CASE REPORTS

Effect of gigantomastia on School attendance.

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Abstract

**Introduction.** We have been seeing a number of juvenile/teenage girls presenting to our outpatient department with gigantomastia/large breasts. These school going girls had not been attending school due to the large breasts and taunting by school mates as well as scrutiny by the public.

**Aims and Objectives.**
- To do Reduction Mammaplasty.
- To do histological investigation.
- To encourage these teenage girls to go back to school.

**Materials and Methods.**
Nine juvenile/teenage girls aged between 11 and 16 years were prospectively enrolled for this study from 2016 to 2020. Eight had reduction mammaplasty and one had subcutaneous mastectomy with free nipple graft. The specimens were weighed and sent for histology.

**Results.** Nine juvenile/teenage girls were included. The age range was 11-16 years and the weight range was 27-33 Kg. Loss of school attendance time was 3 months to 2 years. Median weight of excised breast tissue was 2.5(1.2 – 5 kg).

**Histology.** Normal breast = 6, Fibroadenosis = 3.

**Conclusion.**
Gigantomastia affected school attendance by as much as two years. Reduction mammaplasty was our treatment of choice.
Taunting and lack of fitting clothes affected self-esteem of these patients.
The juvenile girls have now returned back to school.
Keywords: Gigantomastia, Juvenile girls, school attendance, reduction mammaplasty, subcutaneous mastectomy.

1. **INTRODUCTION**

\begin{itemize}
  \item To do Reduction Mammaplasty.
  \item To do histological investigation
\end{itemize}
• To encourage and support the patients to go back to school.

Background.

We have been noticing juvenile girls presenting/referred to our outpatient clinic because of massive breast enlargement. These large breasts prevented patients from attending school and participating in sports and social activities. These girls complained that other students laughed at them. Some had completely stopped attending school. They also complained of a smell from underneath their breasts and said they were always tired due to the weight of the breasts. They could not afford to buy fitting brassieres. All were from low socioeconomic families. The cause of gigantomastia is not known. It is however associated with hypersensitivity of mammary estrogen receptors to normal circulating estrogen.

Material. Nine juvenile girls.

Methods. Patients were prospectively enrolled and operated during 2016 – 2020. Before operation, an informed consent was obtained from parents or guardian. Complete physical examination was done after taking full history of the breast enlargement, and that of breast cancer in the family. Haematology and biochemistry investigations were done. Patients were starved for operation 6-8 hours before operation. At operation the excised breast tissue was weighed and sent for histology. Histological evaluation was for excluding conditions like breast cancer, lymphomas, sarcomas, giant fibroadenoma and phyllodes tumours.

2 | RESULTS.

Nine juvenile girls were included.

Supplementary information The online version of this article (https://doi.org/10.15520/jmrhs.v3i8.243) contains supplementary material, which is available to authorized users.

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Loss of school attendance time was 3 months to 2 years.
The age range was 11-16 years and the weight range was 27-33 kg. Median weight of excised breast tissue 2.5(1.2 – 5 kg.

Histology
Normal breast 6
Fibroadenosis 3
Total 9

Management.
Our management was surgical. We did eight reduction mammoplasty with free nipple graft and one subcutaneous mastectomy with free nipple graft. The patient with unilateral left breast enlargement Fig. 1, will have further breast surgery after the age of 19 to match the size and volume of the right breast.

3 | DISCUSSION.

Little has been written about the effect of gigantomastia on school attendance (1). Here we are presenting series of school going juvenile girls who could not attend school for periods ranging from 3 months to 2 years due to their large breasts which resulted in taunting by other students as well as scrutiny by the public. During this sensitive period of their development, these girls could not find fitting brassieres let alone fitting clothes. This may lead to negative body image. These girls admitted that they did not participate in sports and other social activities. (2) The weight of the breasts prevented patients from participating in mobile sporting activities. Most of public schools do not offer sedentary sporting activities. The cause of gigantomastia is not known, but is believed to be secondary to hypersensitivity of the mammary gland tissue to normal levels of estrogen around the time puberty (3) (4). In our environment, these patients demonstrate the failures in our health system. It is surprising

How the left giant breast Fig. 1 was not diagnosed at the school clinic or indeed at the local clinic and referred to a tertiary hospital for further management earlier on. This reflects weaknesses in our health system. The delay in seeking medical help may be
due to that, the relatives were still consulting traditional healers. Traditional and faith healers have a lot of influence in our environment. In common with findings elsewhere our patients complained of intertrigo in the infra-mammary fold (4) except that in our patients the intertrigo was smelly. Probably our warm environment enabled growth of bacteria that produce smelling gasses. Our patients did not have shoulder grooving because they did not wear brassiers, because they could not afford them. Dilated and engorged veins were visible on the enlarged and pendulous breasts. The areolar complexes were wide with flattened nipples. The weight of our study population ranged between 27 – 33 kg, therefore we could not associate breast hypertrophy to an upsurge of obesity as noted in other studies (2) We did not do breast imaging as it has been shown to be of little value due to dense breast tissue. (7) Although we did not detect malignancy in our histology specimens, the potential for malignancy in these hyperplastic breasts still exists.

**4 | CONCLUSION.**

Gigantomastia affected school attendance by as much as two years.

Reduction mammoplasty was our treatment of choice.
EFFECT OF GIGANTOMASTIA ON SCHOOL ATTENDANCE.

Taunting and lack of fitting clothes affected self-esteem of these patients. The juvenile girls have now returned back to school.

5 | RECOMMENDATIONS.

To encourage community medicine and family health colleagues to do breast screening in clinics and at schools.

Include psychologists and psychiatrists in the study in order to evaluate the psychosocial impact of gigantomastia on the patients.

To continue searching for the cause of gigantomastia

Conflict of interests. The author and coauthors have no conflict of interests.

The study was approved by Mankweng and Polokwane Research Ethics Committee Ref. PM-RECO3UL

Acknowledgement.

Would like to thank the nursing staff in ward S for their motherly care of these patients.

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How to cite this article: S.Z M., L U., P M. Effect of gigantomastia on School attendance. Journal of Medical Research and Health Sciences. 2020;1059–1063. https://doi.org/10.15520/jm-rhs.v3i8.243