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Case Report

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GIGANTOMASTIA WITH PREGNANCY, A CASE REPORT AND A REVIEW OF LITERATURE

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Summary

Gigantomastia or "Gravidic macromastia" during pregnancy is a massive diffuse enlargement of the breast during gestational period. It is a rare condition of undetermined aetiology, which may be due to hormonal excess, or hypersensitivity of the target organ to normal hormonal level. Histologically it is due to glandular hyperplasia with an increase in connective tissue. This paper reports an unusual case of gigantomastia in 22 years old lady, who is gravida 2, para nil, with total breast weight of 15,850 kg. Ulceration and haemorrhage of the breasts complicated the picture and end in abortion followed by subtotal mastectomy and free implantation of nipple areola complex.

Introduction

Breast hypertrophy is a normal phenomenon occurs during puberty and pregnancy. Massive fuse enlargement of the breast during pregnancy is a rare condition (1: 100000 pregnancies)[1] and called "Gigantomastia". Palmuth[2] first described this condition but the aetiology remains unknown[3]. The condition is usually resolved spontaneously after delivery or it may persist and need surgical interference[4].

The following case report of a 22 years old lady with bilateral gigantomastia, who is gravida 2 para nil. She has a total breasts weight of 15.850 kg. Her condition was more complicated by breast oedema, haemorrhage and ulceration of the skin of the distal part of the breast i.e. around the areola and the nipple. This unfortunate lade became bed confined and crippled, which eventually lead to termination of her pregnancy and late mastectomy.

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Case history

A 22 years old lady in her 4 month of pregnancy, was first seen in May 2002 presented as a bilateral massive diffuse enlargement of the breasts (Fig.1), causing a dragging and distress with difficulty of breathing in supine position. These huge breasts were limiting her normal activity; she had also backache

and cervical pain. Her first pregnancy ended by spontaneous abortion at 1.5 month. In the second pregnancy, the breasts started to enlarge abnormally after the first moth and got its huge size at 4 months.

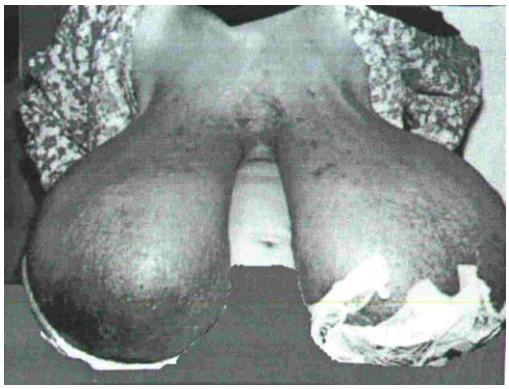


Figure 1.

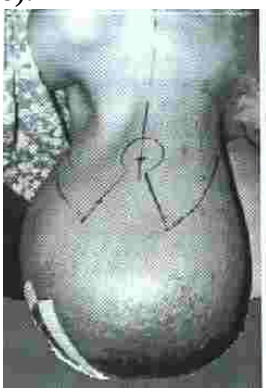
On examination; patient was kyphotic on standing position and her arms were lifting her breasts. There were massive enlarged breasts extending to blow her waist, the skin of the distal part near the areola showed signs of skin oedema (peau-du-orange) with pitting sign, also there was necrosis of the skin, ulceration and bleeding all over the distal part. The proximal part of the breasts showed striae of the skin.

The gynaecological advice was to terminate her pregnancy of the basis of severe crippling effect, and that was done two weeks before admission to the plastic unit.

Patient was taken to plastic unit on Monday 27th of May, two weeks following abortion, her breasts started to get less oedematous, the laceration and ulceration were getting more clean, her skin lesion were treated with systemic and local antibiotic cover. During her stay in hospital prior to surgery, she tried to avoid any movement and remained in bed with the breasts rested on pillows to relief her pain. The original plan was to let the odema subside before any surgery done, but because of the insisting of the patient, her family and the severe pain, the operation was done.

Operative Findings

Subtotal mastectomies of both breasts were done through a keyhole and submammary incision (Fig. 2 and 3); all breast fat and hypertrophied breast tissue were removed. The weight of tissue mass removed was 15.850 Kg (right side = 7 Kg. and left side = 8.850Kg). The nipple and areola complex were planned to be at midclavicular line at 5th intercostal space about 20 cm from sternal notch in oblique direction (Fig. 4-6).



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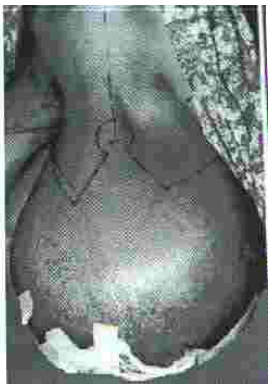
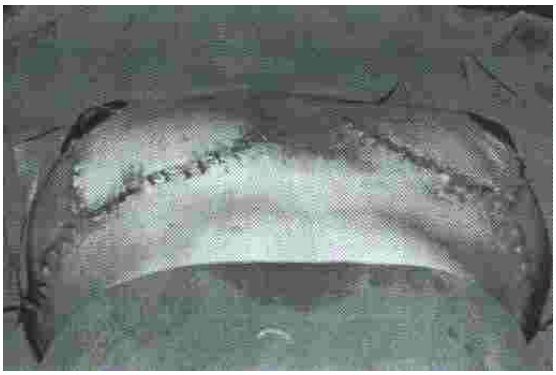


Figure 3



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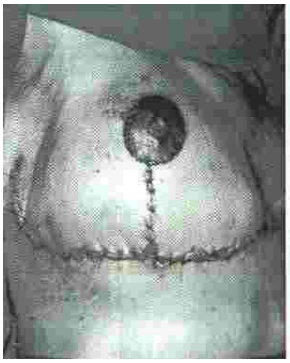

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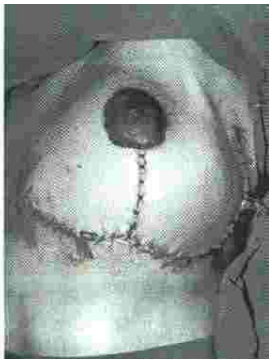

Figure 6.

Free nipple-areola graft was implanted, but because these tissues were already ischaemic and showed sign of oedema and lceration they were not expected to survive. The wound then closed in two layers and dressing was applied.

At immediate postoperative period, patient showed good recovery with minor wound infection. The free nipple-areola graft was, as expected, failed and the tissue had to be removed, patient was so happy with the result that she refused any further surgery and the bare area left to be epithelialized.

Two months post operatively, there were no sign of any breast enlargement, and wound was soundly healed. Patient and parents were happy.

Pathology Report

Microscopic examination revealed diffuse fibroadenosis of the breast, with no sign of malignancy.

Discussion

This is s rare condition of unknown aetiology[3]. It is either due to excessive hormonal secretion of prolaction i.e. hyperprolactinaemia [5,6] or it may be due to abnormal sensitivity of prolactin receptors in the target organ (i.e. breast tissue) to normal level of hormonal secreations[4,5], but Lafreniere et al[6] found all receptors were normal.

At the beginning there was an increase in connective tissue. A considerable degree of interstitial oedema may develop which causes the huge breast size[2]. The enlargement may be associated with skin ulceration followed by infection and may be bleeding[7]. Fine needle aspiration may show aggregation of cells in large groups or in papillary from spaced by fluid. The nuclei lack nucleoli and sometimes contain vacuoles[8].

The large size and weight of the breast restricts patient mobility because of the dragging pain and kyphosis accompanied by backache and cervical pain[2].

The conservative management proved to be of limited value[1]. The initial conservative therapy consists of breast support, bed and analgesia, if this failed then surgery is considered[5].

Hormonal manipulations by testosteron, progesteron, stlbesttrol and hydrocortisone have been tried with no benefit[1]. Bromocriptin[8] had been used unsuccessfully specially if pregnancy occur because of regrowth of the breast[9]. After first abortion the size of the breast decreased but not to its normal size before pregnancy[8].

Therapeutic abortion may be considered because of the regression in postpartum period. Abortion is considered when the condition is out of control with no response to medical treatment and the patient is bed ridden or even crippled by the heavy weight. This option is not always an acceptable option[7].

Infection, ulceration and haemorrhage are absolute indications for surgery. Surgery also depends on the size of pregnancy and risk of miscarriage during surgery [2,4].

What surgical procedure to be done? There is a lot of controversy about the optimum procedure; the choice is between reduction mammoplasty, subtotal mastectomy or total mastectomy. Reduction nannoplasty needs a long-term hormonal manipulation. Recurrence occurs if patient gets pregnant because of the regrowth of the breast[9]. Subtotal mastectomy with immediate re-implantation of nipple areola complex as a free graft could give a better results[2,7,10].

Morimoto and co workers used reduction mammoplasty followed by administration of tamoxifen to suppress any residual breast tissue if the tissue was positive for estrogen receptors.

Conclusion

This is a rare condition with ill-understood aetiological factors. Surgical treatment is the management of choice; subtotal mastectomy combined with immediate implantation of nipple areola complex gives a better cosmetic result.

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