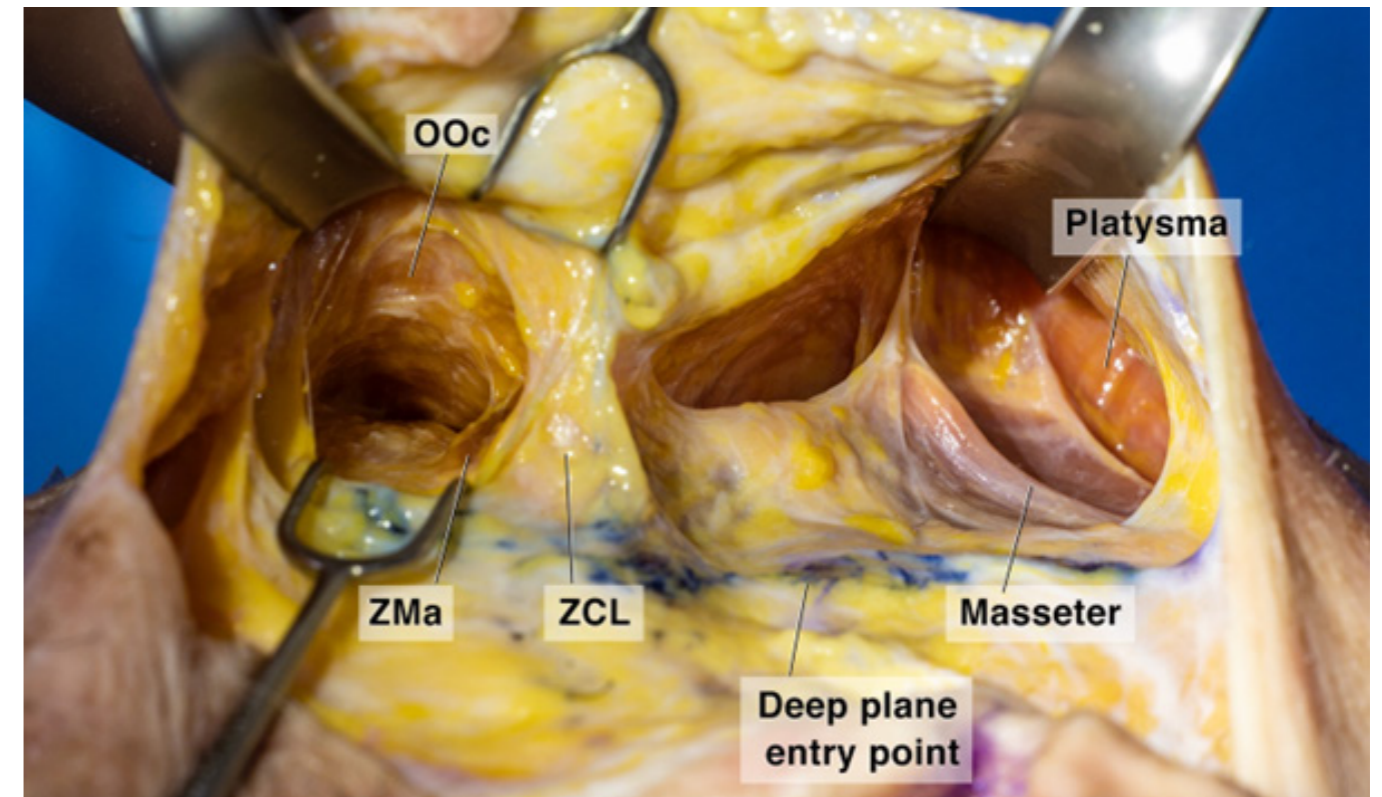
STEP 8: DEEP PLANE DISSECTION

Premasseter space (PMS): goal = identifying the platysma!



Dissect within the parotidomasseteric fascia

- First over the parotid gland over the parotid capsule
- Then over the masseter looking for platysma in the roof of the surgically-created space
- Once the platysma is identified, sharply expose the platysma broadly, to prevent splitting the platysma and to prevent dissecting superficial to the platysma
- Then dissect at the undersurface of the platysma, maximally up to:
 - Anterior border of masseter
 - Facial vessels



Prezygomatic space (PZS): goal = identifying the zygomaticus major!

Bluntly dissect, with a Trepapat dissector, the area underlying the orbicularis oculi muscle, by staying on top of the preperiosteal fat of the body of the zygoma, keeping inferior to the orbicularis retaining ligaments located at the orbital rim to not enter the orbital cavity (preseptal space).

- Identify the zygomaticus major muscle (ZMa):
 - It is safest to identify the ZMa coming from superiorly from the direction of the prezygomatic space, since the "deep plane" extends deep to the zygomatic major muscle, risking injury to the zygomatic branches!
 - ZMa has its origin on the zygomatic bone just medial to the junction of the body and arch of the zygoma and runs in the direction of the modiolus.
 - Once ZMa is identified, dissect sharply over it, keeping all fat in the flap, taking care not to split the ZMa.
(cave: there is usually a minor zygomatic branch running over the ZMa, which innervates the orbital part of the orbicularis oculi, with unknown clinical significance)

DEEP PLANE FACELIFT

The zygomatic ligaments: goal = "full release"!

- The area between the PZS and PMS is most difficult to dissect because the distinction between nerve and ligament requires experience.
- Dissection occurs largely with small increment spreading of fine scissors, to isolate and cut ligaments and preserve nerves
- The extent of how far needs to be dissected is assessed not by pulling on the cuff but by pulling on the furthest dissected part of the flap. Once sufficient lift can be obtained, the dissection is complete.

The neck: goal = wide subplatysmal release (for long-term redraping)!

- Continue subplatysmal dissection (at undersurface of platysma)
- Release cervical retaining ligaments (simply means transition from subQ to deep plane at anterior border of SCM)
- Extend dissection toward midline BELOW the level of the hyoid bone (cave: cervical branches of the facial nerve lower lip pseudoparalysis)
- Extend inferiorly down to lowest skin crease that you want to treat.

OPTIONAL: platysma myotomy at inferior border of mandible

- Across the entire length of the SMAS/platysma-flap (ends before facial artery)
- To augment the gonial angle with double-folded superior part of the flap

STEP 9: PLACEMENT OF KEY SUTURES TO LIFT THE FLAP (USUALLY FROM BOTTOM TO TOP):

Lateral platysma to mastoid: BELOW the gonial angle

- Lifts neck, accentuates gonial angle ("Hammock" effect)

Superior platysma to masseter fascia

- Lifts jowl, tenses jawline

Malar fat pad (MFP) to body of zygoma over ZMa

- Midcheek lift + effacement of nasolabial fold

Inferolateral orbicularis oculi to frontal process of zygoma

- Tensions lower eyelid

DEEP PLANE FACELIFT

STEP 10: CLOSING SMAS-CUFF (OR SMAS-FLAP IN CASE OF DUAL PLANE TECHNIQUE)

Running resorbable suture to lift & close the SMAS-cuff

This closes most subcutaneous dead-space and hence prevents hematoma

STEP 11: GLIDING BROW LIFT (OPTIONAL)

Extended subcutaneous skin-undermining of the non-hair bearing skin of the temple and lateral forehead, to redistribute skin-excess caused by the midcheek lift.

STEP 12: SKIN-PINCH LOWER LID BLEPHAROPLASTY (OPTIONAL)

Removing excess skin of lower eyelid caused by midcheek lift

STEP 13: SKIN RESECTION + SKIN CLOSURE

Leave 1mm "excess" to completely have the skin edges "kissing"

NO LIFTING & NO TENSION

STEP 14: PREVENTION OF SUBCUTANEOUS HEMATOMA (OPTIONAL)

Placement of hemostatic net (Auersvald) to close subcutaneous dead space

Internal quilting sutures to close subcutaneous dead space

Tissue glue to close subcutaneous dead space

Drain in subcutaneous space

AUERSVALD HAEMOSTATIC NET ("A-NET")

The haemostatic net technique was developed by André Auersvald in 2009 and published in Aesthetic Plastic Surgery in 2014. It consists of a suturing technique where a detached flap is oversewn with a continuous running 5-0 or 4-0 nylon suture. The advantages of the Net are twofold:

1. obliteration of any subcutaneous dead space and hence a very effective prevention of postoperative hemorrhage
2. custom redraping possibility of the whole facial and cervical flap allowing smooth contouring and reduction of skin incision length

The whole undermined skin area is to be oversewn. Although there is debate about the orientation of the sutures, some consensus exists to place the facial sutures in rather vertical columns starting from ventral to dorsal, and for the cervical skin in rather horizontal rows. Sutures should hug but not strangulate the skin. They are typically removed after 48 or 72 hours.

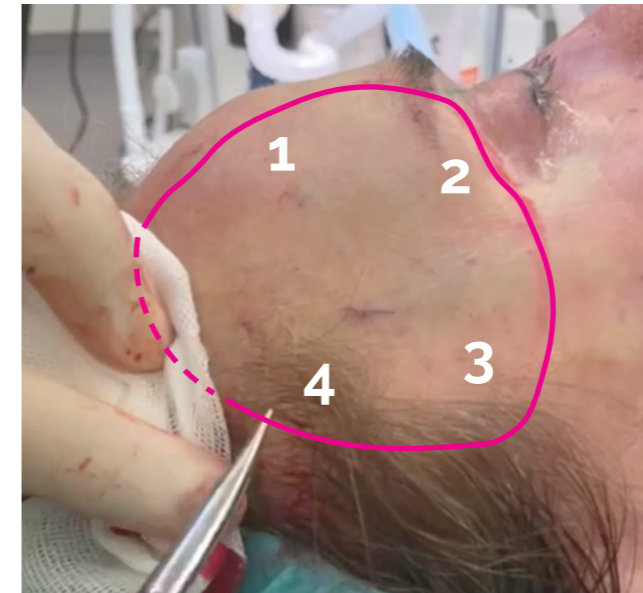


Image by courtesy of Dr André Auersvald

GLIDING BROW LIFT

Published by Fausto Viterbo in 2019, the Gliding Brow Lift is an extrapolation of the "haemostatic net" technique by André Auersvald. Both are Brazilian.

The principle is a wide subcutaneous undermining of the area cranial, lateral and caudal to the lateral 1/3 of the eyebrow, via 1 or 2 stab or minimal incisions. As the dissection is subcutaneous, when properly executed the frontal branch of VII should never be severed.



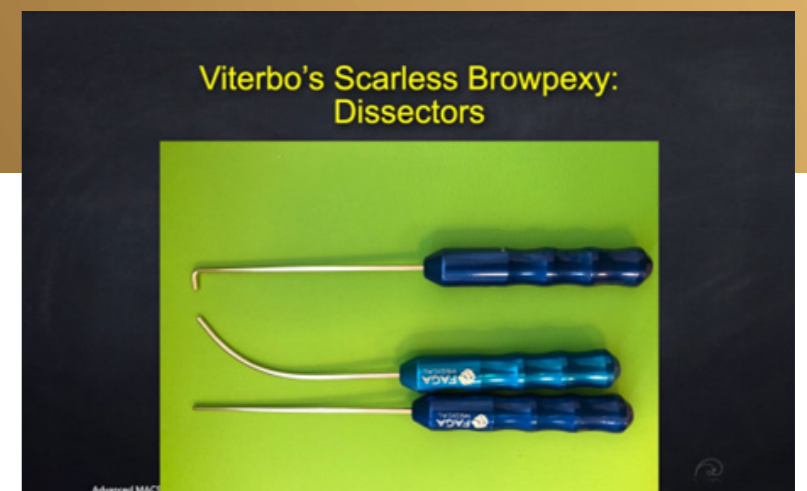
MARKINGS: MARK THE AREA TO BE UNDERMINED

1. from the lateral 1/3-2/3 of the eyebrow vertically up until 1-2cm into the hair bearing scalp
2. from the same point caudally until the orbital rim, following the rim until below the lateral cantal area
3. from there laterally to the sideburn,
4. and connect with the 1st segment 1cm within the hairline

Mark 2 skin incisions of 1cm inside the hairline, one cranial and one temporal

DISSECTION

Originally described as a closed blunt dissection with specific instruments, a blind dissection with fine dissection scissors is less traumatic and more precise. Keep the tips of the scissors directed towards the skin, except underneath the eyebrow follicles. Verify if ALL attachments of the skin are released.



GLIDING BROW LIFT

SUSPENSION

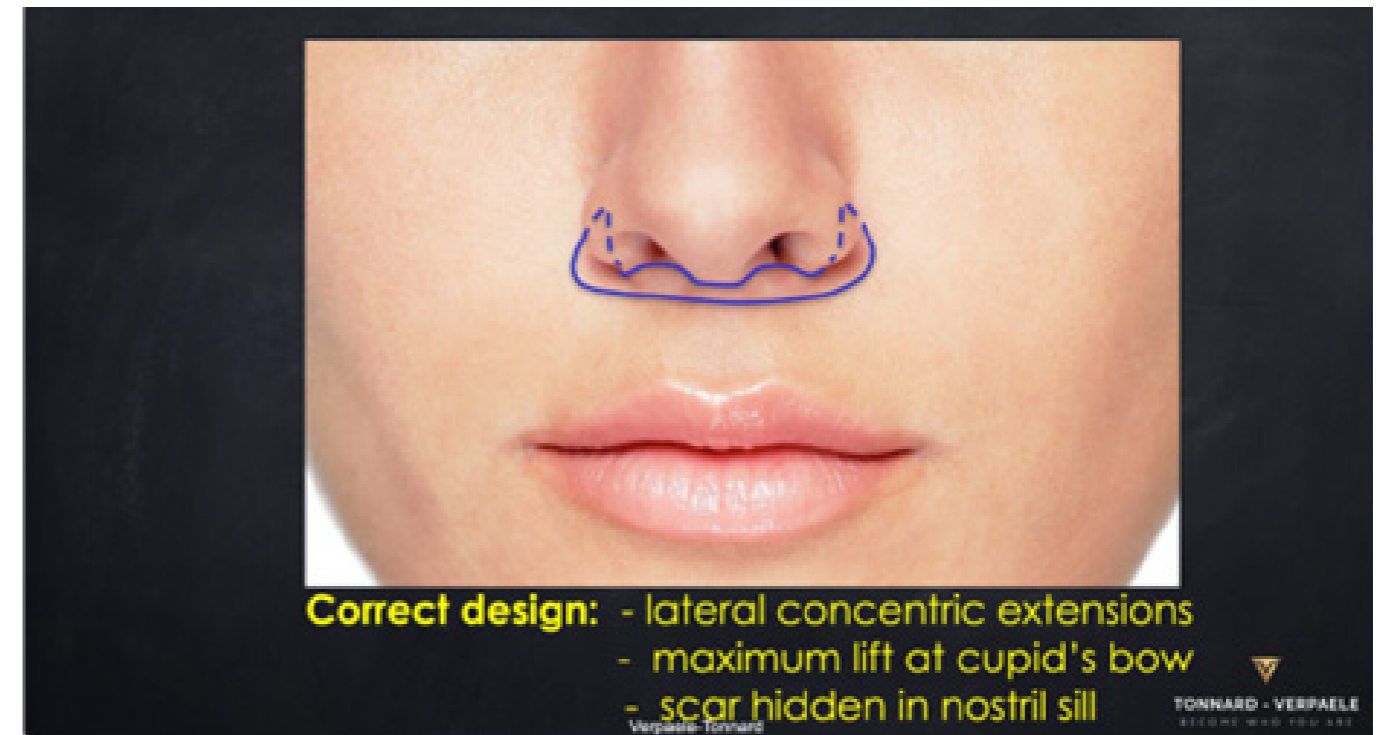
Using either a compress or 2 fine skin hooks the assistant pulls the skin to bring the eyebrow in the desired position, with 20-30% overcorrection. With a 4 or 5-0 nylon suture with long needle (25mm) the whole dissected area is oversewn in a geometrical pattern, with wide bites that need to catch the underlying fascia. The skin hooks are repositioned as needed.



Observe the slight skin fold at the hairline, which can be released by further cranial dissection.

LIP LIFT

A lip lift consists of resecting a segment of subnasal skin at the base of the nose. Many pattern shapes have been described, the most popular being the gullwing or bull-horn shapes where the lower incision follows the shape of the upper incision. This limits the lifting of the Cupid's bow and therefore, in most cases, we use the modified bull-horn pattern as shown below.



1. Infiltrate the upper lip.
2. Mark the upper incision: This creates an adequate lift of the lateral lip and maximal lifting effect at both apices of the Cupid's bow. The upper incision starts along the alar groove, curves along the alar base into the nostril sill to effectively hide the scar inside the nostril and crosses the midline exactly at the columellar-labial junction.
3. Mark the lower incision as a straight line approximately 4 mm below the alar base, and connecting via a curvilinear line with the starting point in the alar groove
4. Make the upper skin incision. It extends through the dermal layer and the superficial fascial layer down to the orbicularis oris muscle.
5. Make the lower skin incision
6. Remove the marked skin segment by sharp blade dissection
7. The caudal skin is undermined for 2 mm to promote skin eversion. (At this stage micrografting to the upper part of the orbicularis muscle near the nasal can be performed in order to soften the columella-labial angle and to accentuate the concavity of the upper lip.)
8. Closure is performed with extreme precision: five buried subcutaneous polydioxanone 5-0 key sutures are placed. The first suture is placed on the midline. Two sutures suspend the lip into the nostril sill. The two lateral sutures recruit the caudal skin medially. Care is taken to anchor these key sutures to the piriform ligament in order to avoid widening of the alar base.

LIP LIFT

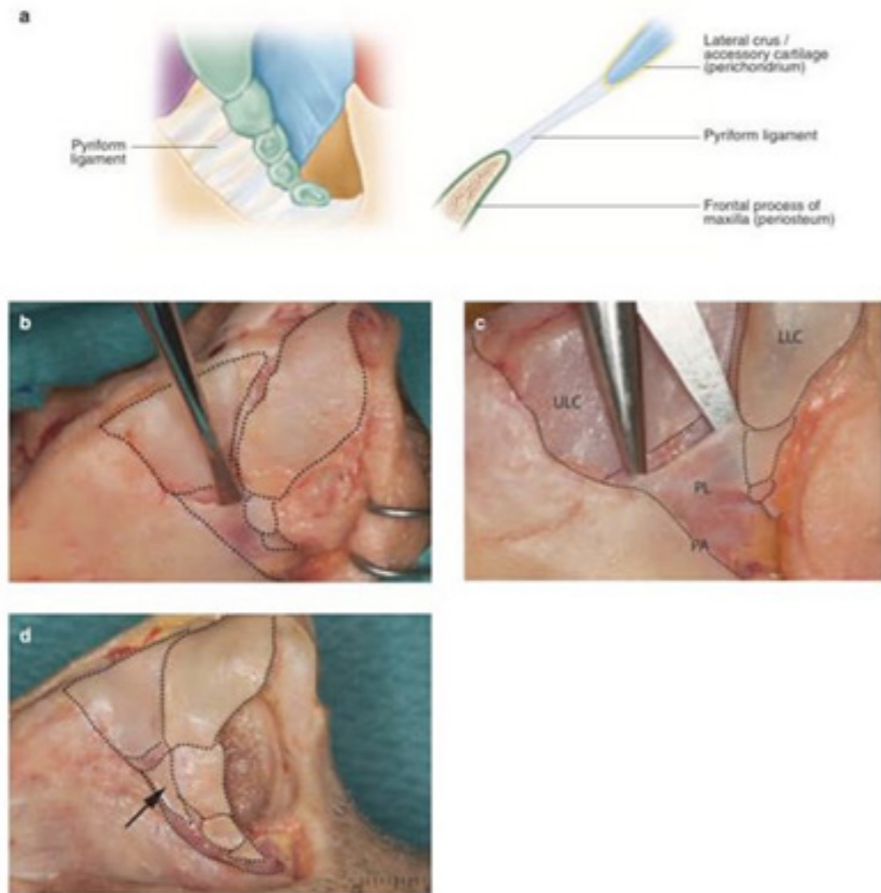


Fig. 1.40 (a) Fusion of the perichondrium and periosteum creates the pyriform ligament (PL). (b, c) The PL overlays the mucosal space. (d) It sometimes contains interspersed sesamoid cartilage (arrow). LLC lower lateral cartilage; PA pyriform aperture; ULC upper lateral cartilage

Numerous surgeons have described a narrow, circular, fibrous attachment beginning at the lateral crus, incorporating the accessory cartilages, and then attaching to the pyriform aperture, but it was Rohrich et al. (2008) who emphasized the more general concept of a pyriform ligament. They found a broad ligament between the bones of the pyriform aperture and the adjacent cartilages. Although the purpose of their study was to describe the static ligamentous connections of the alar base, it was obvious that the pyriform ligament runs in too deep a plane and has no direct connection to the alar base. The *pyriform ligament* is probably a vestigial ligamentous sheet left over from absorption of the cartilaginous capsule between the periosteum of the bony pyriform aperture and the perichondrium of the adjacent cartilages. Despite the advocates of the tripod concept, this ligament does not provide structural support to the tip, but it does reinforce the mucosal space. As surgeons have sought total exposure of the bony vault for piezoelectric surgery, it has become necessary to cut a portion of this ligament (Fig. 1.40).

