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CASE REPORT

A CASE REPORT OF UNILATERAL GYNECOMASTIA

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ABSTRACT: Gynecomastia presents as abnormal hypertrophy of mammary tissue in a male, resembling female breast. There is hypertrophy and elongation of the ducts with considerable fibrosis. Gynecomastia is usually bilateral and due to hormonal influence which can regress. But unilateral gynecomastia is uncommon and it is a red flag for excluding male breast carcinoma. In this case report, the patient presented with unilateral left gynecomastia.

KEYWORDS: Gynecomastia, Benign, Liposuction, Male Breast Carcinoma, Hyper estrinism.

INTRODUCTION: The rudimentary male breast is relatively free from pathologic involvement. Only two processes [1] occur with sufficient frequency to merit consideration. They are gynecomastia and carcinoma of male breast. Usually gland lobules are not found in the normal male breast. As in female, the male breast is subject to hormonal influences but is considerably less sensitive than female. Nonetheless, enlargement of male breast (Gynecomastia) may occur in response to hyper estrinism. Gynecomastia may also be seen in chronic marijuana smokers and heroin addicts. And can usually occur without apparent cause.

The consent is obtained from patient and parents.

CASE REPORT: A 20 year old male patient working in a beauty salon presented with complaints of enlarged, tender, left breast for the past 2 years. As he felt psychologically embarrassed and as his breast enlargement was unilateral and was noticed by his friends he has taken local treatment with drugs and liposuction but enlargement has not regressed. He approached our hospital. Patient is non-alcoholic, nonsmoker with no past history of medication, liver disease, renal disease, or any traumatic injury. On examination patient was normally build, for his age, had moustache, conversing in loud voice.

On local examination, the left side on the breast was 2.8 cm in diameter and there was no nipple discharge on either side. Both axillae were normal with normal axillary hair. There was no axillary lymphadenopathy. On palpation abdomen was normal. Testes were normal in size and volume was found in both the scrotal sac. On investigation, complete blood picture, liver function tests, renal function tests, thyroid function tests were normal. Ultrasound abdomen, ultrasound scrotum was normal. Ultrasound both breast showed enlargement of the left breast side with no changes in architecture. Fine needle aspiration cytology showed scanty benign ductal epithelial cells in midst of adipocytes. No other features suggestive of malignancy were noted. Management: Sub areolar mastectomy of Webster was done and post-operative period was uneventful and wound healed well.

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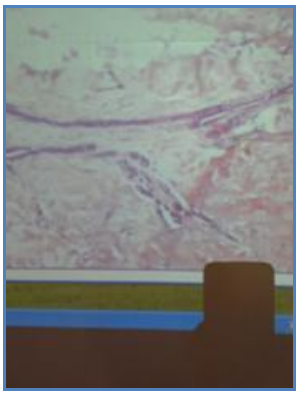
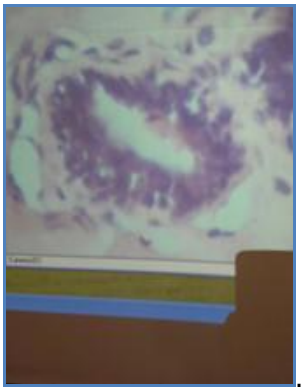
Pictures of the patient with unilateral left Gynaecomastia

Picture of the specimen of Subareolar Mastectomy of Webster on left side

Picture of the mounted specimen of mastectomy



Picture of the Histopathological Slide of Gynaecomastia



Histopathological picture showing scanty, benign, ductal epithelial cells. Anaplasia is absent.

DISCUSSION: Definition: Gynaecomastia is defined as benign enlargement of the male breast tissue. "Gynae" means woman and "mastos" means breast in Greek. It can be defined as the presence of > 2cm of palpable, firm, subareolar gland and ductal breast tissue [2].

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It may occur at any time and there are number of causes, some physiological and others pathological. Pathological causes involve an imbalance between the activity of androgens and estrogens the former is decreased compared with the latter.

Epidemiology: Gynaecomastia is common and is thought to be present in more than 30% of men with much higher rates in men over the age of 70 years. In comparison breast cancer is only detected in 1% of cases[3] of male breast enlargement. 65% - 90% of male neonates have gynaecomastia due to transfer of maternal estrogen and progesterone.

Pathophysiology: Estrogen stimulates breast tissue growth whilst androgens inhibit it. The important factor is the ratio of active androgens to estrogens. The ratio can be altered as a result of reduced testosterone production/action or enhanced estrogen production/action or both. Once this ratio falls, breast tissue is stimulated to grow. This leads to proliferation of breast ducts and fibroblastic stroma. If the stimulus to proliferation continues then the ducts and fibroblastic stroma are replaced by fibrosis and gynaecomastia becomes well established and irreversible.

Causes of Gynaecomastia:

1) Physiological: a) Newborn b) Adolescence c) Old age
2) Pathological:
   a) Lack of testosterone:
      (i) Congenital absence of testes
      (ii) Klinfelter's Syndrome (XXY Syndrome)[4]
      (iii) Viral Orchitis
      (iv) Trauma
      (v) Castration
      (vi) Renal Failure
   b) Increased estrogen levels:
      (i) Testicular tumors, Leydig's cells
      (ii) Hermaphroditism tumor
      (iii) Obesity
      (iv) Malnourishment
      (v) Liver disease
      (vi) Hyperthyroidism
   c) Drugs – 20% of all cases in adult men
      (i) Anabolic Steroid
      (ii) Digoxin
      (iii) Gonadotropins
      (iv) Cimetidine
      (v) Methyldopa
   d) Gynaecomastia of unclear cause
      (i) Chronic illness
      (ii) HIV
      (iii) Refeeding after starvation
      (iv) Hemodialysis induced
   e) Idiopathic

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Clinical Features: There is painless, insidious breast enlargement, usually bilateral. Mammary tissue can be palpated as a slightly tender mass, slipping under the fingers.

Investigations and Examination should be done to detect any cause, with special reference to testicular size and evidence of cirrhosis and to exclude malignancy as its incidence is higher in gynaecomastia. Investigations aimed at detecting underlying disease, especially endocrinopathy and chromosomal defects have to be done in appropriate cases. Since in a large majority of young men it is idiopathic, elaborate and expensive investigations are unwarranted, as a routine. ER, PR, AR (aromatase) and AgR (Androgen receptors) May be detected in male breast tissue, but only PR is considered important in the etiology and treatment.

Management:

Medical	Surgical
Danacrine sulphate – a gonadotrophic antagonist	Liposuction
Tamoxifen citrate – an antiestrogen compound	Subareolar Mastectomy of Webster
Cabergoline antiprolactin agent	

Liposuction [5] – It is a minimally invasive technique done under general anesthesia employing a special suction device introduced subcutaneously through a 5 mm incision and aspirating the entire fat and mammary tissue in the pectoral region. Surgery is followed by compression dressing to prevent lymphatic collection in the dead space created. Occasionally a small subareolar incision is also required to excise residual, firm, fibrous mammary tissue which cannot be aspirated.

Gynaecomastia and Male Breast Cancer: Male breast cancer accounts for 1% of all breast cancer. Mean age of male breast cancer in 65 years. There is an increased risk in Klinefelter's syndrome and a positive family history.

Conditions which increase suspicion of breast cancer in men:

1) Unilateral enlargement
2) Hard or irregular breast tissue
3) Rapidly enlarging
4) Recent onset
5) Fixed mass
6) Nipple or skin abnormalities
7) Painful
8) More than 5 cm
9) Axillary Lymphadenopathy

Prognosis:

1) Gynaecomastia is mostly a benign condition
2) Complete resolution can occur if the underlying cause is identified and treatment initiated before fibrosis of breast tissue occurs.
3) Gynaecomastia can be physically embarrassing and psychologically distressing for patients and this should not be under estimated.

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