

Gestational gigantomastia: A case report

Faisal Alotaibi

ABSTRACT

Introduction: Gigantomastia is a rare disorder characterized by excessive breast growth. Classified according to the etiology to Idiopathic, hormonal stimulation and drugs induced. The differential diagnosis of gigantomastia include fibroepithelial tumors such as fibroadenomas and cystosarcoma phyllodes and less likely malignant breast carcinoma. As the majority of gigantomastia cases are bilateral a malignant process is unlikely. Histopathologically the breast tissue shows varying degrees of stromal and ductal hyperplasia with dilatation. Collagenous fibrosis and cellular myxoid hyperplasia can sometimes be seen. There is often prominent ductal proliferation with cystic degeneration. Edema is a characteristic finding in both the interstitium and periductal regions. **Case Report:** We are reporting a case of 32-years-old female G4, P2+1 who presented with bilateral progressive breast enlargement over four months complicated by ulceration/ infection and milk secretions. She underwent bilateral segmental mastectomy and started on bromocriptine, and the plan of management to be continued after delivery by reduction mammoplasty. **Conclusion:** Gigantomastia defined as excessive breast growth of over 1.5 kg per breast. Classified to three groups according

to the etiology. Diagnosis of this disease needs a histopathology and treatment always by surgical intervention with other modalities.

Keywords: Gigantomastia, Stromal Hyperplasia, PASH

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INTRODUCTION

Gestational gigantomastia is a very rare condition, which is related to pregnancy. This condition mainly presenting with progressive and massive enlargement of breasts bilaterally, sometimes ended by tissue necrosis and breast skin ulceration and infection. In most of the cases, acute enlargement of breast resolved in the postpartum period. In this case study, a 32-year-old female presented with gestational hypertrophy of breasts for who combined medical and surgical management successfully treating her acute presentation [1–3].

CASE REPORT

A 32-year-old female referred to breast and endocrine clinic complaining of sudden progressive bilateral breast enlargement for four months. Associated with hotness and redness. There was no history of palpable breast masses, nipple discharge nor skin changes.

Faisal Alotaibi

Affiliations: MD, SB-SURG, Department of general surgery, prince sultan Riyadh military medical city, Riyadh, Saudi Arabia.

Corresponding Author: Faisal Alotaibi, MD, SB-Surg, Department of general surgery, prince sultan Riyadh military medical city, Riyadh, Saudi Arabia, 4584-13214; E-mail: fai9al_ot@hotmail.com

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Past medical history and surgical history was unremarkable. Her physical examination revealed a normal vital sings. Breast examination showed large bilateral breast, redness discoloration, no skin dimpling, no nipple retraction tenderness all over the breasts, no palpable masses, no nipple discharge, no palpable axillary lymph nodes (Figure 1). Her labs investigations showed white blood cell count was 10.5 and hemoglobin was 13.4. Her pregnancy test came to be positive. Other investigations were within normal.

Imaging

Ultrasound showed bilateral breast masses, heterogeneous echogenicity, significant edema. Appearance could be due to granulomatous mastitis. Fibroadenomas associated with infiltrating disease of the breast (Figure 2).

The skin biopsy and core needle biopsy showed fibroadenomatous hyperplasia. Negative for malignancy. Patient discharged home as a case of gestational hypertrophy of the breast with F/U in the clinic. Six weeks later patient presented to the clinic with F/U US which showed mild improvement of breast edema but still the size of breasts the same, patient reassured. Six weeks later patient presented to emergency room with ulceration and fungation of breast tissue and milk secretions. Patient admitted under obstetric and gynecology as a case of G4 P2 +1 at 28 weeks G.A with BL breast masses.

Her investigation upon presentation showed white blood cell count 11.4, hemoglobin 13, prolactin level was 3233.

Culture from the ulcers: *Staphylococcus aureus* and *Klebsiella pneumoniae*.

The case discussed in multidisciplinary team including obstetric and gynecology, breast surgeon, plastic surgery, and endocrinology. The team decided to start her first on bromocriptine to minimize milk secretion, also to help in wound healing and decrease breast engorgement. Additionally started her on antibiotic. Also to do for her bilateral segmental mastectomy to treat her acute presentation. Finally, the team consider reduction mammoplasty post-delivery. Patient underwent bilateral segmental resection, her postoperative course was uneventful and she was discharged home. During her follow-up in the clinic the wound healed well.

The histopathology final report was extensive mammary hyperplasia. No in situ or invasive carcinoma seen.

The patient delivered a healthy baby girl and refuse the option of reduction mammoplasty.

DISCUSSION

Gigantomastia is a rare condition characterized by excessive breast growth(>1.5 kg) and can be physically

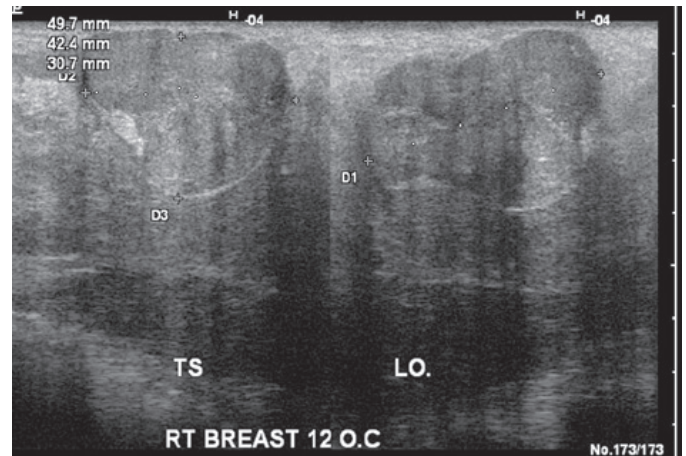


Figure 1: Rightt breast mass with heterogeneous echogenicity, significant edema. Appearance could be due to granulomatous mastitis. Fibroadenomas associated with infiltrating disease of the breast.



Figure 2: large bilateral breast, Redness discoloration, No skin dimpling, No nipple retraction Tenderness all over the breasts, no palpable masses, no nipple discharge, no palpable axillary lymph nodes.

and psychosocially disabling for the patient. The first paper we could find using the term gigantomastia was by Lewison et al. in 1960. However, there is still no concordance in literature, with terms used including macromastia and hypertrophy [1].

Symptoms of these condition usually progressive breast enlargement, mastalgia, ulceration/infection, postural problems, back pain and loss of nipple sensation. The deferential diagnosis includes malignant breast tumor and fibroepithelial tumors. As the majority of gigantomastia cases are bilateral a malignant process is unlikely. Usually, the imaging investigation will show bilateral breast masses, heterogeneous echogenicity, significant edema. Appearance could be due to granulomatous mastitis. Fibroadenomas associated with infiltrating disease of the breast [4–8].

Classification (according to the etiology) is idiopathic gigantomastia, endogenous hormone stimulation and drug induced. Histology of these disease varying degrees of stromal and ductal hyperplasia with dilatation. Collagenous fibrosis and cellular myxoid hyperplasia. There is often prominent ductal proliferation with cystic degeneration. Edema is a characteristic finding in both the interstitium and periductal regions. There have also been reports of lymphatic dilatation. Treatment options includes surgical and medical. Medical treatment in form of hormonal therapy bromocriptine is dopamine agonist, resulting in a significant decrease in the release of prolactin from the anterior pituitary gland. High doses of bromocriptine can cause involution of the breasts with slowing or reversal of growth during pregnancy [8].

Surgical intervention in form of reduction mammoplasty and mastectomy include subtotal mastectomy with breast implants, staged procedures employing tissue expanders or indeed autologous breast reconstruction. Gigantomastia defined as excessive breast growth of over 1.5 kg per breast. Group 1 is idiopathic in nature which can be managed with a breast reduction in the first instance and tend to have a good prognosis.

Group 2 is a result of endogenous hormone imbalance and present with aggressive and unremitting breast growth. They often require multiple reduction and consideration should be given to a primary mastectomy with breast reconstruction. Group 3 is drug induced and responds well to cessation of therapy with or without breast reduction [8].

CONCLUSION

Gestational gigantomastia is a rare condition. The acute presentation can be treated by bromocriptine and segmental mastectomy if needed. Mastectomy and reduction mammoplasty can be delayed after delivery.

Author Contributions

Faisal Alotaibi – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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