Case Report

A Rare Case of Recurrent Gestational Gigantomastia with Complete Resolution After Delivery

Attiya Begum¹, Khansa Iqbal², Kausar Kyani³

¹Assistant Professor, ²Senior Registrar, ³Postgraduate Trainee
Dept of Obs/Gynae, Holy Family Hospital, Rawalpindi

Correspondence: Dr. Attiya Begum, Assistant Professor, Dept of Obs/Gynae, Holy Family Hospital, Rawalpindi
Email:drattiya@hotmail.com

Abstract

Gigantomastia is an extremely rare condition characterized by diffuse enlargement of breasts over and above their physiological size. This rare disorder of undetermined aetiology, may be induced by ovarian steroids, somatotropic, and lactogenic polypeptides during pregnancy. Target organ hypersensitivity or increased number of hormonal receptors in the breast can be possible mechanistic pathways involved, though further research is warranted. Although gestational gigantomastia is a physiologically and physically disabling disorder, but it is not associated with poor gestational outcomes. We present a unique and interesting case because of its occurrence in four preceding pregnancies. It was managed conservatively in the index pregnancy with complete resolution in the postpartum period.

Keywords: Gigantomastia,

Introduction

Gestational gigantomastia is a rare physically and psychologically disabling condition that was first described by Palmuth in 1684.¹ and is characterized by excessive growth of breast tissue. The quoted incidence is 1 out of every 28,000 to 1 out of every 10,000 pregnancies which can lead to variety of symptomatology. Complications are secondary due to extreme tension on skin as a result of increase breast weight.²

To date there is no consensus on the definition of gigantomastia.³ Most physicians describe the condition when the excessive tissue is over 1.5 kg (3.3 lb). Major drawback is that diagnosis based on this definition is retrospective. Some authors consider ulceration and other disease related symptoms as the distinguishing features between physiologically enlarged breasts and the medical condition.
The aetiology of gigantomastia remains, unclear. Many proposed mechanisms have been described, which include hormonal abnormalities, over sensitivity of receptors, drugs, and autoimmunity.\textsuperscript{4,5} In our case hormonal levels of prolactin, oestrogen, human placental lactogen, and human chorionic gonadotrophins were within normal range which suggests that cause can be due to over sensitivity of receptors.\textsuperscript{6} This can be an underlying aetiology. In this patient pain, tenderness and postural disability were present due to increased breast weight.\textsuperscript{2} Skin changes included hyperaemia, venous engorgement and enlargement of nipples and aerola. The skin changes are mainly secondary due to increased breast weight.

Gigantomastia is a rare medical disorder of breast connective tissue with an incidence of 1/28000 to 1/100,000 pregnancies. Physiological changes in breast are more pronounced at puberty and during pregnancy. Breasts have a pivotal role for the newborn child especially in developing countries where breast feeding is common. Thereby gestational gigantomastia is considered important because it adversely affects the milk supply from breast to the infant.

Case Report
A 32 years old school teacher married for 13 years during her 5\textsuperscript{th} pregnancy noticed a progressive enlargement of breasts from the 3\textsuperscript{rd} week of pregnancy. She was Gravida 5, Para 4 with two alive issues and one IUD. On admission she was 32 weeks pregnant. The enlargement started in the 1\textsuperscript{st} trimester suddenly and simultaneously in both breasts and was rapidly progressive till 20\textsuperscript{th} week of pregnancy. There was extreme discomfort in her neck and back, because of the breast weight and marked limitation of movement to the extent that she kept a maid to lift her breasts and took leave from her job. There was no milky discharge from her breasts.

Examination revealed an average sized female weighing 72 kg. She was mildly pale with a hemoglobin of 9.9 gm/dl, and was afebrile on presentation. Other vital signs were normal with a pulse of 84 /min, blood pressure 120/80 mmHg and respiratory rate of 16 breaths per minute. Her menarche commenced at 14 years of age with regular, menstrual cycles. There was no history of contraception no signification past medical history but surgical history revealed previous four lower segment caesarean sections. She gave similar history of gross breast enlargement in all her previous pregnancies but no family history of breast disease. On physical examination both breasts were markedly enlarged and extending up to the level of umbilicus (Figure 1).

The skin over the breast was red and having overlying dilated veins (Figure 2).

Both breast had scar marks on antero superior aspect from where the biopsies were taken after her 1\textsuperscript{st} pregnancy and subjected to histopathological analysis which revealed changes consistent with normal breast tissues (Figure 3). There was diffuse nodularity but no lymphadenopathy.

Abdominal examination revealed fundal height of 34 weeks, with a fetus in cephalic position with
positive and regular fetal heart sounds. There was a pfannensteil scar from previous Ceasarean sections. A diagnosis of gestational gigantomastia was made and patient was admitted for fetomaternal surveillance.

Patient was monitored during her pre-operative stay and an elective lower segment Ceasarean section was done at 38 weeks with delivery of an alive male baby weighing 2.5 kg with good APGAR score 8/10. Bilateral tubal ligation was carried out after taking informed consent.

In our case gigantomastia made it difficult for the patient to breast feed her new born. Postoperative period was complicated by anaemia and blood transfusions were given. Patient otherwise remained well during postoperative period. She developed mastitis, and was started on Tab Bromocriptine 2.5mg and advised to wear supportive Bra. She was discharged on 5th postoperative day in stable condition.

**Treatment:** a conservative approach was taken for this case of gigantomastia in pregnancy since there was previous history of similar episodes in preceding pregnancies which were resolved through conservative approach.

**Follow Up:** on follow up visit after 7 weeks, the condition of baby and mother were good, gigantomastia had resolved completely.

**Discussion**

Gigantomastia was recurrent during pregnancies with complete resolution thereafter in this patient which is also described in previous case reports. It can however occur as de-novo in any pregnancy.

Apart from physical disability the social consideration has a great impact as seen in the patient resulting in long absence from her job and financial liability imposed subsequently. Malignancy like nonhodgkin lymphoma, phylloides
tumor and lymphoblastic lymphomas are possible differentials while considering the diagnosis. These however, can be ruled out by biopsy, which was done in the patient during her 1st pregnancy. Histopathology of biopsied tissue excluded the malignancy and the findings were consistent with the changes found in the pregnant breast. Treatment options include medical and surgical modalities. Many agents like, bromocriptine, testosterone, dydrogestrone, hydrocortisone, medroxyprogesterone acetate, and diuretics have been used. The most popular one is bromocriptine which is said to halt progression and also cause regression. This medication was used in this patient for a short period however she refused to take it for a longer duration.

The patient delivered by caesarean section for obstetrical reason but this rare condition does not impose bar on delivery by vaginal route. She refused surgical options for breast problem after her delivery. Reduction mammoplasty and mastectomy are the alternative procedures available.

This condition has a negative impact on breast feeding which is considered to be of prime importance in developing countries. The patient had complete resolution of the condition after 7 weeks. Surgical intervention should be well thought over in view of complete spontaneous resolution of gigantomastia after delivery as also reported by others in the literature.

References