

# Cosmetic Surgery for the Aging Face

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## INTRODUCTION

Aging face is a natural process that takes place in the human body. The continuous effect of environment and genetics causes the skin to become lax and wrinkled. Cumulative UV exposure decreases skin collagen content, aggregates elastic fibers, disrupts cutaneous immune surveillance, stimulates melanogenesis and angiogenesis and disorganizes epidermal cell maturation (1). Redistribution of subcutaneous fat and changes in muscle tone also starts appearing with age.

Unfortunately there is no way to stop aging. But with advancement of modern science, cosmetic surgery can wind back the clock.

## MATERIALS & METHODS

Period of study : Oct 2003 to Oct 2007  
Place of Study : Cosmetic Surgery Center Ltd.  
Dhanmondi, Dhaka.  
Number of Patient : Total Patient 345 (Male-111,  
Female-234)  
Number of Procedure : 702, Operative-73  
Non Operative -629

*Materials Methods:* A study was conducted in cosmetic surgery center Ltd. Dhanmodi, Dhaka. The duration of study was four years (from October 2003 to October 2007 each of the patients was assessed and their treatment plan laid out along with the procedure required. The total number of patients was 345 and the number of procedures performed was 702. Nine different procedures were employed for be "anti-aging" treatment. This included 73 (10.4%) operative and 629 (89.6%) non-operative techniques. The operative procedures were 1. Six facelifts,

2. Twenty one Blepharoplasty, 3. Thirty five Liposuctions. The non-operative procedures were 4. Twenty four Thread Facelifts, 5. Forty four filler injections, 6. Three hundred sixty nine Microdermabrasions, 7. Thirty six Botox injections and 8. One hundred fifty six laser treatments.

## TYPE OF PROCEDURE

Name of procedure	Number
<i>Operative</i>	
1) Facelift	6
2) Blepharoplasty	21
3) Liposuction	35
<i>Non-Operative</i>	
4) Thread Facelift	24
5) Filler Injection	44
6) Botox	36
7) Microdermabrasion	369
8) Laser Treatment	156

## Procedure

The procedures employed were as follows :

1. Facelift: this is a major surgical undertaking where preauricular incisions are applied and the facial skin is undermined and raised as a flap. This flap is then pulled back and excess sagging skin excised. Repair is done by 4/0 prolene stitches. Before skin repair, the SMAS layer [which represents the deep fascia in the face] is also tightened by vicryl stitches.
2. Blepharoplasty: This is done for baggy eyes which make a person look old and tired. Here skin crease incision is made below the lower lid margin and excess skin excised. A thin sliver of orbicularis oculi muscle and the excess underlying fat is also removed in this operation.
3. Liposuction: Excess fat on the sides and under the chin can appear with age. This can easily be removed by liposuction-just like removing fat from the

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abdomen or the hip. A small cannula / needle is introduced and the fat is suctioned out from these areas. This can also reduce the sagging effect by removing the offending pocket of fat.

4. Thread Facelift: Correction of facial sagging or ptosis with aptos threads is a minimally invasive alternative that was initially reported by Sulamanidze, et al. in 2000 (2). The threads are comprised of nonabsorbable polypropylene. Very recently absorbable polydioxonone threads have become available for use. The threads have multiple micro hooks on the surface which look like barbed wire. These cause the threads to anchor itself in tissue resulting in the desired lifting effect. The areas to be treated are marked and injected with local anesthesia and the threads are placed in the deep dermis tissue using a 16 gauge or 20 gauge flexible metal cannula as a guide. The cannula is then withdrawn leaving the thread in place. Minimal swelling can be seen post-operatively but it resolves in a day or two

5. Filler injection; Soft tissue augmentation has become a popular means of addressing volume loss and contour defects that result from aging, photo damage, trauma and / or scarification and disease(3). Dozens of filling agents now exist in our armamentarium with varying degrees of durability and viscosity. The fillers are injected in to areas where there is a filling defect. No anesthesia is required and the injection can be given as an office procedure.

#### Dermal fillers (3)

Filler Name	Composition	Duration
Zyderm/Zyplast:	Bovine Collagen +/_glutaraldehyde	3-5m
Cosmoderm/ Cosmoplast:	Human Collagen +/_glutaraldehyde	3-5m
Restylane fineline:	Hyaluronic A small particle size	3-6m
Restylane:	Hyaluronic A medium particle size	4-6m
Perlane:	Hyaluronic A medium particle size	3-9m
Hylaform:	Hyaluronic A small particle	3-6m
Hylaform plus:	Hyaluronic A medium	3-6m
Dermalive:	Acrylic hydrogel 40% Hyaluronic A 60%	Permanent
Artecol :	Polymethylmethacrylate beads in HA	Permanent

#### Subdermal fillers (3)

Filler Name	Composition	Duration
Alloderm	Human cadaveric dermis	12-24m
Advanta	PTFE	Permanent
Radiesse	Ca-hydroxylapatite	4m-5years
Autologous fat, dermis, scar	Harvested from the patient	variable 6m-permanent.

6. Microdermabrasion; Microdermabrasion is a procedure which has been widely used to treat photo damage, acne, scars, open pores and stretch marks. The procedure does not require any kind of anesthesia. It is a form of resurfacing where a suctioning device along with Aluminum oxide crystals is whisked over the skin in a close circuit. One line in the hand piece blows aluminum oxide crystals onto the skin while the other line acts as a vacuum to pull crystals and tissue debris away from the skin.(4). Here the stratum corneum is abraded and when done several times over a period of time, the skin becomes smoother and tighter.

7. Botox Injection: Since the introduction of botulinum toxin type A (BTX-A) for cosmetic use in the early 1990's the popularity of BTX-A injections has grown rapidly. The simplicity of the treatment and its safety along with its efficacy in facial rejuvenation has made it into one of the most commonly performed cosmetic procedure. It acts by blocking neuromuscular transmission by binding to receptor sites on motor nerve terminals and inhibiting acetylcholine release.(5) It can be used for horizontal forehead lines, crow's-feet, glabella, perioral wrinkles, nasolabial folds etc. When injected in to the muscles, responsible for the production of the rhytides, they become inactive and hence the wrinkling effect disappears. There is no residual pain and no local anesthesia is required.

8. Laser rejuvenation: The Nd Yag laser with wave length of 1064nm can be used for rejuvenation. The thermal energy produced by the laser beam causes remodeling of the collagen in the dermis. This reduces the laxity of the facial skin, giving it a much younger look. It also causes reduction in the size of pores .The procedure is painless.

#### RESULTS

The overall results were excellent. We could not assess the final results in 13 patients. These patients did not complete their treatment program due to various reasons like leaving the country.

**DISCUSSION**

Although aging is a natural process, not all can accept it - specially if it comes prematurely. This can be a source of mental agony and depression. All of the procedures discussed are safe and have no side effects. Various types of rejuvenation procedures can be used separately or in combination, according to the condition of the facial skin and expectations of the patient. All of these procedures are now being done successfully in Bangladesh.

**CONCLUSION**

Facial rejuvenation once a dream can now be realized easily-even in our country.

**Liposuction of Double Chin**



Before

After

**Liposuction of Double Chin**



Before

After

**Botox Forehead Wrinkles**



Before

After

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