



Mesh Induced Permanent Surgical Facelift – Modification of Surgical Face-Lifting

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Abstract

Background: *The human body's largest and most noticeable organ, the skin, ages over time, causing physical changes like the development of wrinkles or rhytides, which are creases in the skin. Skin wrinkles often develop as a result of ageing processes like glycation, and these changes have a substantial psychological impact on an individual's health, frequently influencing their social relationships, perceptions of their appearance, and overall well-being. According to certain research, having a youthful appearance is associated with higher levels of self-esteem, better social interactions, and social acceptance.*

As a result, it is not surprising that there is a growing consensus in favor of postponing or masking the signs of aging on the skin.

Material and Method: *In this case report, we have investigated the effect of mesh induced surgical facelift for permanent face lifting in female patients with challenging cases of facial ptosis and wrinkles.*

Results: *Magnificent improvements of the crow's feet, nasolabial fold, and mid-face and lower face ptosis were observed following the procedure and no adverse effects were noticed.*

Conclusion: *In conclusion, this innovative technique combining non absorbable mesh with small incision rhytidectomy is safe and effective for facial rejuvenation with appropriate patient selection.*

Introduction

The skin is the largest and most visible organ of the human body, it undergoes a process of ageing leading to physical changes such as the formation of wrinkles or rhytides which are creases in the skin (1). Skin wrinkles typically appear as a result of ageing processes such as glycation and these changes have a significant psychological impact on the health of an individual often affecting their interpersonal interactions, body image and general overview of health (2). In some studies, it has been found that a youthful appearance is linked to increased levels of self-esteem, improved social relations and social acceptance (2).

Therefore, it comes as no surprise that there has been a growing consensus toward delaying or concealing the signs of ageing on the skin. In modern times, one of the most common procedures to treat the effects of ageing on skin is a facelift, also referred to as rhytidectomy, which describes the surgical removal of wrinkles to give a more youthful appearance to a patient's face.

History of the Facelift

The facelift procedure has developed considerably in the last 100 years since Eugen Holländer's first attempt at a proto-facelift in 1901; where he was asked to lift the cheeks and corners of the mouth of a Polish aristocrat. To deliver this request he made an incision in the ear area, removed an elliptical piece of skin and tightened the skin, but made no attempt at lifting the structures of the mouth (3).

The Clinicians of the 20th century realised that to progress from the first attempt by Holländer to the actual facelift, theoretical knowledge and surgical expertise would need to be developed and so in 1907, the first textbook on facial cosmetic surgery titled: "The Correction of Featural Imperfection," was written by Charles Miller of Chicago (4).

It would take another 8 years after the publication of this textbook for the first facelift to be performed by Dr Erich Lexer in 1915- one of the founding fathers of plastic surgery- an intervention widely considered to be the first proper lift procedure, which the skin of the face was lifted from the underlying fat, redraped, and then pulled tighter (3). His procedure was regarded as the prominent type of facelift for the next 60 years and its outcomes would often be described as achieving a "wind tunnel look," where the facial skin seems particularly tight and taut.

By the 1960s, there was a future refinement of the procedure that meant fat contouring along the jawline and under the chin became standard procedure. In 1968, Todd Skogg introduced the concept of subfacial dissection, which described the suspension of a deeper layer rather than relying on skin

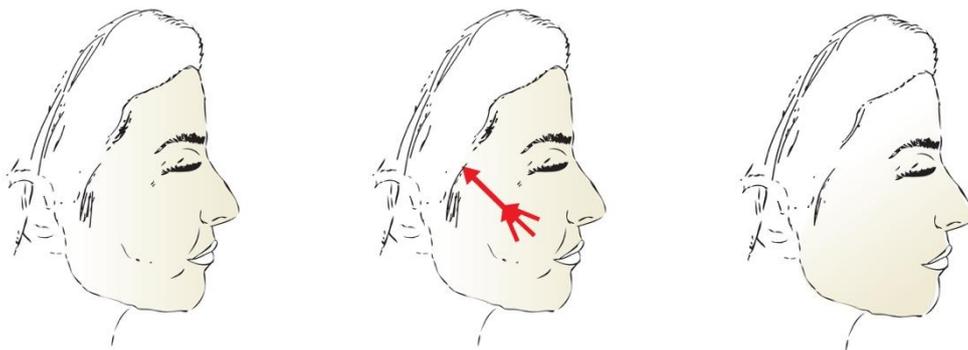
tension to achieve a facelift. In 1974, Skogg published his proposed technique of subfacial dissection of the platysma without detaching the skin in a posterior direction.

Two years later in 1976, Mitz and Peyronnie published their findings describing the SMAS (superficial muscular aponeurotic system) facelift describing the SMAS facelift as involving cutting deeper than just the skin and immediately underlying tissue. The SMAS would also adjust and suture much deeper tissues for better and longer-lasting results (5).

Then in the 1980s, and early 1990s, based on Skoog's technique, Dr Sam Hamra introduced the deep plane facelift followed by a composite facelift to improve the periorbital and nasolabial regions (6). Owsley further improved on this technique by describing the malar fat pad dissection and suspension to improve the nasolabial crease (7) and Ramirez introduced the subperiosteal rhytidectomy technique to improve the cheek, forehead, jowls, lateral canthus, and eyebrows (8).

Case Report

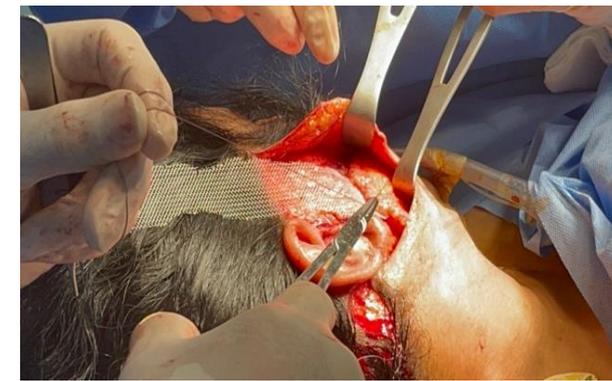
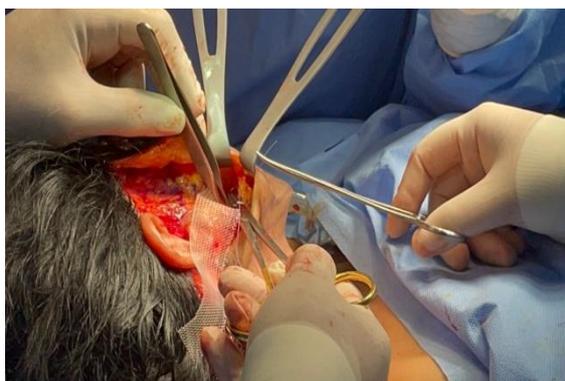
A 50-year-old female patient presented with presented for a cosmetic consultation. She had skin laxity, mid-face and mandibular jowl ptosis, static crow's-feet wrinkles, and deepening nasolabial fold. The patient had not received any treatment before. She underwent clinical assessment and routine preoperative examinations. we recommended this innovative technique.



Surgical procedure

The surgical procedure was performed under general anesthesia. After proper disinfection, according to the markings, with a small needle knife a vertical retroauricular incision is made behind the tragus and then continues with subcutaneous elevation in the cheek, usually connecting to the supraplatysmal elevation performed in the neck and continued posteriorly behind the ear, until there is adequate

movement to effect correction of the neck and jawline at which point the SMAS is secured to the posterior zygomatic and mastoid periosteums, after under skin preparation a suspension of medical mesh is placed in three directions (fig.) to provide pyramidal shaped pull and proper fixation.



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Results

Magnificent improvements of the crow's feet, nasolabial fold, and mid-face and lower face ptosis were observed following the procedure and no adverse effects were noticed.



Conclusion

In conclusion, this innovative technique combining non absorbable mesh with small incision rhytidectomy is safe and effective for facial rejuvenation and active lifting with increased longevity of treatment result with appropriate patient selection.

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