



Aesthetica in Practice: The Flick Lift in Assisting Closure of Large Cutaneous Excisional Defects on Face

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Abstract

Aesthetica is a term being used to describe the aesthetic reconstruction of congenital or acquired deformity. Plastic Surgeons seek to deliver function, form and cosmesis during any reconstruction but Cosmetic Surgery techniques commonly used in the private sector have evolved far in advance of what is delivered in state funded hospitals, meaning that there is room to improve aesthetic outcomes in select patients.

Extensive facial solar damage and malignancy is commonly seen in the elderly and if the surgery option is to be taken then wide excisional defects can create a challenge for the reconstructive surgeon. Primary closure may be impossible, local flaps may be under undue tension and sutures may 'cheese-wire' the tissues. Skin grafts may succeed at the expense of poor cosmesis and delayed healing at donor site.

The Superficial Musculo-Aponeurotic system (SMAS) is routinely used to relocate and provide fixation of skin and superficial fat during face-lifting. This principle can be applied to take the tension off skin closures particularly in the elderly patient, preferentially under local anaesthetic, with very acceptable cosmetic outcomes.

We have adapted the minimally traumatic, low risk, flicklift technique used by Cosmetic Surgeons to assist in tension free skin closure of large face excisional skin defects following skin cancer resection.

Keywords: Facelift; Flicklift; Skin cancer; Cosmetic surgery; Reconstruction face

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Introduction

Aesthetica is a new and modern terminology that describes the application of cosmetic surgery techniques to improve the appearance of congenital or acquired soft tissue defects [1,2]. Aesthetica is performed at sites other than face of course, with examples in breast cancer reconstruction with use of cosmetic implants, contralateral mastopexy or breast reduction and the modified Brazilian Abdominoplasty for 'no drains' massive weight loss (MWL) excisional surgery. Using this definition, Aesthetica has by definition been frequently described in the literature in facial reconstructive surgery and is indeed one of the reasons Plastic Surgery developed as a specialty, following the work of McIndoe and others reconstructing major defects of face almost a century ago. Facelifting has gone through decades of change but the pioneers have contributed greatly to our understanding of anatomical planes [3,4]. Facelift for vascular malformation is but one example of aesthetica [5]. Other authors including Klaassen and Pennington describe in clarity the use of local flaps in reconstructive surgery to optimize appearance [6,7]. Local anaesthetic surgery also has clear advantages in the elderly.

The flicklift is an adaptation of multiple techniques that combines benefits of the high SMAS facelift, miniface lift with minimal undermining of skin to engage tissues and close deep space during skin advancement and closure [8], and the Levick 'One Stitch Hitch' (Figures 1-4). The latter is a 30 min procedure under local anaesthetic that involves a hemi-elliptical excision of skin from just beneath the sideburn hairline in women. The dissection is onto superficial temporal fascia and a 3/0 Nylon 'figure of 8' suture plicates the tissues. Amazingly it draws the tissues upwards and backwards but as a criticism it leaves an anterior dog-ear in some patients—similar to that sometimes seen after MACS lift [9]. To avoid this complication and attempt to provide more longevity to the result, the scar is extended into the pre-auricular 'scarless facelift' crease perhaps extending below



Figure 1: One Stitch Hitch.



Figure 2: One Stitch Hitch.



Figure 3: One Stitch Hitch.

the tragus to just behind the lobule of the ear as required. An inverted L- incision is made in the SMAS at the level of the zygoma and a small flap of SMAS is elevated. A 3/0 Ethibond (Ethicon) suture is used to carry the SMAS flap up and over the zygoma and suture on masse to the deep temporal fascia. The purchase is strong and gives immediate improvement to jowels and midface. The effect, like with all facelift techniques, depends on the relative relaxation of all tissues, including skin, as post-operative swelling subsides and in relationship to the relative slide and re-distribution of fat within the superficial and deep facial fat compartments as the face is lifted [10]. The attraction of

less extensive dissection in the flicklift compared to more extensive facelift is related to speed and ease of surgery and the closure of all spaces which reduces risk of haematoma. These are also the principles of mid-face composite lifting as espoused many times by Hamra over the past 20 years. It is always preferred to do these procedures under local anaesthetic and as day surgery [11,12].

Actinic skin damage and multifocal malignancy can lead to significant deformity after excisional surgery. The conventional reconstructive ladder is:- (a) direct closure, (b) local flap closure, (c) skin graft (d) regional flap closure, or in massive defects perhaps requiring structural reconstruction (d) free flap closure. In cases where cosmesis is important it is aesthetically correct to use local tissues wherever possible and in elderly patients with thin skin there can be significant morbidity at flap or skin graft donor site to consider. Local flaps are therefore the next best option wherever primary closure is impossible and retaining the alignment of natural creases and avoidance of dog ears is important in cosmetic terms when doing these procedures. Tissue Expanders can loosen adjacent tissues for tension free closure but they are expensive in both primary cost of expander and the duration to complete expansion before secondary surgery so they have limited application in the face. The principle of skin closure without tension is important in the healing process and the end cosmetic result. We have adapted this principle by using SMAS as a flap to elevate and approximate the composite deep tissues on the face and provide tension free skin closure of significant soft tissue defects following extensive excisions for severe actinic change and multifocal carcinomas in two cases.

In 1976, Mitz and Peyronie [13] described the SMAS layer and this was further defined by Mendelson in 2001 [14]. Many other senior authors have contributed to our understanding of facelift surgery [15]. Following the now famous twins study by Alpert and Hamra in 2009 it is clear that there is no single operative technique that provides greater or longer lasting results in facial rejuvenation [16]. In fact, many Surgeons have moved away from performing high risk, deeper plane lifts because they have no longer lasting outcomes, particularly to the neck [17] and they carry significant short and longer term morbidity. Furthermore skin blood supply is improved by retaining the skin attachment to SMAS as during a minimal undermining, composite SMAS lift, so reducing risk of poor healing and dead space haematoma or infection [18]. Mini face lifting and revolumising with fat or hyaluronic acid, perhaps in conjunction with skin resurfacing are the safer options with low risk and high reward surgery.

Pennington has previously described the use of 'skin only facelift' as an advancement flap for preauricular defects. In the majority of smaller skin defect reconstructions, primary closure or local flap reconstructions are perfectly satisfactory, but to avoid grafting onto larger wounds, deep tissue suspension is an adjunct to closure. In this report we utilized SMAS, using the flicklift procedure described by Frame and Levick in 2012 [10] and a 'figure of 8' suture, to advance skin with superficial fat and reconstruct significant wide excisional defects on face in two elderly women with basal cell and squamous cell carcinomata.

Case Presentation

Case 1

An 81 year old lady (CS) with a history of previous facial basal cell carcinomas presents with infiltrating basal cell carcinomata of



Figure 4: One Stitch Hitch.

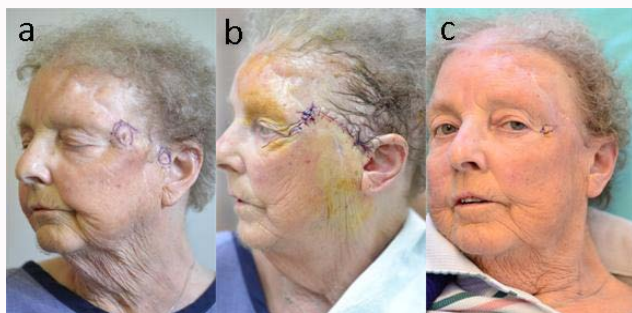


Figure 5a-c: A small residual dog-ear persisted at the left can thus and this was revised under local anaesthetic at 6 weeks.

her left temple and pre-auricular regions. Under local anaesthetic, a wide excision of the affected skin areas led to a considerable size of soft tissue defect. An anterior, inverted L- shaped SMAS flap was suspended using a 'figure of eight suture' to the deep temporal fascia providing support to enable tension free skin closure. The wounds healed uneventfully and have given a rejuvenated look to the face weeks later. A small residual dog-ear persisted at the left can thus and this was revised under local anaesthetic at 6 weeks (Figure 5A-C).

Case 2

An 89-year-old female veteran tennis player (DDR) presented with severe facial solar damage, Multiple Bowens SCC in-situ skin lesions, within a wide field of dysplastic actinic keratoses (Figure 6A-H). There were very few options other than to consider graft if local flaps could not be used. She has poor quality thin delicate skin (Fitzpatrick 1), prone to cheese-wiring if sutured under tension. A two stage local anaesthetic procedure was decided. Stage 1 was a wide excision of right cheek lesions and repair of significant skin loss using an anterior flicklift approach and inverted L-Shape SMAS flap (Figure 6A-C). The limited SMAS flap (Figure 6E) is raised and with a strong 'figure of 8' suture is lifted and anchored cephalad to deep temporal fascia to take the tension off the advancing lateral cheek flap. Stage 2 was performed two weeks later by a similar wide excision and skin flap repair of left cheek lesions utilizing SMAS deep tension support using the flicklift principles (Figure 6D-F). At four weeks there is an excellent result and an actual improvement of lower lid retraction and less scleral show with good support to the lower eyelid.

Discussion

Facelifting is one of the commonest aesthetic surgery procedures and the majorities are performed by Plastic Surgeons trained to

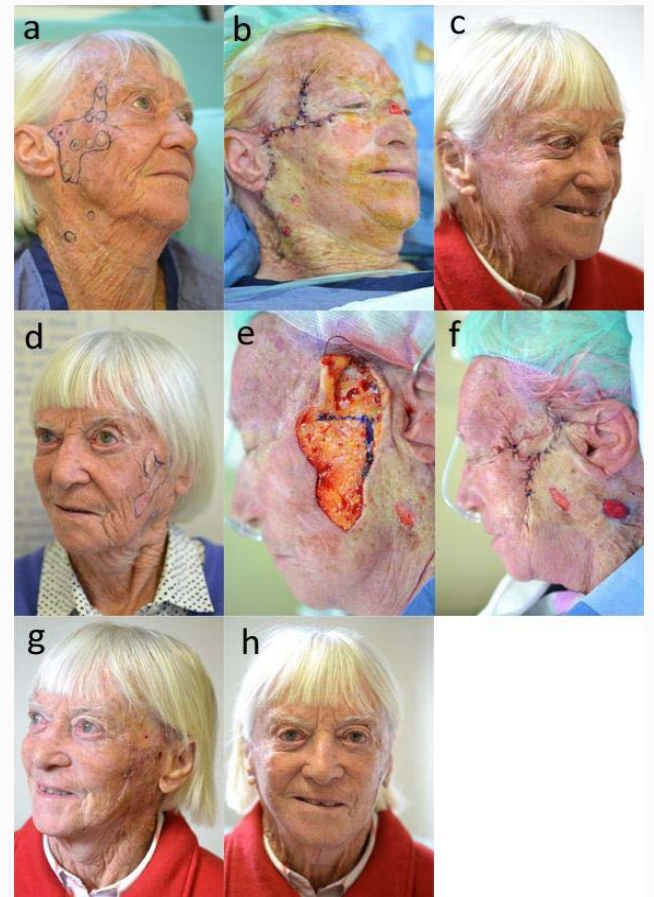


Figure 6a-h: At four weeks there is an excellent result and an actual improvement of lower lid retraction and less scleral show with good support to the lower eyelid.

reconstruct soft tissue defects, but because of financial constraints within most State Training Programmes, trainees no longer have opportunities to see let alone operate on cosmetic surgery patients. Most, younger plastic surgeons therefore are not exposed to some of the modern techniques used in Cosmetic Surgery and this is harmful to patients. Harold Gillies famously stated: *'No man (or woman) can call themselves a plastic surgeon, unless they are adept at both reconstructive and cosmetic surgery.'* Aesthetica is a concept that encapsulates this Gillies principle. It is vitally important to train Plastic Surgeons in all aspects of soft tissue reconstruction including Cosmetic Surgery to give best possible outcomes especially where there is facial disfigurement.

The Anterior Flicklift was originally developed by Frame and Levick for improved rejuvenation of the midface and jawline and is an extension of the 'figure of 8', one year lasting, 'one stitch hitch' that had been performed but unpublished over many years by Levick in Birmingham, UK. The anterior flicklift incision can be extended downwards and behind the ear so that a small preauricular SMAS flap can be transposed posteriorly over the mastoid to elevate the SMAS and fix the position of jawline and anterior neck. This small flap also supports the earlobe shape to prevent 'pixie' deformity. The elevation of soft tissue attached to the SMAS layer is remarkable and there is no need for deep tissue undermining.

For the past five years the first author (MK) used various variants of the facelift flap for repair of cutaneous defects of the temple,

preauricular, postauricular and lateral cheek regions and these are published in his article on *Aesthetica* [7]. To reduce tension in the skin closure a limited SMAS flap can easily be raised after soft tissue excision of tumours down to but not through the SMAS layer. With a strong 'figure of 8' suture the SMAS flap is fixed cephalad so taking the tension off the advancing lateral cheek flap. There may be some temporary asymmetry of the face in the first few weeks but this should resolve completely by four months. In bilateral staged procedures, the asymmetry is less obvious. It was impressive how the lower eyelid laxity was improved. We recommend this technique to provide deep tension support when there is a need for a local flap reconstruction under potential tension in the periauricular, lateral cheek and zygomatic regions in elderly patients with some facial skin laxity, because it is simple, effective and well tolerated under local anaesthetic.

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