

RECENT TRENDS IN SURGICAL TREATMENT OF GYNECOMASTIA

Essay

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Dedication

- To those who have always been there for me.
- To my mother for her support and dedication and who sacrificed for me.
- In memory of my beloved father who taught me to always do my best and expect nothing less.
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Contents

<u>Subject</u>	<u>Page</u>
<u>No.</u>	
• List of tables-----	i
• List of figures-----	ii
• Introduction-----	iv
• Review of literature :	
❖ Chapter I : Definition and etiology-----	1
❖ Chapter II: Pathology and classification-----	10
❖ Chapter III : Clinical features and diagnostic evaluation-----	24
❖ Chapter IV : Treatment of gynecomastia-----	34
➤ Medical-----	35
➤ Surgical-----	37
✓ Excisional techniques-----	40
✓ Minimal invasive techniques-----	53
✓ Combined techniques-----	70
• Summary and conclusion-----	80
• References-----	85
• Arabic summary-----	\

List of Tables

Table	Description	Page no.
Table (1-1)	Etiologies of gynecomastia.	6
Table (1-2)	Pharmacologic sources of gynecomastia.	7
Table (1-3)	Etiologies of gynecomastia.	8
Table (2-1)	Classification of gynecomastia.	20
Table (3-1)	Classification of Sex Maturity Stages in Boys.	22

List of Figures

Figure no.	Description	Page no.
Fig (2-1)	Florid phase of gynecomastia, Fibrous phase of gynecomastia.	10
Fig (2-2)	Glandular and peripheral origins and interrelation of testosterone, Androstenedion, Estrone and Estradiol.	11
Fig (2-3)	Pathophysiology of gynecomastia.	14
Fig (2-4)	Classification of gynaecomastia.	17
Fig (2-5)	Grade I gynaecomastia.	18
Fig (2-6)	Grade II gynaecomastia.	18
Fig (2-7)	Grade III gynaecomastia.	19
Fig (2-8)	Grade IV gynaecomastia.	19
Fig (3-1)	Differentiation of Gynecomastia from Pseudogynecomastia and Other Disorders by Physical Examination .	24
Fig (3-2)	Algorithm for the laboratory approach to the patient with pathologic gynecomastia.	28
Fig (3-3)	Algorithm for evaluation and treatment of gynecomastia.	29
Fig (4-1)	Reason for surgery.	34
Fig (4-2)	The PTP incision applied to the areola. The outer drawing shows the resection limits.	38
Fig (4-3)	Areolar access incisions for the breast.	39
Fig (4-4)	(a,c) Patient with grade 1 unilateral gynaecomastia preoperatively, (b,d) postoperative pictures of the same patient after a subcutaneous mastectomy through circumareolar incision.	40
Fig (4-5)	Trans-axillary approach.	41
Fig (4-6)	(a,b) Preoperative and postoperative pictures of a patient with grade 2 gynaecomastia corrected with subcutaneous mastectomy using a “Benelli” approach for mild skin reduction.	44
Fig (4-7)	Marks for the anchor keyhole incision.	44
Fig (4-8)	Before and after pictures in a young man who underwent RM for gynecomastia.	45

Fig (4-9)	A 17-year-old patient with moderate-to-large breasts treated by suction-assisted liposuction, open excision and Lejour mastopexy.	46
Fig (4-10)	A. Location of incisions for suction-assisted lipectomy of gynecomastia. B. Direction of liporuction through both incisions.	50
Fig (4-11)	(A) Contour Genesis machine. (B) Intraoperative view of the probe in situ with skin protector.	52
Fig (4-12)	A 16-year-old patient with moderate-to-large breasts treated by suction-assisted liposuction only.	54
Fig (4-13)	A special order Toledo V-dissector cannula is used to sever the subdermal attachments of fibroglandular breast tissue.	55
Fig (4-14)	A 4.5-mm Masaki skin protector with a 4.0-mm obturator.	56
Fig (4-15)	Cartilage shaver handpiece.	58
Fig (4-16)	Preoperative (<i>left</i>) and postoperative (<i>right</i>) views of a 15-year-old boy with glandular hypertrophy.	59
Fig (4-17)	A 16-year-old boy with dense glandular and fatty gynecomastia treated by liposuction and shaver.	60
Fig (4-18)	A 20 years old with right gynaecomastia.	64
Fig (4-19)	The preoperative mark around the breast margin and trocar incision sites.	64
Fig (4-20)	one month after endoscopic subcutaneous mastectomy, no visible scar over the anterior aspect of the chest.	65
Fig (4-21)	Pull-through resection of gynecomastia demonstrated.	66
Fig (4-22)	A 16-year-old male patient with persistent unilateral enlargement of the right breast treated with pull-through resection.	68
Fig (4-23)	Preoperative/10-week postoperative appearance of a 14-year-old male patient with bilateral gynecomastia.	69
Fig (4-24)	Diagrammatic algorithm for a practical approach to the surgical management of gynaecomastia.	70

Introduction

Introduction

Gynecomastia is generally defined as benign abnormal enlargement of the male breast. It is literally translated from its Greek roots; gynes (woman) and mastos (breast). It may be unilateral or bilateral. It is the most common deformity encountered among male patients. The incidence of gynecomastia has been reported in 32% to 65% of the male population. **(Yavuz et al., 2006)**

The disease may be physiological or pathologic. Physiological gynecomastia occurs most frequently during times of male hormonal changes that occur during three periods in life: in newborns, in puberty and with aging. In cases of newborn enlargement, maternal or placental estrogens are the underlying cause. Newborn gynecomastia usually resolves within the first few weeks post-delivery. Pubertal male breast-tissue enlargement occurs in about 60-70% of adolescents, with onset at a median age of 14 years. In approximately 90% of patients, pubertal gynecomastia resolves spontaneously within a few months to years. The condition may or may not be associated with any functional deficit, such as pain. Patients who develop significant pain or tenderness may be suitable candidates for medical therapy. Most cases of physiological gynecomastia are considered normal findings, requiring no treatment. **(Griffen and Wilson, 2003)**

Pathologic gynecomastia is associated with androgen deficiency and/or estrogen excess and may result from the use of medications (e.g., estrogens, androgens, calcium channel blockers, antihypertensives, digitalis preparations, aldactone), endocrine abnormalities (e.g.,

hyperthyroidism), tumors, chronic disease (e.g., cirrhosis of the liver), chromosomal abnormalities (e.g., Klinefelter's syndrome) and other familial disorders. Men who use anabolic steroids to enhance athletic performance often demonstrate gynecomastia. Gynecomastia has been reported to be a common side effect of certain therapies for prostate cancer, including non-steroidal anti-androgen monotherapy. The use of illegal drugs such as marijuana, heroin, methadone and alcohol, have also been linked to gynecomastia. **(Griffen and Wilson, 2003)**

Classification of gynecomastia can be done in a variety of ways, such as etiology, age, and pathologic type; however, it seems that plastic surgeons prefer to classify it from a surgical viewpoint. The classification, first described by Hoffman and Simon, is based on the surgical requirements of the patient: grade I, minimal enlargement, no skin excess; grade IIA, moderate enlargement, no skin excess; grade IIB, moderate enlargement with excess skin; grade III, marked enlargement with significant excess skin. **(Aslan et al.,2005)**

A careful history and physical examination is the most important part of any work-up for gynecomastia. The history must note the time of onset of the gynecomastia, symptoms associated with the gynecomastia, drug use (both medically prescribed and recreational), and careful review of systems. Organ system changes associated with gynecomastia include liver, renal, adrenal, pulmonary, pituitary, testicular, thyroid, and/or prostate. Physical examination should include assessment of the breast gland. This will include the nature of the tissue, isolated masses, and tenderness. The thyroid should be evaluated for enlargement. The testis should be examined to look for asymmetry, masses, enlargement, or atrophy.

Laboratory evaluation is based on the findings of the history and physical examination. Healthy adults with a normal physical examination (other than gynecomastia) and longstanding gynecomastia do not need further work-up. **(Karp, 2007)**

Neonatal and pubertal gynecomastia rarely requires any medical intervention and is most appropriately treated with expectant management

In situations where gynecomastia is due to estrogen excess or androgen deficiency, treatment of the underlying medical condition can partially or completely treat the gynecomastia. **(Cederna, 2009)**

Gynaecomastia present for more than 2 years is unlikely to regress spontaneously so surgery remains the mainstay of treatment. The first reported surgical treatment of gynaecomastia was by Paulus Aegineta (625–690 AD), who used a lunate incision below the breast. Such extra- areolar skin incisions with their unsightly scars continued to be used until Webster, in 1946, described an operation with a semicircular intra-areolar incision, which has become the standard operation for excision of gynaecomastia. Over the following years, numerous approaches were described. **(Fruhstorfer and Malata, 2003)**

The surgical treatment of gynecomastia requires an individual approach, depending on the grade of male breast hypertrophy and the components of breast tissue. In Simon grade I gynecomastia, liposuction alone can be used only in pseudogynecomastia; surgical glandular tissue excision can be used in true glandular hypertrophy, and pathology examination of the resected tissue is needed. In Simon grades II and III patients, excision of the glandular tissue with the pull

through technique in conjunction with UAL is advised for a better aesthetic result, and skin excision is not suggested. Circumareolar periareolar skin incision combined with UAL, nipple reposition, and pull-through technique is suggested only in Simon grade III patients with massive skin redundancy and ptotic deformity of the breast. **(Li et al., 2012)**

Nowadays surgical treatment of gynaecomastia can make use of different techniques like suction-assisted lipoplasty or ultrasound-assisted liposuction, and the endoscopic approach, or some combination of these methods have made it possible to reduce the invasiveness of the operation, improving the final result and reducing scars. **(Cordova and Moschella, 2008)**

Aim of the work

The aim of this work is to review the recent trends in the surgical management of gynecomastia.

Chapter (I)

DEFINITION AND ETIOLOGY