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Juvenile Mammary Hypertrophy: The Embarrassment of an Indigent School Girl and Literature Review

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***Abstract*— We present the management of bilateral mammary hypertrophy in an orphan teenage school girl who lives with her grand mother. She dropped out of school because of embarrassment and inability to conceal the giant breasts in her school uniform. The patient was offered bilateral breast reduction, secondary nipple-areolar complex reconstruction and postoperative tamoxefen. The breast reduction was successful—as the patient smiled for the first time postoperatively—and she was discharged on the 10th postoperatively.**

***Index Terms*— Breast reduction, Nipple-areola complex ,secondary reconstruction.**

I. INTRODUCTION

Aim: This case is reported to illustrate the suffering of orphan children in some countries and to serve as an addition to the reported pool of this relatively rare condition.

Introduction: The breast is a modified sweat gland located on the anterior chest wall between the clavicle above and the rectus sheath below and from the midline of the sternum to the posterior axillary line horrizontally; but the visible breast mound is less than the anatomic extent given above. This usually extends from the second rib superiorly to the six rib inferiorly and from the lateral border of the sternum to the anterior axillary line. It also has the axillary tail of Spence. The breast is subject to both congenital and acquired diseases.

Juvenile mammary hypertrophy is one of the acquired benign diseases. It presents as rapid enlargement of the breast, usually both breasts, but occasionally one breast, in the teenage girl. Some boys may have enlargement of one or both breasts during puberty but this usually regresses although reduction may rarely be required; however, these male breast enlargements do not usually attain the size seen in female juvenile mammary hypertrophy. This disease is also known by the following names—virginal hypertrophy, juvenile gigantomastia, and juvenile macromastia. This disease is different from juvenile papillomatosis (Swiss Cheese Disease).

The breast being prominently placed in the anterior chest wall and having a great aesthetic value in the female, makes this condition a serious cause for concern. Therefore, management is both physical and psychological because the patient is often ostracized by her peers.

Fig.1. Patient smiled for the first time at discharge.
She attended the first postoperative visit in one month but failed to come back for reconstruction of the nipple-areola complex in three months after the reduction.

II. CASE REPORT

This is the case of a sixteen-year-old secondary school student who had menarche at 16 years and commencement of breast development 6 months before menarche. Breast development was rapid and in 3 months they had attained average adult size. There was no history of trauma, no nipple discharge but there was associated dull pain and dragging sensation in the breast and back. At home her grand mother massaged the breasts with hot water. She continued to attend school for six months during the enlargement but dropped out when the breast were too large (fig.2).

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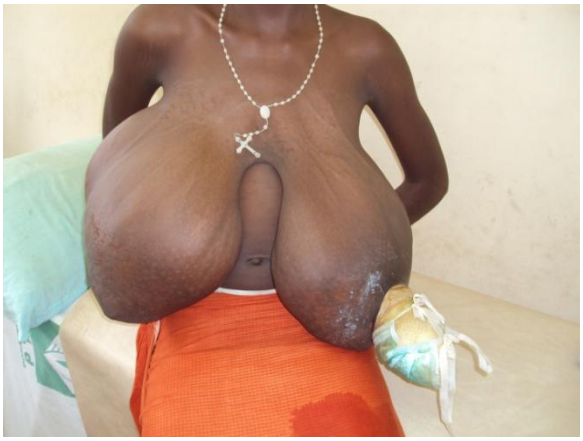

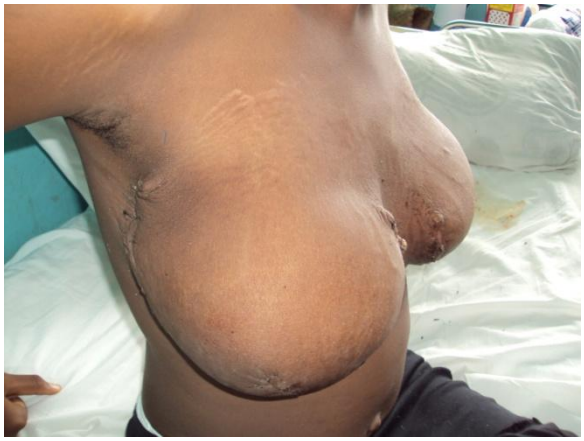

preoperative picture. Non of her clothes could fit her and so she wore a skirt and used a cloth to cover her trunk and stayed indoors all the time. Her parents are deceased and she lives with her grand mother. Some of her classmates paid her a visit, took her photograph and were watching the pictures in class when the class teacher saw it and informed the school authority. The pictures, without the face of the patient, were shown on television for philanthropists to donate money for hospital treatment. Initially the patient presented to the general surgeon where FNAB and other investigations were done. The site of FNAB developed a fungating ulcer before She was referred to the plastic surgeon for management.

On examination the patient stoops forward while walking, was mildly pale, not in respiratory distress, anicteric and afebrile. The respiratory rate was 18 cycles per minute and the temperature was 36.6 degrees celsius. The head and neck, limbs and abdomen were grossly normal. The breasts were markedly enlarged, almost extended to the groin. There were distended, tortuous veins on the breasts and a fungating ulcer on the left breast which measured about 6cm by 6cm in dimension and had eroded part of the nipple-areola complex. The breasts were mildly tender and have homogenous nodularity. There were no axillary or supraclavicular lymph node enlargement.

The following investigations were done: complete blood count gave a heamoglobin of 13g/dl, the blood cells were morphologically and numerically normal ; urine analysis was normal ; Fine needle aspiration biopsy (FNAB) was negative for malignancy and incisional biopsy was also negative for malignancy.

Operative procedure: Relevant measurements before surgery include—

1. Suprasernal notch to nipple distance was 40cm on the right side; the left side had a fungating ulcer.
2. Nipple to inframammary fold distance was 31cm.

A standard Wise-Pattern skin marking was done but not strictly followed because of the size of the breast. Bilateral breast reduction (amputation of the breast) was performed (fig.3).

Postoperative picture. Bilateral nipple-areolar complex reconstruction was planned as a second procedure in three months.

Discussion: The management of this patient has been a challenge because of many factors. The fact that her parents are deceased made financial support barely available except for a few philanthropists. Besides, she needed to return to school urgently and even after breast reduction she found it difficult to associate with her peers because of memories of her past breast disease. A clinical psychologist was necessary as part of the treatment team to help her associate with her peers. Daily tamoxefen administration and secondary nipple-areola reconstruction was difficult because of financial constraints; indeed the secondary surgery has not been done seven years after discharge due to lack of funds and embarrassment. The fact that she will not be able to breast feed her children when they are born has added to her depression. Tragically, she has once called her doctor and threatened to commit suicide. Luckily, we still make contact with her over the phone.

Some workers have reported recurrence of this condition after surgery despite bromocryptine administration but there is no recurrence in our patient for seven years with daily use of tamoxefen for the first five years[1]. The largest number of cases of juvenile mammary hypertrophy was presented by Stephen B. Baker et al (four cases)[2]. The youngest patient, 11 years old, was described by I.H.Kove[4].

III. Conclusion

Juvenile mammary hypertrophy in the indigent in poor resource communities is a huge challenge; treatment should be multidisciplinary and patients should be carefully counseled to avoid suicidal tendencies.

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