Breast Ptosis;
Recent Modalities of Mastopexy

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Rasha Ibrahim

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List of Abbreviations

Abb.	Full term
IMC ..... ;	Inframmary crease
IMF ..... :	Inframammary
M-Ni ..... :	Manubrium-nipple
NAC..... :	Nipple-areola Complex
N-Ni ..... :	Nipple-nipple
UAL..... :	Ultrasound assisted liposuction

INTRODUCTION

Breast ptosis is a disturbing condition for women because it reflects the effect of aging & gravity on breast position. The breast appears droopy & lower than normal, the upper portion appears flattened & lower portion descend below the inframammary crease. The breast skin & fascial attachments have reduced elasticity (stretched or weakened) & cannot support the breast mass at its ideal position ***(Bostwick, 1983).***

Breast ptosis classified into; minimal breast ptosis (1st degree) where the nipple position is at the level of inframammary fold, moderate breast ptosis (2nd degree) where nipple is below inframammary fold but above the lower breast contour, sever breast ptosis (3rd degree) where the nipple is below inframammary fold & below the lower breast contour, pseudoptosis where the nipple is actually at or above the level of the fold but the majority of the breast is below producing the impression that ptosis is present ***(Regnault, 1976).***

A mastopexy is a surgical procedure for correcting ptosis when the breast volume is not satisfactory or hypoplastic. Mastopexy is ideally indicated in women with the following characters; 1) adequate breast parenchyma (B cup), 2) ptosis of nipple areola complex, 3) willing to accept inevitable scars ***(Regnault, 1984).***

In the last decades mastopexy could be done by removal of crescent shaped —portion of skin & breast tissue from upper quadrant of the breast, the remaining breast tissue was sutured to pectoralis fascia to maintain elevation of nipple areola complex ***(Shffman, 2009)*** or suspend the breast from second rib with catgut sutures or by vertical incision with transposition of nipple areola complex superiorly & removal of skin inferiorly ***(Chun et al., 2002).***

Augmentation mastopexy allows correction of more advanced degrees of ptosis with less extensive surgery &confers a more lasting results than mastopexy alone ***(Spear et al., 2009),*** mastopexy with ultrasound assisted liposuction ***(di Giuseppe, 2006),*** rotational mastopexy ***(Corduff and Taylor, 2009)*** radiofrequency assisted tissue tightening for non-excisional breast lifting ***(Duncan, 2012).***

Recently, all surgeons have changed or improved their mastopexy techniques in order to attain a longer lasting result.

AIM OF THE WORK

The aim of this study is to review surgical management of breast ptosis and recent modalities of mastopexy.

ANATOMY OF THE BREAST

The breast is a modified sweat gland whose development and function are regulated through a complex interplay of hormones. No other organs undergoes such dramatic changes in size, shape, and function as does the breast during growth, pregnancy, and menopause ***(Carlson, 2009).***

Structure of the breast are made up of skin, breast tissue (lactiferouse ducts along with breast stroma), and fat.

- Surface anatomy

The breast occupies the anterior chest wall from the second or third rib superiorly to the seventh rib inferiorly and from the sternal edge medially to the midaxillary line laterally,the aesthetically ideal breast appears as a tear drop – shaped protuberance projecting at variable angles from the chest wall, its ventral surface forms a line that is almost straight from the second rib to the nipple, while the lower part from the nipple to the inframammary crease is rounded ***(Prendergast, 2013).***

The nipple is located over the fourth intercostals space, the inframammary crease represents the inferior border of the base of the breast and is an important aesthetic landmark. The crease usually lies over the fifth rib medially with its lowest point at sixth intercostals space, the distance from the inferior

margin of the areola to the inframammary crease ranges from 5-9 cm ***(Prendergast, 2013).***

Many factors influence the shape and contour of the breast, including chest wall contour, the thickness of the underlying musculature, parenchymal volume, the amount of intraparenchymal and subcutaneous fat, fascial attachments of the breast to the chest wall, and skin quality **(Fig. 1)** ***(Hanna and Nahi, 2005).***

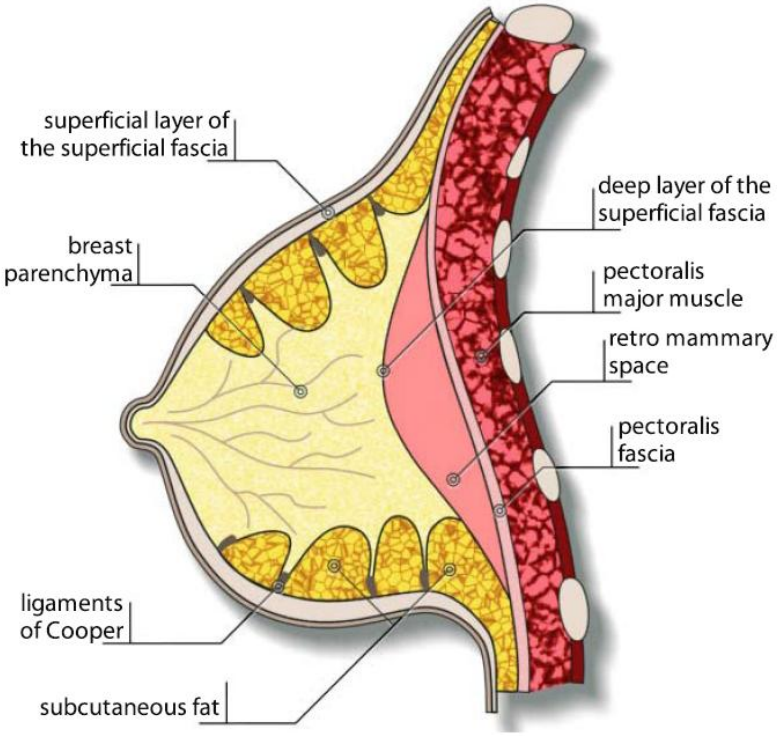

Fig. (1): Mature female breast, anterior view ***(Snell, 2004).***

- Skin

The breast is closely related to its skin envelope and its appearance is affected by skin quality, thickness, and elasticity. These factors are influenced by hormonal and weight changes, gravity, and aging. Over time the skin can become stretched resulting in thinning and loss of elasticity. Thin skin that is subjected to rapid changes in volume, as seen during pregnancy, weight loss, or postpartum involution, can produce stria, which are actual tears in the thinned dermis. The thickness and elasticity of the breast skin is a critical determinant in producing immediate and long lasting surgical results ***(Hanna and Nahi, 2005).***

- Parenchyma

The adult mammary gland consists of varying proportions of glandular tissue proper, connective tissue, and adipose tissue that is different from one woman to another at different stages of reproductive period ***(Bannister et al., 1995).***

1) The glandular tissue proper

It is composed of multiple lobules, which are connected and drained by approximately 16 to 24 main lactiferous ducts. The lobule is the functional unit of the breast, and each lobule is composed of hundreds of acini.