Case Report

Persistence of Neonatal Breast Enlargement/Variant of Premature Thelarche in a 3-Year-Old Girl - A Case Report

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Abstract

A three year old female child brought to the hospital by the mother who was worried about the child's breast size and consequent social and health implications. We documented enlargement of the right breast at Tanner stage 3. The left side was normal for her age. There were no other signs of puberty. Calls for health education on natural history to prevent drastic interventions like mastectomy as already suggested to her. Also need to shield the child from paedophiles and possible poor self-image while growing up.

Keywords: Neonatal; Breast enlargement; Thelarche; Psychology; Sexual abuse

Introduction

Maternal estrogen is known to cause varying degrees of breast enlargement in approximately 70% of newborns. [1] Usually the diameter of breast bud measures 1 cm to 2 cm in the first few weeks of life. [2] The breast swelling reduces and should go away by the second week after birth as the hormones leave the newborn's body. Interventions like squeezing or massaging the newborn's breasts are not recommended because this can cause cellulitis and abscess formation. [3] Maternal hormones may cause milk secretion from the nipples of the newborn. This has been referred to in lay terms and folklore as witch's milk. It is common and tends to stop discharging within 2 weeks. [3]

Occasionally the resolution of the breast swelling is not total and some breast tissue can be felt. This however does not progress in size till onset of puberty which commences with thelarche in females. Thelarche means "the beginning of breast development." Therefore, if a girl begins to show breast enlargement at an early age (anywhere from birth to six years), it is called "premature thelarche." [4]

Thelarche is the first physical change of puberty in about 60 percent of girls, usually after 8 years of age. It is a result of rising levels of estradiol. It is typical for a woman's breasts to be unequal in size, particularly while the breasts are developing. Statistically it is slightly more common for the left breast to be the larger. [2] In rare cases, when the breast is fully developed, there may be significant difference in size, or one breast may fail to develop entirely.

When thelarche occurs at an unusually early age, it may be the first manifestation of precocious puberty. If no other changes of puberty or sex hormone effects occur, it is referred to as isolated premature thelarche, and needs no treatment.

Premature thelarche is a benign, self-limiting condition which is characterized by breast development with no other signs of sexual maturation. There may well be two types of premature thelarche. The classical type commences during the first year of life and tends to resolve by the age of two. The second form of premature thelarche, of which the age of onset is over two years of age, tends to be more persistent and with a higher incidence of uterine bleeding for the child.

Some culturally administered beverages (Fennel tea) have also been implicated in premature thelarche. The breast size was however found to regress with discontinuation of the consumption. The active ingredient being a phytoestrogen called anethole. [5] Other factors like increased sensitivity of breast tissue to estradiol (E2), transient E2 secretion from ovarian cysts, and transient activation of the hypothalamo-pituitary-gonadal (HPG) axis have been proposed as possible mechanisms. [6-8] Girls who receive a tentative diagnosis of Premature Thelarche should be followed up for at least one year to confirm the diagnosis.

Typically, the girl will have no other signs of puberty, and growing at a normal, pre-pubertal growth rate, i.e., about two inches a year. Laboratory studies are not usually helpful, since they show low (pre-pubertal) concentrations of estrogen or other hormones that stimulate pubertal development. An x-ray of the hand shows normal bone age. [4]

As with menarche, many young girls are not prepared for breast development, or have been trained to feel ashamed of breasts through active instruction or modeling, some possible consequences of such practices are negative body image,

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appearance anxiety, lowered self-esteem, and delayed diagnosis of breast tumors. In some countries, introduction of research-based educational materials on breast development for primary and middle schools has been proposed to promote breast health by reducing shame. [9]

Case Report

Patient BG presented at the pediatric outpatient department in the company of her mother who was worried that her child had enlargement of the right breast. Further questioning revealed that this one sided breast enlargement was noticed in the first week of life. Mother had attempted massaging and rubbed some ointment at that stage but swelling did not resolve so she stopped. The breast enlargement has been gradual but continuous. She had consulted other mothers who told her it might go away on its own, while others advised her to go to hospital for possible surgery [Figure 1].

She had hoped that the breast will reduce in size and did not bother till child started nursery school and she noticed that people were casting a second glance at her. This was worsened by the fact that the child was always touching the affected breast; a gesture which the mother thinks is an indication of self-consciousness and may draw more attention to her. There was no history of vaginal bleeding.

Physical examination revealed a young female child, active and quite playful with adequate speech development for age. Anthropometric measurements: Height: 97cm; Weight: 15 kg; MUAC: 15.3cm. All within normal limits for age. Musculoskeletal system examination revealed a Right sided breast mound size 5 × 5 cm, tanner stage, 3 palpation showed a mass that felt like normal breast tissue. There was no other sign of sexual maturation. No pubic or axillary hair, no acne. The breast on the left side was normal (Tanner stage 1) for age. Patient had normal female external genitalia. An umbilical hernia was noted. The mother declined investigations except if it was geared towards surgical intervention on the breast. No investigation was carried out but we counseled her and recommended 3 monthly visits for the purpose of monitoring of both breast growth and anthropometry and any emergent psychosocial issues. The mother stopped bringing the child after 2 visits during which no abnormality was documented in breast tissue and physical development.

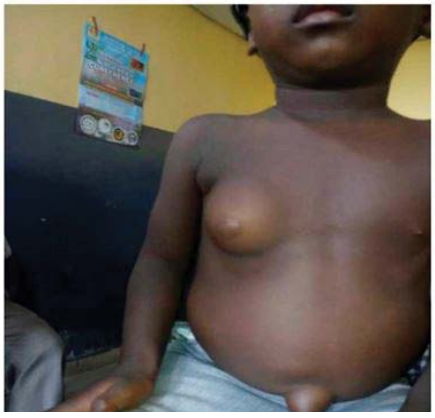

Figure 1: Three year old girl with uni-lateral breast enlargement.

Discussion and Conclusion

Unilateral breast enlargement can occur in 18.7% of newborns and has no sex predilection. [10] Proper counseling to arm the mother so that she is not led to take the child for surgery as suggested is important as this can be found even in literature where bilateral mastectomies have been carried out.

There is need for counseling to forestall poor body image and breast shame. Which both lead to low self-esteem and negatively affect a child's mental health, cause them to do poorly in school, ruin their social life and become highly vulnerable to peer pressure and bullying. [9,11] Most importantly child has to be shielded from aggressors of the opposite sex who may take advantage of the child.

In this era of increasing instances of child sexual abuse, any abnormality that draws attention towards a female child and predisposes her to abuse or exploitation, needs to be addressed in all facets.

Conflict of Interest

I declare there is no conflict of interest.

References

1. Amer A, Fischer H. Neonatal breast enlargement. N Engl J Med. 2009;360:14-45
2. Jayasinghe Y, Cha R, Horn-Ommen J, O'Brien P, Simmons PS. Establishment of normative data for the amount of breast tissue present in healthy children up to two years of age. J Pediatr Adolesc Gynecol. 2010;23:305-311.
3. Rennie JM. Examination of the newborn. In: Rennie J, ed. Rennie and Roberton's Textbook of Neonatology. 5th ed. Philadelphia, PA: Elsevier; 2012:14.
4. Kappy MS, Ganong CS. Advances in the treatment of precocious puberty. Adv Pediatr 1994;41:223-261.
5. Deniz O, Nihal H, Selim K, Leyla A. Mustafa K. Premature thelarche related to fennel tea consumption? Journal of Pediatric Endocrinology and Metabolism. 2014;27:175-179,
6. Pasquino AM, Piccolo F, Scalamandre A, Malvaso M, Ortolani R, Boscherini B. Hypothalamo-pituitary-gonadotropin function in girls with premature thelarche. Arch Dis Child 1980;55:941-944.
7. Tenore A, Franzese A, Quattrin T, Sandomenico ML, Aloi G, Gallo P, et al. Prognostic signs in the evolution of premature thelarche by discriminant analysis. J Endocrinol Invest. 1991;14:375-381.
8. Verrotti A, Ferrari M, Morgese G, Chiarelli F. Premature thelarche: A long term follow–up. Gynecol Endocrinol 1996. 1996;10:241-247.
9. Menarche: The transition from girl to woman," Sharon Golub (ed.) (Lexington Books, Toronto, 1983.
10. Chapp-Jumbo AU, Ijeoma S, Okoronkwo NC. Prevalence, practices and perceptions surrounding neonatal breast enlargement- A South East Nigerian experience JOGECA. 2014;58-60.
11. Breast shame: Tradition, deception and the money trail sex hysteria.