A retrospective study of long term evaluation of breast augmentation

Thesis
Submitted for the partial fulfillment of the M.Sc. degree in General Surgery
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2009

Acknowledgment

First and foremost, I feel always indebted to God, the kind and merciful.

I am greatly honored to express my deep respect and gratitude to ***Prof. Dr. Safwat Abdel Kader Salem****, the eminent professor of General and plastic Surgery, Cairo University, for his faithful supervision, understanding, help and encouragement in initiating and completing this work.*

I am most grateful to ***Prof. Dr. Khaled maken Abdalazeem,*** *professor of General and plastic Surgery, Cairo University, for his great help and support throughout all of the steps of this work.*

I am very much obliged to ***Prof. Dr. Abd Elnasser Alnaggar ,*** *professor of General and plastic Surgery, Beni suef University, whose overall supervision to all steps of the work, sincere guidance, and support had a significant impact on the structure and relevance of the research. I do feel too much indebted and too much grateful to him, now and for the rest of my life.*

I am also obliged to my colleague Ass. Lecturer ***Dr. Ahmad Rashad****, for his continuous help and encouragement.*

***Key Words*:**

Augmentation mammaplasty – Evaluation – Implant – Silicone – Saline filled.

Abstract:

In our study 64 implants are used in 30 patients requesting augmentation mammaplasty that had been performed (10 saline and 54 silicone implants, 23 submammary, 7 subpectoral from circumarcolar, inframammary, and axillary approaches). In this work we tried to evaluate the results of breast augmentation and to detect the problems which may occur on the long run such as capsular contracture, delayed ptosis, implant migration, patient acceptance and change in the volume and size of the implant and to define the ways which can enable us to face and manage these events.

We find that silicone filled implant is better than saline filled and the site of implant should be decided according to certain criteria. As a conclusion: volume, site, and type of implant can be detected by proper selection of the patient.

Content

List of Abbreviations

CC : Cubic Centimeter.
IMF : Infra Mammary Fold.
NAC : Nipple Areola Complex.
Fig : Figure .
PUF : Poly Urethethrane Foam.
TASPMA :Trans Axillary Sub Pectoral Mammaplasty Augmentation .
Vol : Volume.

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Introduction

Introduction

The female breast is regarded as a symbol of femininity and it plays a decisive role in a woman's sense of physical and emotional vitality ***(Bohmert and Gabka , 1997) .***

The aesthetically pleasing breast will be of a size and fullness proportional to the body, have minimal ptosis , be conical to teardrop in shape and have the nipple at the anteriormost position ***(Bostwick III,1983 and Goldwyn,1976).***

It is quite difficult to define an ideal breast size in absolute terms since portrayal of the breast in different historical periods shows that the ideal breast varied greatly in shape and size according to the prevailing symbolic value attributed to it and the personal conceptions of the artist ***(Bricout N, 1996).***

Deviations from normal size, shape, and symmetry are interpreted as unattractive. Far from posing merely a cosmetic problem, such deviations deeply disturb both the patient`s perceptions of her body and her emotional balance, and they can markedly diminish patient self –esteem and well-being ***(Bohmert and Gabka ,1997).***

The main indication for surgical augmentation of the breast is an inadequate breast volume due to a developmental disorder or involution atrophy following pregnancy or weight loss ***(Bohmert and Gabka,1997)***

The incision through which the prosthesis is implanted depends on the anatomy, patient's wishes, and the surgeon's experience. The Axillary approach avoids scarring in the breast, but it provides limited exposure of the surgical site. A periareolar incision can minimize noticeable scarring in patients with large areolae . The surgeon should take into account that a visible white scar may remain in patients with darkly pigmented areolae ***(Bohmert and Gabka ,1997) .***

The Inframammary approach was popularized by ***Crown*** and ***Gerow.*** It allows the physician complete visualization of the pocket. It allows also for better control of the inframammary crease and that the procedure is technically easier and more accurate. In addition, the same incision can be used for capsulotomy if necessary
(Picha, G. J. and Batra, M. K. 2000).

The rationale for submuscular placement is based on problems associated with subglandular placement, especially capsular contracture ***(Regnault,1976).***

Complications include capsular fibrosis, haematoma, infection, pain, impaired sensation, scarring, implant migration, formation of wrinkles, and implant rupture ***(Bohmert and Gabka, 1997).***

Aim of Work

In this work we tried to evaluate the results of breast augmentation and to detect the problems which may occur on the long run such as capsular contracture, delayed ptosis, implant migration, patient acceptance and change in the volume and size of the implant and to define the ways which can enable us to face and manage these events.

Patients and Methods

Thirty patients (thirty pairs of breasts) with selection criteria for augmentation with different subgroups; saline filled versus cohesive silicone and retromammary versus submuscular were studied retrospectively throughout ten years following the surgery.

Review of literature

EMBRYOLOGY OF THE BREAST

The mammary glands are a distinguishing feature of mammals, and a primary symbol of femininity in man. It is the largest skin gland, as it is considered a modified sweat gland. It exists in both males and females, but in males it remains in a rudimentary state throughout life. The development of the mammary gland begins early in embryologic life but ends only in the postpartum lactation in the adult female ***(Williams et al, 1989).***

During the fourth week of gestation, paired ectodermal thickenings called mammary ridges or milk lines develop on the ventral surface of the embryo, and extend in a curvilinear fashion convex towards the midline from the axilla to the middle thigh. This is the first morphologic evidence of mammary gland development. Fig. (l)

Later, the milk streaks atrophy with coalescence of cells in the cranial third of each ridge, forming what is known as the breast anlagen, which will determine the future position of the breast ***(Chatterton, 1975).***

At the end of the 4^{th} week of embryonic development, the mammary gland begins to develop a solid bud of epidermis into the underlying mesenchyme. This primary bud gives rise to several secondary buds that develop into lactiferous ducts and their branching then make up the mammary gland ***(Vanlk and Georgiade,1987)*** *Fig. (2).*

The developing breast is sensitive to the action of testosterone hormonal inhibition. The absence of testosterone in the female fetus allows female breast development to proceed. Conversely, the presence of testosterone in the male fetus apparently induces rapid mesenchymal proliferation that effectively strangles the epidermal sprouts and obviates further breast development ***(Porter, 1974).***