



# Extended Advanced Temporal, Face's Neck Deep SMAS Lift

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## Abstract

The goal of extended deep plane face and neck lift for the temporal, facial, and neck regions is to minimize the visible effects of aging and restore a youthful appearance. This technique aims to achieve a smoother contour by tightening the temporal area, laterally elevates the eyebrows, enhancing the cheekbones and jawline, lifting sagging cheeks, softening nasolabial folds and marionette lines, and addressing neck ptosis, cervico-mental angle and the appearance of a double chin. The procedure also targets the restoration of a more youthful, natural look.

Dr Bizrah's modified vertically extended deep plane SMAS technique is specifically designed to achieve the most optimal aesthetic results while minimizing complications, particularly facial nerve injuries. This advanced almost vertical technique involves a comprehensive and continuous dissection of the Superficial Musculo-Aponeurotic System (SMAS) that begins approximately 8 cm above the auricle, where the incision is placed. The dissection extends downward through the cheek, incorporating the SMAS layer, and continues down under the Neck platysma along the anterior border of the sternocleidomastoid muscle, extending to the lower neck just above the clavicle.

The expansive dissection area, which spans a larger and longer portion of the SMAS layer, allows for a greater and more natural lift, particularly in patients with moderate to significant facial aging. The result is a more sculpted and rejuvenated facial appearance with minimal tension on the skin, which reduces the risk of complications and improves long-term results.

In this article, a detailed, step-by-step explanation of the technique, will be discussed to provide a comprehensive understanding of this advanced procedure.

**Keywords:** Face and neck lift, SMAS technique, Aging, Youthful appearance

## Operative Techniques (Bizrah Modification)

The principle of the Bizrah modification involves the creation of an extended, large, deep SMAS (Superficial Musculoaponeurotic System) flap that spans vertically from the high temporal region, extending downward to the lower neck just above the clavicle. This technique serves as both an extension and a refinement of the Mendelson and Botti methods, combining elements of both to achieve more comprehensive facial rejuvenation. The Bizrah modification aims to provide enhanced lift and support across a broader area, addressing both the upper, lower facial and submental regions with improved precision and durability.<sup>1-4</sup>

### Marking the skin incision

The patient is positioned upright, and the planned skin incision is marked accordingly. The anterior, inferior, and posterior boundaries of the dissection are clearly defined. Areas prone to rapid fat deposition, such as the submental region, as well as zones

of tissue atrophy, are identified and specifically noted for further attention during the procedure Figures 1-5.

### Marking dangerous zones: Figure 1

- 1) Temporal danger zone:** The frontal branch of the facial nerve typically runs approximately one finger's width lateral to the lateral corner of the eyebrow. Given anatomical variations, a two-finger margin from this point is marked to avoid potential nerve injury, as the nerve lies deep to the deep temporal fascia in this region. Therefore, SMAS dissection is contraindicated close to lateral eyebrow.
- 2) Mandibular danger zone:** The mandibular branch of the facial nerve traverses around the mandibular angle and anteriorly along the jawline. As such, a one-finger margin above and below the jawline is considered a prohibited area for deep SMAS dissection, with only skin flap elevation permitted in this zone.

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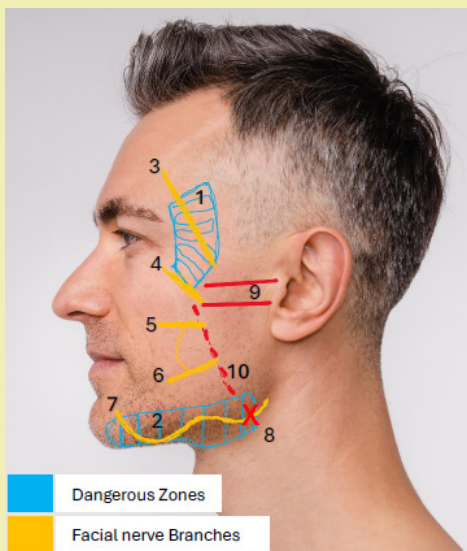
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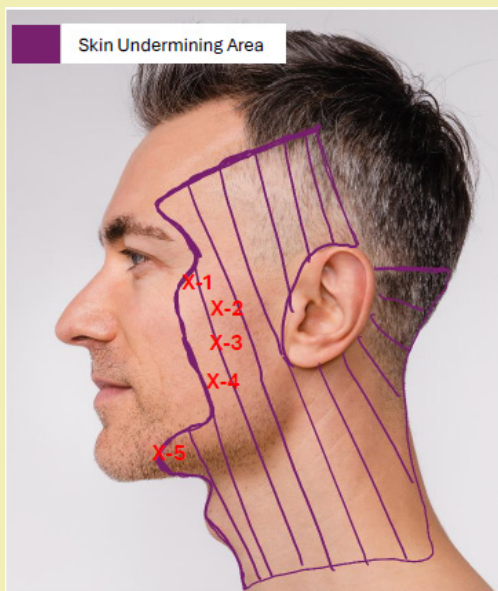
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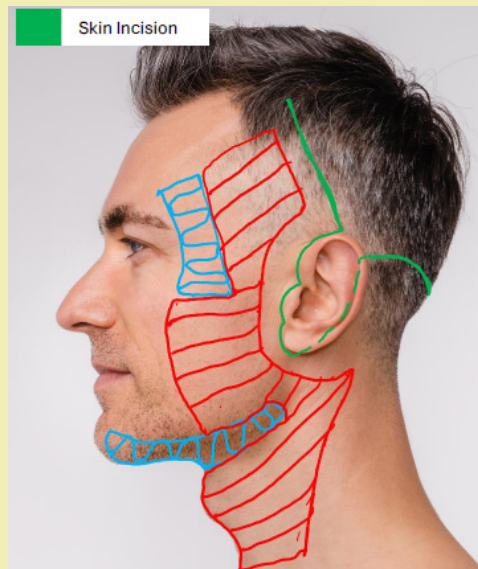
- 3) **Buccal branches:** The buccal branches of the facial nerve run superficially across the anterior borders of the masseter muscle. Consequently, deep SMAS exposure should be avoided anterior to the masseter muscle to prevent nerve damage.
- 4) **Zygomatic branch:** The zygomatic branch innervates the orbicularis oculi muscle. SMAS dissection should be avoided one finger anterior to the line extending from the lateral canthus to the angle of the mandible to preserve the integrity of the nerve.<sup>5-9</sup>



**Figure 1:** Marking dangerous Zones and Branches. 1. Temporal Zone, 2. Mandibular Zone, 3. Frontal Branch, 4. Zygomatic Branch, 5. Upper Buccal Branch, 6. Lower uccal Branch, 7. Mandibular Branch, 8. Angle of Mandible, 9. Zygomatic arch, 10. Boarder of masseter muscle



**Figure 2:** Skin Undermining area and division of retaining ligaments (1-Zygomatic, 2,3,4- Upper, Middle and Lower pre masseter ligaments. 5-Mandibular). Ligaments should be divided under both skin and deep SMAS, in order to freely mobilize the flap



**Figure 3:** The Bizrah Widely Extended Deep SMAS Facelift, More Vertical extension in the temporal area, cheek and lower neck



**Figure 4:** Skin Incision- Female (behind tragus)



**Figure 5:** Skin Incision- Male. On pre-auricular hairline in order to avoid hair at tragus for easy shaving

### Facial nerve monitoring

A facial nerve monitoring system with four channels was employed to minimize the risk of nerve injury and prevent facial weakness. The use of facial nerve monitoring has significantly improved patient outcomes by reducing the incidence of facial nerve branch injuries to nearly 1%. Any postoperative weakness that occurs is typically a neuropraxias attributed to factors such as excessive stretching, cautery heat, or edema, all of which generally resolve completely within six months. With the use of this monitoring system, direct injury to the facial nerve is virtually impossible, ensuring a higher level of safety during the procedure Figures 6,7.



**Figure 6:** Intraoperative Facial nerve probs for monitoring, monitors up to four channels of nerve-muscle combination



**Figure 7:** Facial nerve Monitoring Device, help surgeons to locate, monitor and identify the nerve. Also confirm nerve integrity at the end of surgery

### Local anaesthesia

Tumescent solution is infiltrated into the planned surgical areas of the face and neck. The tumescent fluid consists of 1g lidocaine, 1mg epinephrine, and 10mg sodium bicarbonate, dissolved in 10mL of solution. This is then mixed with 1000mL of 0.9% physiological saline. This formulation provides effective local anaesthesia and minimizes bleeding and provides a clear dry field during the procedure Figure 8.<sup>10,12</sup>

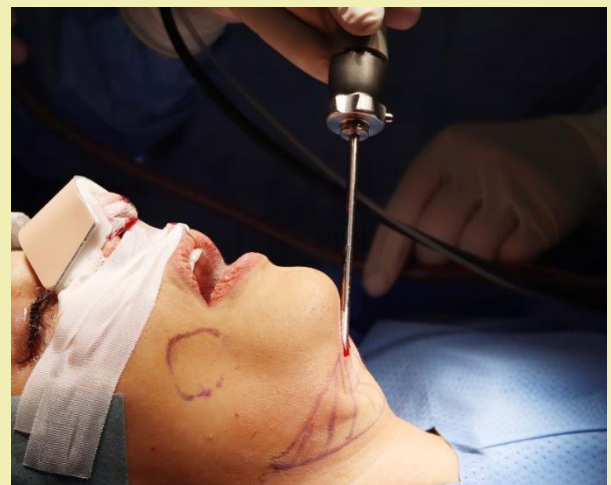
### Submental neck liposuction

Submental liposuction is performed prior to the main procedure

using a fine, blunt cannula. Careful attention is required to avoid extending the liposuction laterally along the jawline, as this could risk trauma to the mandibular branch of the facial nerve. Proper technique ensures effective fat removal while minimizing the potential for nerve injury Figure 9.



**Figure 8:** Infiltrating the full surgical field (Temporal, Face and Neck) using Tu:mescent fluid. Then wait for 20 minutes



**Figure 9:** Submental Liposuction (Using fine Cannulas. Do not go along jawline to avoid mandibular branch injury)

### Skin incision

- 1) **Female:** The incision is initiated in the temporal region, approximately 6 cm behind the hairline and 10 cm above the auricle. It extends inferiorly and posteriorly to the junction of the antihelix with the temporal skin. From there, the incision continues inferiorly along the preauricular crease to the tragus, passing just behind the tragus within the ear. The incision then curves around the earlobe, 2 mm below its crease, before angling upwards and continuing superiorly on the medial surface of the concha, 5 mm above the postauricular sulcus. It extends further to the junction of the inferior crus with the helix



rim. At this point, the incision angles 90 degrees and proceeds horizontally in the occipital skin, just anterior to the posterior protuberance. Finally, it is angled at 45 degrees downwards for approximately 2 cm Figure 10.

- 2) **Male:** The incision follows a similar path as described for females, starting 6 cm behind the hairline and 10 cm above the auricle. However, in males, the incision is made 5 mm anterior to the tragus along the preauricular crease to avoid interference with beard growth in the ear region. The rest of the incision follows the same course as in females, curving around the earlobe, angling superiorly along the concha, and continuing horizontally in the occipital region, just anterior to the posterior protuberance. It finishes with a 45-degree downward angle for about 2 cm Figure 11.



Figure 10: Skin Incision- Female (behind tragus)



Figure 11: Skin Incision- Male. On pre-auricular hairline in order to avoid hair at tragus for easy shaving

### Skin undermining

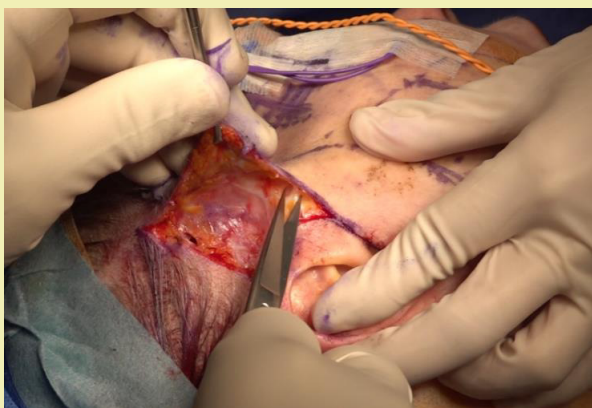
- 1) **Temporal area skin:** The flap is elevated meticulously in a superficial plane, taking care to avoid damaging hair follicles and ensuring the dissection does not extend too deep into the superficial temporal fascia. The superficial

temporal fascia must be preserved. The temporal skin dissection progresses medially and anteriorly towards the lateral eyebrow and the orbicularis muscle, staying just beneath the skin to protect the frontal branch of the facial nerve. The dissection continues inferiorly to the zygomatic arch, remaining in superficial plane. The frontal branch of the facial nerve emerges from beneath the periosteum at the zygomatic arch, running approximately one finger's width lateral to the eyebrow, deep to the deep temporal fascia Figure 12.

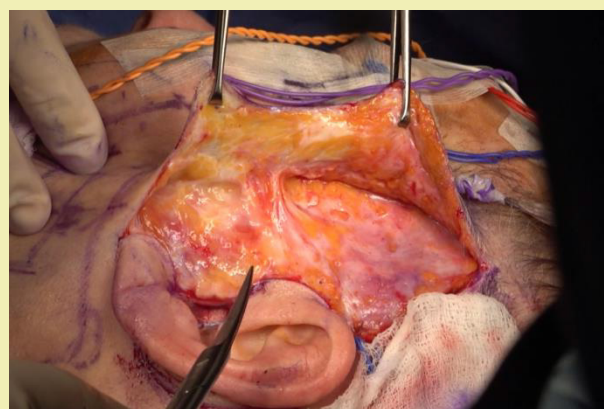
- 2) **Cheek skin dissection:** The skin dissection is extended inferiorly to the cheek, ensuring that adequate subcutaneous tissue is left intact to preserve the cheek SMAS, thereby maintaining its thickness and preventing tears during elevation. The anterior boundary of the skin undermining follows a line approximately one finger's width anterior and medial to a line extending from the lateral canthus to the angle of the mandible. Further dissection anteriorly is unnecessary, as the SMAS becomes indistinct beyond the anterior border of the masseter muscle. Additionally, the buccal branches of the facial nerve lie superficially in this region, increasing the risk of injury. Retaining ligaments are divided progressively to free the skin, preventing any dimpling of the flaps Figure 13.
- 3) **Neck skin undermining:** The skin flap is elevated in the neck, starting behind the ear and extending to the suboccipital region, then towards the sternocleidomastoid muscle, progressing down the lower neck just above the clavicle and anteriorly towards the midline. Care should be taken to leave sufficient subcutaneous tissue over the platysma to maintain a thick SMAS layer, ensuring optimal results and minimizing the risk of complications. Also retaining ligaments are divided progressively Figure 14.<sup>13-17</sup>

### Outlining the pre-masseter retaining ligaments: Figures 6,15

- 1) **Inferior pre-masseter ligament:** This ligament is outlined by a line drawn from the lower border of the tragus to the corner of the mouth.
- 2) **Middle pre-masseter ligament:** A line is drawn from the upper border of the tragus to the alar base.
- 3) **Superior pre-masseter ligament:** This ligament is defined by a line extending from the upper tragus to the lateral canthus.
- 4) **Zygomatic ligament:** A line is drawn from the upper tragus to the midpoint of the zygomatic body, outlining this ligament.



**Figure 12:** Skin Undermining-Temporal Area. Stay exactly under skin hair follicles, preserve subcutaneous tissue, in order to keep a thick SMAS.



**Figure 13:** Skin Undermining-Cheek. Preserve as much as you can subcutaneous tissue in order to keep a thick SMAS and preventing SMAS tears during elevation.

### **Bizrah modified extended SMAS incision from temporal region to inferior neck**

The Bizrah-modified extended SMAS incision is performed as follows:

- 1) **Temporal SMAS incision:** A line is drawn one finger's width anterior to and parallel with the planned skin incision. The incision is made, extending to just one finger above the auricle, then curving anteriorly and inferiorly towards the zygomatic arch. The incision is continued to connect with the cheek SMAS Figure 16.
- 2) **Cheek SMAS incision:** The incision is continued from the lower temporal SMAS incision at the zygomatic arch,



**Figure 14:** Skin Undermining-Neck. Extremely nice, dry and clear field, because we used tumescent fluid.

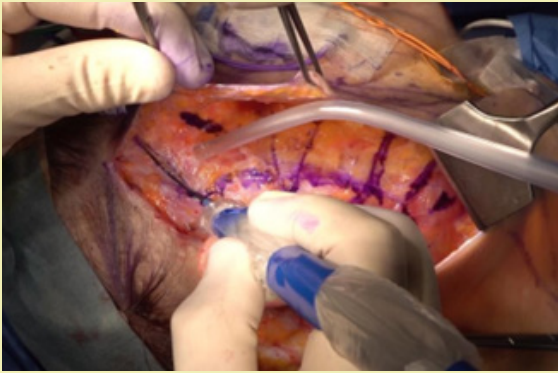


**Figure 15:** Outlining Pre-Masseter and Zygomatic Ligaments (see texts).

extending one finger anterior to the preauricular incision. It then descends halfway between the angle of the mandible and the ear lobule, slightly curving posteriorly to reach the anterior border of the sternocleidomastoid muscle Figure 17.

- 3) **Neck deep SMAS incision:** The cheek SMAS incision continues inferiorly, extending along the anterior border of the sternocleidomastoid muscle. The incision proceeds downward along the anterior border of the sternocleidomastoid muscle for 8-10 cm, stopping one finger above the clavicle. The incision is typically made using a radiofrequency knife or surgical scissors Figure 18.

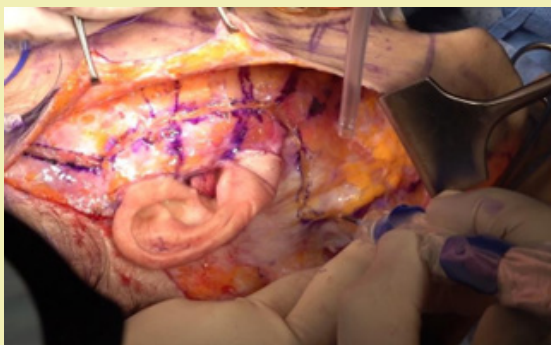




**Figure 16:** Temporal SMAS Incision, using radio frequency knife. The incision is made one finger anterior to the skin incision.



**Figure 17:** Cheek SMAS Incision, using radio frequency knife. The incision is made one finger anterior to the skin incision

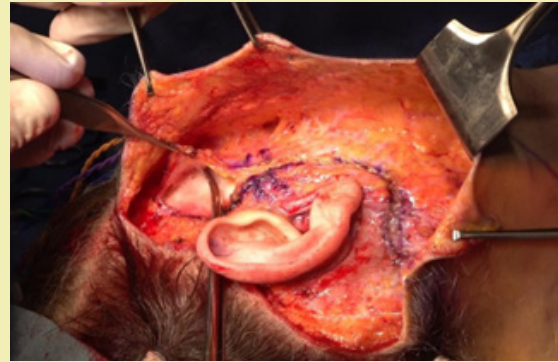


**Figure 18:** Neck Deep SMAS Incision, using radio frequency knife. The is extended along the anterior boarder of SMM for 8-10cm down to just above the clavicle. The temporal, preauricular and neck incisions are made in continuity as one incision in order to elevate the temporal, cheek and neck SMAS flap in full

### Temporal SMAS elevation

#### Incision and elevation

An incision is made along this marked temporal line using either a surgical knife or radiofrequency knife. The superficial temporal fascia is then carefully elevated, starting 8 cm above the auricle and following the incision path down to the zygomatic arch and anteriorly. Elevation is halted two finger-widths lateral to the eyebrow to prevent injury to the frontal branch of the facial nerve, avoiding the "dangerous temporal zone" Figure 19.

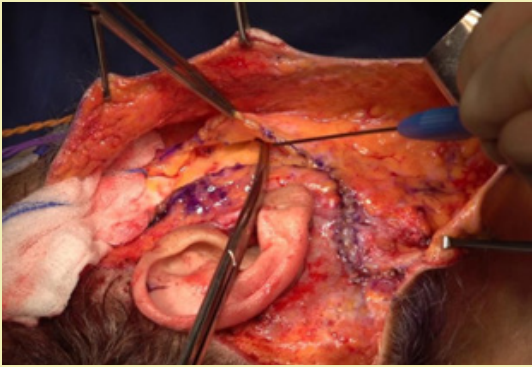


**Figure 19:** Temporal SMAS Elevation. Superficial temporal fascia is carefully elevated, because it is very thin and easy to tear. Deep temporal Fascia is kept intact

### Cheek deep plane SMAS and division of pre-masseter ligaments

- 1) **SMAS elevation:** The SMAS is elevated gently, ensuring not to penetrate the parotid sheath. Dissection proceeds anteriorly, limited to 4-5 cm within the cheek, while avoiding the dangerous zones near the mandibular margin (as previously described). The dissection should not extend beyond the anterior border of the masseter muscle. A reference line is marked from the lateral canthus, running posteriorly and inferiorly to a point 1.5 cm above and posterior to the angle of the mandible. SMAS elevation should not extend more than 2-3 cm anterior to this line, as the buccal branch of the facial nerve becomes increasingly superficial. After this, the procedure progresses to outline and enter the pre-masseter spaces Figure 20.
- 2) **Inferior pre-masseter space:** Blunt dissection is used to enter this space, followed by the use of Trepsat dissecting scissors and the index finger for further blunt dissection anteriorly Figure 21.
- 3) **Middle pre-masseter space:** The same approach is used to enter the midline pre-masseter space, employing blunt dissection initially, followed by Trepsat scissors and the index finger for more precise dissection anteriorly Figure 22.
- 4) **Superior pre-masseter space:** Blunt dissection is performed to enter the superior pre-masseter space, again utilizing Trepsat scissors and the index finger for continued dissection Figure 23.
- 5) **Zygomatic space:** Dissection enters the zygomatic pre-masseter space with blunt dissection, followed by the use of Trepsat scissors and the index finger to continue dissection anteriorly. This continues until the body of the zygoma is reached, allowing visualization of the major zygomatic muscle. The zygomatic nerve runs 1cm lateral to the muscle Figure 24.

- 6) **Retaining ligaments:** The inferior, middle, and superior pre-masseter ligaments, as well as the zygomatic ligament, are identified, visualized, and divided near the roof of the SMAS flap, all while maintaining continuous facial nerve monitoring Figure 25.
- 7) **Completion of dissection:** With all the pre-masseter spaces entered and retaining ligaments divided, the SMAS flap can now be freely lifted.
- 8) **Resulting SMAS flap:** A large, mobile SMAS flap pocket is successfully created, facilitating an adequate and effective SMAS lift.<sup>18-22</sup>



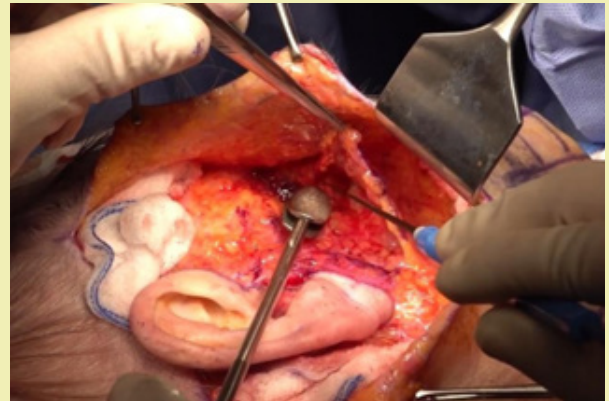
**Figure 20:** Cheek SMAS Elevation. Nice thick cheek SMAS is elevated four cm anteriorly. Do not cross the anterior borders of the masseter to avoid buccal nerve injuries



**Figure 21:** Entering Inferior Pre-Masseter Space. Observe the inferior buccal branch of facial nerve



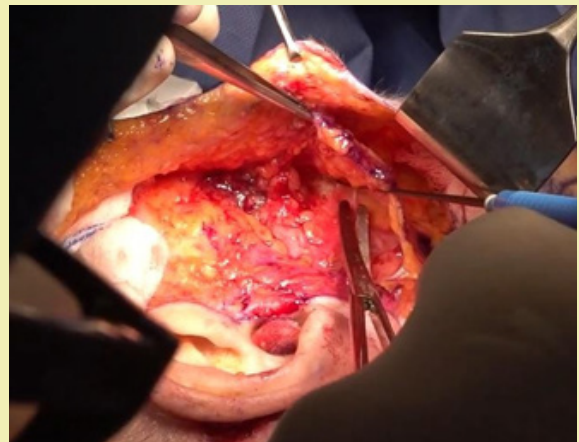
**Figure 22:** Entering Middle Pre-Masseter Space. Observe the superior buccal branch



**Figure 23:** Entering Superior Pre-Masseter Space. Observe zygomatic nerve, Superior pre masseter space and Zygomatic space are usually overlapping



**Figure 24:** Entering Zygomatic Space. Observe Zygomatic major muscle, zygomatic nerve is one cm lateral



**Figure 25:** Dividing retaining Ligaments. Using facial nerve stimulation. Because the buccal branches run very close to the ligaments

#### Lower neck SMAS

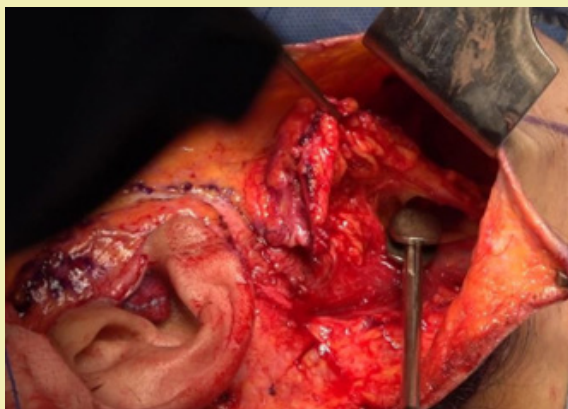
- 1) **SMAS elevation:** The SMAS is elevated in a controlled manner, maintaining continuity with the cheek SMAS, extending two finger-widths below the mandibular margin, and proceeding anteriorly towards the midline and inferiorly for approximately 8-10 cm Figure 26.



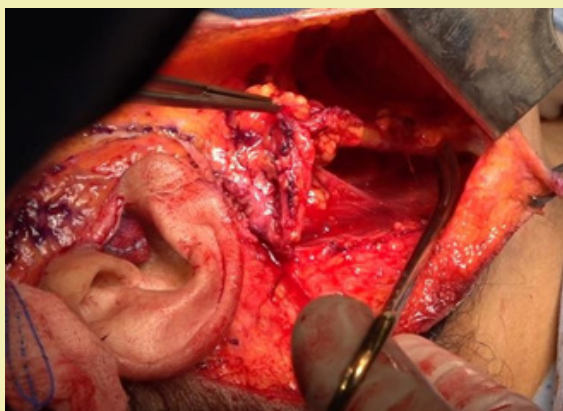
2) **Creation of platysma flap:** Following the above steps, a thick platysma flap is obtained, extending from the anterior border of the sternocleidomastoid muscle towards the midline, and inferiorly for about 8-10 cm in the neck Figure 26.

3) **Division of the inferior border:** The inferior border of the flap is carefully divided towards the midline to achieve optimal tension and lifting of the flap, thereby creating a well-defined mentocervical angle Figure 27.<sup>23-26</sup>

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**Figure 26:** Lower Neck deep SMAS Elevation. Extremely nice thick Platysma SMAS is elevated, from one finger below the jawline down to just above clavicle along sternocleidomastoid muscle and anteriorly to the midline



**Figure 27:** Division of the Inferior boarder of the Platysma neck SMAS in order to obtain the best lift of the submental and neck SMAS

#### Imbrication suture

Imbrication sutures are placed using 4-5 2/0 Ethibond sutures, typically in a buried fashion, to secure the flap and maintain its position. The sutures run in an organized manner from the temporal region down to the full neck Platysma SMAS. Almost 15-18 sutures are needed to cover such extended vertical SMAS suture line Figures 28,29.

#### Smasectomy

At this stage, any excess platysma in the neck, aponeurotic SMAS in the cheek, and surplus superficial temporal fascia are carefully excised and removed. This step is crucial to prevent the

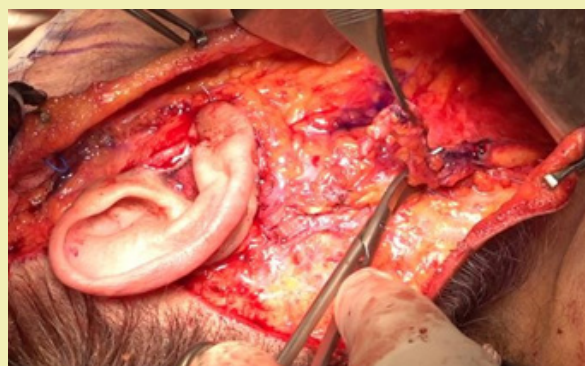
accumulation of bulky tissue beneath the skin, ensuring a smooth and refined contour Figure 30.



**Figure 28:** Imbrication Sutures are applied now in a buried manner all the way from temporal, cheek to the neck deep SMAS flap



**Figure 29:** Imbrication Sutures running in the deep neck Platysma SMAS. Almost 15-18 imbrication sutures are applied from temporal area to the lower neck



**Figure 30:** SMASectomy, excess SMAS of the temporal, cheek and neck area is excised to prevent the accumulation of bulky tissue beneath the skin, ensuring smooth and refined contour

#### Plication sutures

Continuous plication sutures are placed using 2/0 Ethibond or 2/0 Vicryl. The suturing begins at the apex of the incision in the temporal area and proceeds inferiorly along the cheek suture line. The sutures are then extended inferiorly along the neck SMAS, continuing to the lower endpoint of the SMAS incision in the neck. This technique ensures proper tension and support for the lifted tissues Figures 31,32.





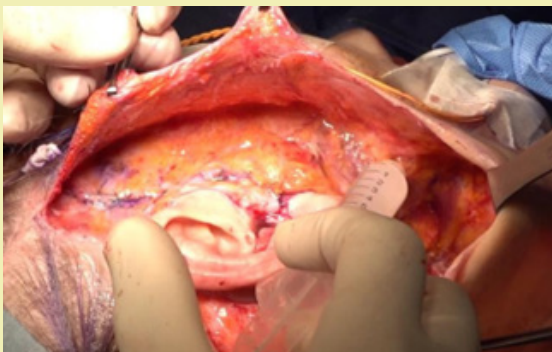
**Figure 31:** Continuous plication sutures are placed using 2/0 Ethibond or 2/0 Vicryl. The suturing begins at the apex of the incision in the temporal area, proceeds inferiorly along the imbrication suture line, and down along the neck SMAS suture line



**Figure 32:** Now we have obtained a very nice extended suture line of temporal area, to cheek, to the lower neck. The line is 18 to 22 cm in length. Imbrication sutures supported by additional plication line. In order to achieve the best possible SMAS lift

### Surgical field finalization

The entire surgical field is thoroughly cleaned with an antibiotic and Tranexamic acid wash. Tranexamic acid is useful to reduce bleeding and haematoma formation. Any excess fat, bulky tissue, or dog ears are carefully excised to achieve a smooth, refined contour Figure 33.



**Figure 33:** Antibiotic Wash and Tranexamic acid for the reduction of bleeding.

### Drain placement and monitoring

Bilateral drains are inserted and monitored for negative pressure every hour to prevent fluid accumulation and ensure proper healing Figure 34.



**Figure 34:** Drain Insertion. We avoid the spider sutures in the cheek and temporal area in order to avoid any catching or stretching of the frontal and buccal branches of the facial nerve. Spider sutures may safely used in the Neck

### Flap securing and skin closure

The face is carefully assessed for smoothness and symmetry. The flap is initially secured using a stapler at two key points: first, at the postauricular junction between the scalp hairline and non-hair-bearing postauricular skin, and second, just above the helix. Excess skin is tailored and trimmed appropriately, ensuring no tension to avoid complications such as skin necrosis, wound dehiscence, or unwanted scarring. A stapler is used for hair-bearing skin, while subcutaneous or interrupted 5/0 Prolene sutures are employed for non-hair-bearing skin in the preauricular area. Additional pullout sutures are placed between the skin and SMAS, approximately 2 cm anterior to the skin incision, to minimize tension on the skin flaps. These sutures are typically removed on postoperative day 12 Figures 35-38.



**Figure 35:** Flap tailoring and Key Sutures. Avoid any excess skin tension, to avoid unwanted wide scars



**Figure 36:** Flap tailoring and Key Sutures. Avoid any excess skin tension. Stay 2mm below ear lobule to avoid Pixie ear.



**Figure 37:** Flap tailoring and Key Sutures. Avoid any excess skin tension, in order to avoid dehiscence and keloid formation



**Figure 38:** Skin closure meticulously performed. Few pre auricular and post auricular pull-out SMAS to skin sutures are applied in order to reduce the tension on the skin flap and avoid dehiscence of the skin wound

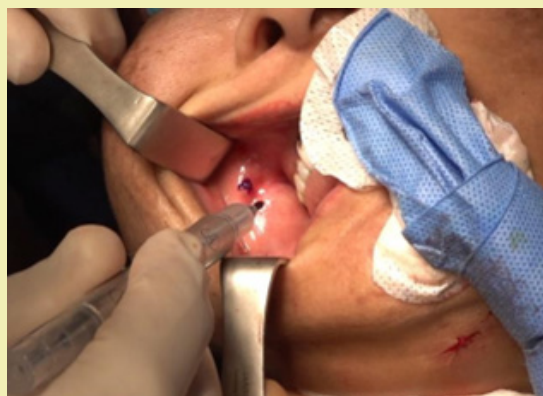
### Postoperative dressings and medications

Steri-strips, Sofratulle, and gentle pressure dressings are applied to the surgical sites. Patients are administered appropriate medications for nausea, pain, swelling, and antibiotics. Drains are removed, and dressings are changed the following morning.

### Buccal fat removal (When indicated)

If buccal fat removal is part of the procedure, it is performed as follows

- 1) **Intraoral approach:** Local anesthesia is injected into the buccal area.
- 2) **Identification:** The orifice of the parotid duct is identified Figure 39.
- 3) **Incision:** An incision is made 2 cm below the duct orifice, extending posteriorly. The incision is performed using a radiofrequency knife through the mucosa and buccinator muscle fibers Figure 40.
- 4) **Blunt dissection:** Blunt dissector scissors are used to dissect through the buccinator fibers, working posteriorly and superiorly, until the fat pad is visibly protruding Figure 41,42.
- 5) **Fat removal:** Approximately 50% of the buccal fat is removed, after which the fat is clamped, the fat is excised, and any bleeding is cauterized Figure 43
- 6) **Closure:** The incision is closed using 5/0 Vicryl sutures Figure 44



**Figure 39:** Identifying Orifice of the parotid duct



**Figure 40:** Incision 2 cm below the duct orifice





**Figure 41:** Separate the buccinator fibers, then dissect posteriorly and superiorly until the fat pad is visibly protruding



**Figure 42:** Fat pad is visibly protruding



**Figure 43:** Clamping, removing 50% of the fat. Cauterize the fat to avoid bleeding



**Figure 44:** Closure using 5/0 Vicryl

## Important Considerations

1. **Facial nerve mapping:** Always mark the branches of the facial nerve on the skin, taking into account anatomical variations. Ensure you remain at least one finger's width away from the nerve's typical course to minimize the risk of injury.
2. **Identification of prohibited areas:** Mark the deep SMAS regions where dissection should be avoided to prevent damage to critical structures. Position the skin incision 2mm below the ear lobule, rather than directly at the lobule itself. Preserving this 2mm of skin prevents tension and stretching of the ear lobule, which can often cause patient dissatisfaction due to alterations in the shape of the ear.
3. **Accurate skin flap elevation:** Elevate the skin flaps in the correct plane, avoiding the creation of excessively thick flaps. Retain sufficient subcutaneous tissue over the SMAS layer to prevent tears during the SMAS elevation.
4. **Retaining ligament division:** Carefully divide the retaining ligaments during skin flap elevation to prevent dimpling, stretching, or folding of the skin. This ensures smooth lifting, contouring and proper flap tailoring.
5. **Facial nerve monitoring:** Use facial nerve stimulation when dividing retaining ligaments, especially in areas close to the buccal branches. These branches run near the pre-masseter retaining ligaments, and thorough division of the ligaments is essential for free SMAS mobilization.
6. **Tailoring the flaps:** When correcting dog ears, position the correction close to the ear to minimize the risk of hair loss, especially when these are located at the far ends of the incision.
7. **Skin closure:** Use subcuticular sutures in the preauricular area to minimize scarring, particularly in non-Caucasian patients, who may be more prone to visible scars.
8. **SMAS to skin sutures:** Secure the skin flaps with a few SMAS-to-skin pull-up sutures to reduce flap tension and minimize the risk of wound dehiscence. These sutures should be placed about 3 cm anterior or inferior to the incision and removed at day 12.
9. **Drain use and suture recommendations:** Always use drains to prevent fluid accumulation. Avoid spider sutures on the face to prevent inadvertent damage to the buccal or frontal branches of the facial nerve, although spider sutures may be used in the neck.
10. **Dressing and garments:** Apply gentle dressings and garments to minimize swelling and support the surgical site during recovery.

**11. Postoperative Care:** After extensive procedures, keep the patient hospitalized for 48 hours. Administer IV antibiotics, steroids, and pain relief to promote optimal healing.<sup>27-30</sup>

## Complications

This article primarily focuses on the extended vertical deep-plane face and neck lift technique (Bizrah modification). However, complications associated with face and neck lifting are numerous and complex, deserving of a detailed discussion is out of the scope of this article. However common complications encountered in face and neck lift procedures include:

Hematoma, Seroma, Facial nerve branch injuries, Infections, Skin necrosis, Platysma banding, Skin laxity, Contour deformities, Pixie ear, Alopecia, Wound dehiscence and Keloid scars.

The technique described in this article integrates several key strategies designed to minimize the risk of these complications. These include preoperative marking of the facial nerve branches and potential danger zones, as well as the use of an extended vertical wide deep SMAS technique. Additionally, limiting the deep SMAS elevation to the anterior border of the masseter muscle to avoid nerve injuries. Also maintaining a 2mm skin margin below the ear lobule to avoid Pixie ear.

Other measures include facial nerve monitoring, tumescent fluid preparation, and the use of drains, spider sutures, antibiotic washes, and tranexamic acid. Tailoring the flaps without tension and employing meticulous skin closure techniques, along with pullout SMAS skin sutures, significantly reduce the risk of wound dehiscence, scarring, and other postoperative complications.

Furthermore, it is crucial to maintain a horizontal postauricular occipital incision rather than following the hairline, as this helps avoid a narrow flap and reduces the risk of flap necrosis. Proper patient selection is also essential, with heightened precautions for patients with hypertension, diabetes, a history of heavy smoking, or those on anticoagulants or blood thinners.

By adhering to these protocols, complications can be substantially reduced, leading to better surgical outcomes and enhanced patient satisfaction.

## Discussion

The Bizrah extended SMAS technique aims to create a continuous, extensive SMAS flap spanning from the temporal region to the cheek and lower neck, extending up to 22 cm. This approach offers superior, long-lasting results by tightening the temporal area, lifting the eyebrows, enhancing upper and mid cheek volume, softening nasolabial folds and marionette lines, improving jawline contouring, addressing sagging, double chin, and neck ptosis, and defining the mento-cervical angle.

In contrast to the traditional deep SMAS technique, which typically targets the midface and upper neck with an 8 cm flap, the Bizrah modification extends to 18- 22 cm, providing a more substantial lift and more durable outcomes. This extended flap length ensures a stronger result. Additionally, the Bizrah technique utilizes 15-18 imbrication sutures, compared to the 5-8 used in traditional SMAS, and incorporates an additional line of plication sutures over 18-22 cm to further enhance the lift and improve tension distribution.

Although there has been some debate regarding how far anteriorly to extend the SMAS in the cheek area, many surgeons now avoid extending it to the nasolabial fold, corner of the mouth or marionette lines to minimize the risk of injury to the buccal and zygomatic branches of the facial nerve. Stopping at the anterior border of the masseter muscle provides sufficient lift while reducing the risk of nerve damage and still achieves optimal results. The long, wide, broader extended SMAS flap compensates for not extending further anteriorly, even delivering more superior jawline and neck contouring, which is often a primary concern for patients.

When combined with submental liposuction, the extended SMAS technique significantly reduces the need for midline platysmaplasty, effectively eliminating the undesirable submental scar, particularly in non-Caucasian or darker-skinned patients.

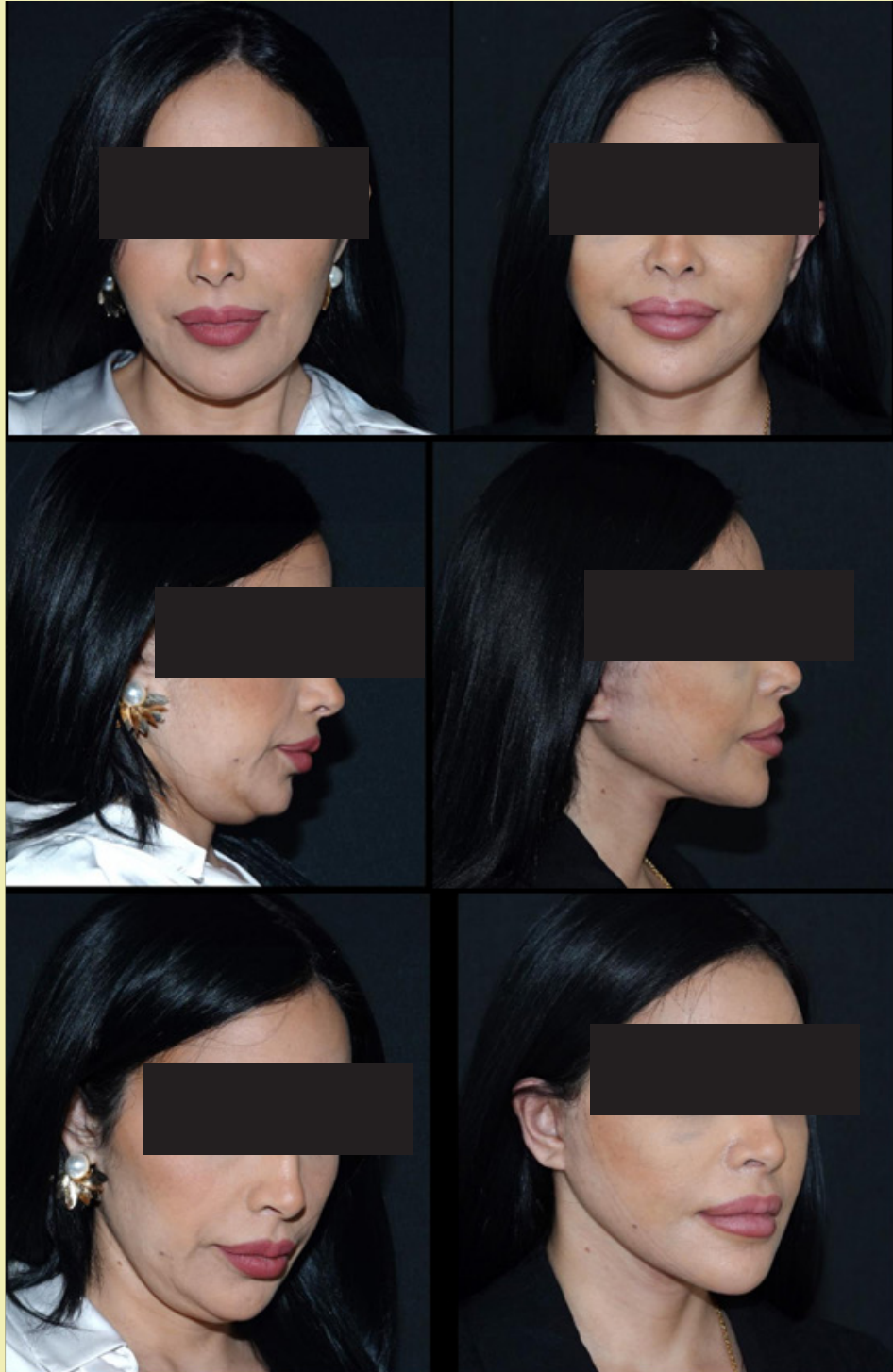
Patients who experience the most favourable outcomes from rhytidectomy are typically those with fair, thin skin, good overall health, minimal subcutaneous adipose tissue, and moderate skin laxity. Conversely, individuals with thicker, darker skin, reduced skin laxity, and greater amounts of subcutaneous fat often achieve less optimal results.

## Conclusion

The Bizrah modification of the vertically extended SMAS elevation technique offers a significant and comprehensive lift to the upper, mid, and lower face, as well as the neck, providing enhanced control and precision in tissue repositioning. Bizrah's modified approach is particularly effective in refining the mento-cervical angle, improving jawline contouring, and lifting both the upper and lower cheeks. Additionally, it elevates the temporal region and laterally lifts the eyebrows, resulting in a youthful, natural, and harmonious facial appearance.

The expanded dissection of the SMAS layer allows for a more natural and durable lift, especially in patients with moderate to advanced facial aging. This technique reduces tension on the skin, minimizes the risk of complications, and ensures optimal, long-term outcomes.





49-year-old female with early signs of facial aging, moderate cheek ptosis, jowling, deep nasolabial fold, double chin and ptosis of the neck. Patient underwent the Bizrah modification extended vertical deep SMAS (temporal, Cheek and Neck).

Post-Operative photos show an excellent jawline contouring, more cheek and neck definition and lifting, softened nasolabial folds, double chin correction and well defined cervico-mental angle



67-year-old female shows significant actinic changes, cheek and neck rhytids, deep nasolabial and marionette line creases, marked jowling, platysma banding and neck skin laxity. The patient underwent transconjunctival lower blepharoplasty and the Bizrah modification extended vertical deep SMAS technique (Temporal, Cheek and Neck). The Post operative photos show marked improvement in the Face and Neck rhytids, excellent jawline contouring, soften nasolabial and marionette folds and a very well defined cervico-mental angle.





63-year-old female with deep nasolabial and marionette folds, cheek and neck deep rhytids, jowling, obvious laxity on the cheek and neck skin and submental laxity of platysma folds. Patient underwent Bi lateral upper and lower blepharoplasty, Tip Plasty and the Bizrah modification vertical Extended deep plane face and Neck lift (Temporal, cheek and Neck). Post operative photos shows an excellent outcome, she really looks many years younger following the correction of the skin laxity in the face and neck.

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## Conflict of Interest

Regarding the publication of this article, the author declares that he has no conflict of interest.

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