ORIGINAL ARTICLE

BREAST DISEASES IN ADOLESCENT GIRLS: IGIMS HOSPITAL EXPERIENCE

Dipali Prasad¹, Kalpana Singh², Sangeeta Pankaj³, Manoj Kumar⁴, Vijayanand Choudhary⁵

HOW TO CITE THIS ARTICLE:

Dipali Prasad, Kalpana Singh, Sangeeta Pankaj, Manoj Kumar, Vijayanand Choudhary. "Breast Diseases in Adolescent Girls - IGIMS Hospital Experience". Journal of Evolution of Medical and Dental Sciences 2014; Vol. 3, Issue 12, March 24; Page: 3119-3122, DOI: 10.14260/jemds/2014/2253

ABSTRACT: INTRODUCTION: Breast disorder in the adolescent girls is fortunately an uncommon presentation with most lesions turning out to be benign. **METHOD**: The study population consisted of 152 adolescent girls in RB OPD of IGIMS, Patna from Oct, 2010 to March, 2013 of which 48 adolescent girls presented with breast problems. **OBSERVATION**: The Clinical and Sonographic evaluation confirmed the diagnosis of benign tumor (41.66%), Fibrocystic changes of breast (37.50%), Developmental disturbances (8.33%), Abscess (6.25%), Inherited defect (4.17%) and mammary duct ectasia in (2.09%) of cases. **CONCLUSION**: Adolescent girls presenting with breast problem in tertiary care centre, IGIMS was 31.57% in the study group. Breast disorders in adolescent girls are mostly benign (noncancerous). Adolescent girls presenting with breast problem should never be over looked and thoroughly evaluated to prevent long term complications.

KEYWORDS: Adolescent girls, breast diseases.

INTRODUCTION: Breast disorder in the adolescent girls is fortunately uncommon with most lesions turning out to be benign. Breast development is the first sign of puberty in young girls. Breast development during adolescence is an important marker of the transition to adulthood.¹

Breast development before 8 years is defined as premature, whereas thelarche after 12 years is considered delayed. The grading system elaborated by Tanner is commonly used to classify the normal progression of breast development into 5 stages.² However, the spectrum of breast diseases in childhood and adolescence is generally different from that in adults.³ In contrast to adults, the risk of malignancies of the breast is very low.⁴⁻⁶ The most important diagnostic imaging method is breast sonography ^{7,8}, which has wide acceptance because of its lack of radiation hazards.

Developmental anomalies or abnormalities of breast can result in poor self – esteem or make the adolescent girl self-conscious. The presentation and diagnosis of breast problems in adolescent girls are discussed in this paper.

MATERIAL AND METHODS: The study population consists of 152 adolescent girls in RB OPD of IGIMS, Patna from Oct, 2010 to March, 2013 of which 48 adolescent girls presented with breast problems. All adolescent girls were clinically examined and assigned a Tanner grade for breast development. A standardized sonographic examination was performed in all the cases. Specific blood tests like thyroid profile and serum prolactin were done as required on individual basis. All patients with confirmed breast abnormalities underwent standardized follow up investigation comprising of clinical examination and sonography, at 3 to 6 month intervals.

OBSERVATION:

Presentation of Breast disorder in Adolescent girls	n= 48	
Painless, movable and firm round lump	20	41.66%
Breast Pain	10	20.83%
Cyclic Breast Pain	6	12.50%
Nipple discharge	2	4.16%
Asymmetry of Breast	4	8.33%
Breast infection or Abscess	3	6.25%
Extra Nipple	1	2.09%
Extra Breast	1	2.09%
Mammary duct ectasia	1	2.09%
Table 1		

Diagnosis of Breast Disorder in Adolescent	n= 48		
Solid benign tumor	Fibroadenoma (19)		
n=20 (41.66%)	Phylloides tumor (1)		
Fibrocystic Breast n=18(37.50%)	Mastalgia (10) Cyclic Mastalgia (6) Nipple discharge (2)		
Developmental disturbance Asymmetry of breast n=4(8.33%)	Macromastia (1) Micromastia (3)		
Breast Abscess or infection n=3(6.25%)	Abscess or Mastitis		
Inherent defect n=2(4.17%)	Accessory Nipple (Axillary & chest wall) Accessory Breast tissue(Axilla)		
Other n=1(2.09%)	Mammary duct ectasia		
Table 2			

RESULT: The clinical and sonographic evaluation confirmed the diagnosis of benign tumors (41.66%), Fibrocystic changes of breast (37.50%), Developmental disturbances (8.33%), Abscess (6.25%), Inherent defect (4.17%) and Mammary duct ectasia (2.09%).

DISCUSSION: Common presenting sign and symptoms in the adolescent patient are breast pain, nipple discharge, and discovery of a mass ^{9, 10}. In the present study Fibroadenoma was present in (39.58%), Fibrocystic changes of breast in (37.5%), Abscess in (6.25%), Inherited defect as Accessory Nipple in (2.09%), Asymmetry of Breast in (8.33%) and Accessory Breast tissue in (2.09%). In one study of all breast masses diagnosed in adolescents, recent retrospective chart reviews demonstrate that approximately 67% are fibroadenoma, 15% are fibrocystic changes of breast, and 3% are abscess or mastitis ¹¹. It is estimated that approximately 25% of adolescent female have breast

ORIGINAL ARTICLE

asymmetry that persist in to adulthood ⁴. Breast abscesses may occur in adolescent women, particularly if they are lactating. These are managed with antibiotic, drainage using Ultrasonography or drainage in the operating room. Good success has been reported for ultrasonography-guided abscess drainage ^{12, 13}. Mastitis in nonlactating adolescents may occur ¹⁴. An extra breast (polymastia) or extra nipple (polythelia) occurs in approximately 1% of the population. It may be an inheritable condition ¹⁵.

REFERENCES:

- 1. De Silva NK, Brandt ML. Disorders of the Breast in children and adolescents, Par 1: Disorders of growth and infections of the Breast. J Pediatr Adoles C Gynecol 2006; 19:345.
- Tanner JM. Growth in Adolescence. 2nd ed. Oxford, England: Blackwell Scientific Publications; 1962.
- 3. Weinstein SP, Conant EF, Orel SG, Zuckerman JA, Bellah R. Spectrum of US findings in pediatric and adolescent patients with palpable breast masses. Radiographics 2000; 20:1613-1621.
- 4. Elsheikh A, Keramopoulos A, Lazaris D, Ambela C, Louvrou N, M ichalas S. Breast tumors during adolescence. Eur J Gynecol Oncol 2000; 21: 408-410.
- 5. Ferguson CM, Powell RW. Breast asses in young women. Arch Surg1989; 124: 1338-1341.
- 6. West KW, Rescorla FJ, Scherer LR III, Grosfeld JL. Diagnosis and treatment of symptomatic breast masses in the pediatric population. J Pediatr Surg 1995; 30:182-187.
- 7. Garcia CJ, Espinoza A, Dinamarca V, et al. Breast US in children and adolescents.Radiographics2000; 20:1605-1612.
- 8. Kronemever KA, Rhee K, Siegel MJ, Sievert L, Hildeboldt CF. Gray scale sonography of breast masses in adolescent girls. J Ultrasound Med 2001; 20:491-496.
- 9. Simmons PS. Breast disorders in adolescent females. Curr Opin Obstet Gynecol 2001; 13:459-61.
- 10. Templeman C, Hertweck SP. Breast disorders in the pediatric and adolescent patient. Obstet Gynecol Clin NORTH Am 2000; 27:19-34.
- 11. Laufer MR, Goldstein DP. The breast: examination and lesions. In: Emans SJ, Laufer MR, Gold stein DP, editors. Pediatric and Adolescent Gynecology. 5th ed. Philadelphia (PA): Lippincott Williams &Wilkins; 2005. P.729-59.
- 12. Ulitzsch D, Nyman MK, Carlson RA. Breast abscess in lactating women: US-guided treatment. Radiology.Sep2004; 232(3):904-9.
- 13. Christensen A F, AL- Suliman N, Nielsen KR, et al. Ultrasound-guided drainage of breast abscesses: results in 151 patients. Br J Radiol.Mar2005; 78(927):186-8.
- 14. Stricker T, Navratil F, Forster I, Hurlimann R, Sennhauser F H. Nonpuerperal mastitis in adolescents. Pediatr. Feb 2006; 148(2):278-81.
- 15. Haagensen CD. Breasts. In: Rubin A, ed. Hand book of congenital Malformation. Philadelphia, Pa: WB Saunders Co; 1967:15-18.

ORIGINAL ARTICLE

AUTHORS:

- 1. Dipali Prasad
- 2. Kalpana Singh
- 3. Sangeeta Pankaj
- 4. Manoj Kumar
- 5. Vijayanand Choudary

PARTICULARS OF CONTRIBUTORS:

- 1. Senior Resident, Department of Reproductive Biology, Indira Gandhi Institute of Medical Sciences, Patna.
- 2. Assistant Professor, Department of Reproductive Biology, Indira Gandhi Institute of Medical Sciences, Patna.
- 3. Assistant Professor, Department of Gynaecological Oncology, RCC, Indira Gandhi Institute of Medical Sciences, Patna.

- Ex. Senior Resident, Department of Gynaecology, Indira Gandhi Institute of Medical Sciences, Patna.
- 5. Assistant Professor, Department of Pathology, Indira Gandhi Institute of Medical Sciences, Patna.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Sangeeta Pankaj, Assistant Professor, Gynaecological Oncology, RCC, IGIMS. E-mail: sangeetapankaj@yahoo.co.in

> Date of Submission: 01/03/2014. Date of Peer Review: 03/03/2014. Date of Acceptance: 12/03/2014. Date of Publishing: 21/03/2014.