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Case Reports

Gynecomastia in Adults: about 5 Cases

Nasr Mounia [1*]

[1] Reconstructive and Aesthetic Surgery, Moulay Ali Cherif Regional Hospital Center, Errachidia, Morocco

*** Corresponding Author:** Nasr Mounia, Reconstructive and Aesthetic Surgery, Moulay Ali Cherif Regional Hospital Center, Errachidia, Morocco. E-mail: docteurnasr.m@gmail.com

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Abstract

Gynecomastia is a benign proliferation of the male mammary gland. It can be unilateral, but most often it is bilateral. It can appear either at birth, at puberty, or at an advanced age in men when it is physiological, or it can be pathological. A complete assessment must be carried out to find an etiology. Surgical treatment consists of removal of the gland with or without liposuction and resection of excess skin in necessary cases. An anatomopathological study is mandatory and important to detect an associated tumor. The request for surgery is most often for aesthetic purposes.

Keywords: Gynecomastia, Adults, Surgery, Male

Introduction

Gynecomastia is an increase in the volume of the mammary gland in men. It is most often bilateral but can be asymmetrical and clinically apparent on only one side in half of the cases. It is sometimes sensitive, even painful, mainly during the first months after its appearance.[1-4] It can be physiological: Indeed, 60-90% of newborns have transient gynecomastia secondary to the increase, in the fetal circulation, of estrogens produced by the placenta. Later, 50-70% of adolescents will present with gynecomastia (peak at the age of 13-14 years) whose mechanism is uncertain: delayed production of testosterone compared to that of estrogens at the beginning of puberty, transient increase in aromatase activity, and/or increased sensitivity to estrogens.

Puberty gynecomastia generally regresses spontaneously between six months and two years, but its persistence after seventeen years, of the order of 10%, represents a frequent cause of gynecomastia in adult men. The third peak of appearance of gynecomastia concerns middle-aged men (~50% of men >50 years), and its frequency increases with age. Its origin is multifactorial. Indeed, over the years, there has been an increase in fat mass at the expense of lean mass. However, adipose tissue is an active site for the aromatization of androgens into estrogens. In addition, there is a decrease in testicular production of testosterone over time and an increase in the SHBG rate, which will further reduce the free, biologically active fraction of testosterone.[1,5,6]

Case Reports

These are five cases operated on in the surgery department of the Moulay Ali Cherif regional hospital in Errachidia during the two years 2023 and 2024.

Case #1 is a young patient aged 25 years presenting with unilateral left gynecomastia grade 2a, which appeared since adolescence without spontaneous regression, painful on palpation, without galactorrhea, with normal hormonal assessment.

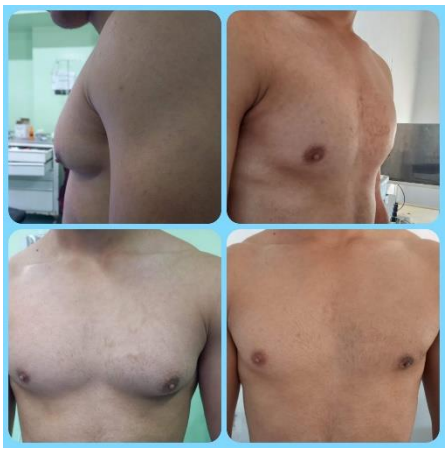
Case #2 young patient aged 23 years presenting with grade 1 bilateral gynecomastia, evolving since adolescence without spontaneous regression, not painful, without other associated signs, hormonal assessment without particularity.

Case #3 young patient aged 27, with a history of obesity, presenting with grade 2b bilateral gynecomastia, which appeared since adolescence without spontaneous regression, was not painful, had a hormonal assessment of slight hyperestrogenemia, normal testosterone levels, and without other associated signs, normal testicular ultrasound.

Case #4 80-year-old patient, history of poorly monitored hypertension, smoker, presenting for several years with grade 2a bilateral enlargement of the mammary

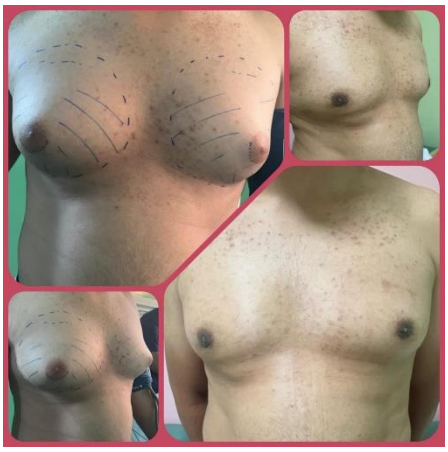
Table 1. Etiologies of Gynecomastia

Physiological Gynecomastia	**Prevalence**
Gynecomastia	
Of the newborn	60-90%
Of the teenager	50-70%
Of the old man (>50 years)	> 50%
Non-physiological gynecomastia	Frequency
Idiopathic	25%
Persistent puberty gynecomastia	25%
Drugs	25%
Cirrhosis/malnutrition	8%
Hypogonadism	
Primary (infection, trauma, surgery, radiotherapy, toxic or genetic cause, etc.)	8%
Secondary (hypothalamic-pituitary pathologies, hyperprolactinemia, radiotherapy, genetic cause, etc.)	2%
Tumors	
Testicular (germ cell, Leydig cell or Sertoli cell tumors)	3%
Adrenal (carcinomas)	Rare
Others (lungs, liver, etc.)	Rare
Hyperthyroidism	1-2%
Chronic renal failure	1%
Others	Rare
Enzymatic defects in testosterone production	
Androgen insensitivity syndrome	
True hermaphroditism	
Increased aromatase activity	



Case 1

Case 2



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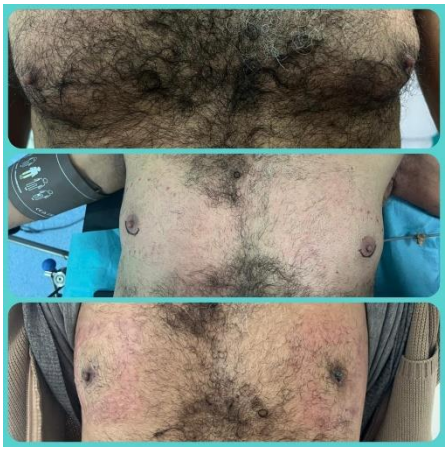
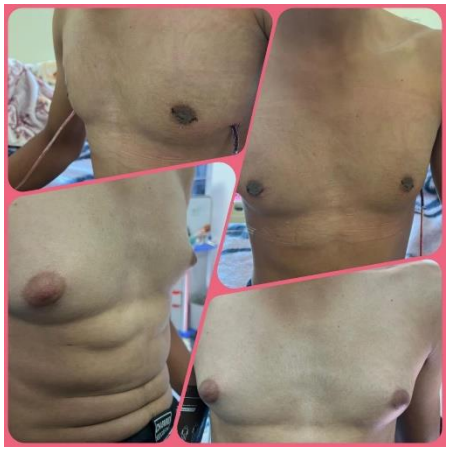


Case 4



Case 5

gland, without associated pain or galactorrhea, hormonal assessment without particularities.

Case #5 21-year-old patient, presenting with grade 1 bilateral gynecomastia, fibroglandular, slightly painful on palpation, without associated galactorrhea, evolving since puberty. Normal hormonal assessment and testicular ultrasound.

The five cases did not present any homolateral axillary adenopathies.

All patients underwent a complete hormonal assessment, as well as a breast and testicular ultrasound.

Surgical treatment for cases 1, 2, 4, and 5 was based on glandular excision via the lower hemi-areolar incision, and case number 3 on glandular excision associated with bilateral liposuction.

The postoperative course was simple with the removal of the Redon drain between 24 and 48 hours postoperatively.

The anatomopathological results returned in favor of fibroglandular tissue with or without association with adipose tissue, without histological signs of malignancy in the 5 cases.

Discussion

Gynecomastia corresponds to a benign proliferation of the male mammary gland, unlike pseudo gynecomastia, which is linked to an increase in the fatty component of the breast, most often associated with obesity.[7]

Gynecomastia can be part of different etiologies.

Gynecomastia is said to be physiological when it occurs in the neonatal period, during adolescence, and in older men. It is most often bilateral and rarely requires exploration.[7-9]

Depending on the endocrine abnormalities highlighted in blood biology, the examinations may be supplemented by a testicular ultrasound, an abdominal CT scan[9] or even an MRI of the sella turcica.[10]

The differential diagnosis is breast carcinoma, which represents 0.2% of cancers in men; it is important to systematically exclude it.[9,11]

Gynecomastia, whether unilateral or bilateral, is classified as follows:

Classification of Simon for gynecomastia[12]

Grade I: Small hypertrophy, without excess skin

Grade IIa: Moderate hypertrophy, without excess skin

Grade IIb: Moderate hypertrophy, with excess skin

Grade III: Significant hypertrophy, with excess skin

Physiological gynecomastia often resolves spontaneously within a year. Beyond that, depending on the discomfort caused, surgery may be proposed.

In the case of a suspected drug etiology, stopping the medication generally leads to the improvement of the gynecomastia.

Depending on the endocrine etiologies identified, the cause should be treated.[7,10]

Treatment of the idiopathic form generally involves surgery.[13] Hormonal treatment with danazol or tamoxifen may be proposed[9,11,14] after ensuring the absence of a testicular tumor process.[11]

These gynecomastias can be treated by liposuction, subcutaneous mastectomy, or both at the same time.[15,16] Given the risk of malignancy, more frequently reported in unilateral gynecomastia, we recommend performing a subcutaneous mastectomy through a lower periareolar incision (Webster)[17] with histological examination of the resected tissue. Surgical complications are hematoma or total areolar necrosis. Partial peripheral necrosis of the areola generally progresses favorably through directed healing, which may leave a slight areolar dyschromia. Under- or over-corrections can be corrected secondarily by additional excision or adipocyte grafting.

Conclusion

Plastic surgery is the best treatment to propose when gynecomastia does not regress with the above-mentioned treatments, when it causes significant aesthetic discomfort, or when it lasts for more than 12 months.[18-20] In most cases, this intervention will include both surgical excision of the glandular tissue with or without liposuction of the adipose tissue via a periareolar incision. The aesthetic results are very satisfactory, and complications (deformed breast, hematoma, residual nipple pain) are rare. The possibility of cancer, although low (1%),[21] should always be sought.

Conflict of Interest

The author declares no conflicts of interest.

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