

Breast fibroadenoma in teenage females

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SUMMARY: Onuigbo W. Breast fibroadenoma in teenage females. Turk J Pediatr 2003; 45: 326-328.

Over a period of 30 years, the author received surgical specimens of fibroadenoma from doctors who had operated on 530 teenage females of the Igbo ethnic group, who inhabit southeastern Nigeria, West Africa. The peak age was 18 years. The right breast (51.3%) was involved more often than the left (48.7%). There were 58 bilateral cases, i.e., 10.9% of the entire series. Seven teenagers had undergone previous operations for fibroadenoma and five growths were infarcted. The teenagers showed awareness of breast disease as manifested by (a) rising incidence trend during the 1970s, 1980s, and 1990s, (b) little delay in presenting for treatment and (c) smallness of the excised tumors.

Key words: teenage, mammary fibroadenoma, Igbos of Nigeria.

Pediatric tumors are of great interest. Thus, this Journal¹ reported in 1986 a 14-year-old girl who presented with malignant cystosarcoma phyllodes. Her growth was described as "a combined fibroepithelial tumor in which the mesenchymal or stromal component is more hypercellular than in the usual fibroadenoma".

Concerning the usual fibroadenoma, the British Medical Journal presented two authoritative editorials not long ago. First, in 1976², it focused on carcinoma as the most important disease of the breast, but directed attention to the much more frequent problem of benign proliferative lesions of this organ, including presentation from time to time in adolescent girls. Secondly, in 1978³, the following was written:

Public awareness of breast cancer has been heightened recently, largely through popular journalism, and in consequence a steady trickle of frightened young girls are attending surgical outpatient and specialist breast clinics. Many of them have cyclical mastalgia, nodularity, or asymmetry, but a small proportion will indeed present with breast lumps. How should doctors manage these breast lumps in teenage girls, and are they ever any cause for concern?

This question is answered with data derived from a West African community, from which I have published previously on adolescent breast masses⁴.

Material and Methods

From 20 February 1970 to 19 February 2000, the author received surgical specimens from numerous doctors working in several hospitals serving the Igbos or Ibos⁵, who constitute one of the three main ethnic groups in Nigeria, West Africa. In this community, surgical operations were routinely carried out on all breast masses on presentation. The specimens were preserved in formol-saline and sent to me at Enugu, the then capital of the Eastern Region, where the Reference Pathology Laboratory was situated. My laboratory reports contained the clinical details supplied by those sending the specimen, as well as my naked eye and microscopical observations. The relevant parameters were analyzed with special reference to teenage fibroadenoma of the breast.

Results

During the 30-year period, the breast cohort included 215 cases of abscess and 1,308 cases of cancer. Fibroadenoma of the breast was diagnosed in 530 teenage females Table I shows that the peak age was 18 years.

Table I. Number of Patients According to Teen Years

Age (yr)	13	14	15	16	17	18	19	Total
Number	11	19	54	61	97	155	133	530

As the series falls broadly into the decades of the 1970s, 1980s, and 1990s, the time trends in terms of total cases, respectively, were as follows: 43, 186, and 301.

Table II reveals the distribution pattern according to the delay before presentation for treatment.

Table II. Number of Patients According to Delay in Presentation

Duration (yr)	½	1	2	3	4	5+	Unstated
Number	311	113	38	18	6	12	32

The clinician's impression of the lesion was most commonly that of "lump" in 409 (78.7%) cases, followed by "mass" in 50 (9.6%), "swelling" in 47 (9.0%), "tumor" in 8 (1.5%), and miscellaneous in 6 (1.1%), while no indication was given in the remaining 10 patients.

There was no mention of the side involved in 22 patients of the 472 unilateral cases. Of the remaining 450 patients, the right breast was involved in 231 patients (51.3%), and the left in 219 (48.7%). Altogether, there were 58 bilateral cases, i.e., 10.9% of the entire series.

Laboratory measurements were carried out in all but nine specimens. The distribution pattern in the remaining 521 patients is shown in Table III. The largest lesion was 25 cm in diameter.

Certain miscellaneous observations were recorded. Seven teenagers (1.3%) had undergone previous excision for fibroadenoma.

Table III. Number of Patients According to Size of Lesion

Size (cm)	1	2	3	4	5	6	7	8	9	10	11*	Unstated
Number	21	122	132	116	46	29	16	9	8	5	17	9

The giant form of fibroadenoma occurred five times. There were also five cases of infarction of the tumor at the ages of 13, 14, 15, 17 and 19 years. There were interesting single cases, e.g., a sister being involved contemporaneously, the lesion appearing before menarche, and appearance during the first pregnancy.

Discussion

Evaluation of breast masses in young women is a well known problem. At the Emory University School of Medicine in Atlanta, Ferguson and Powell⁶ studied 128 patients

under 20 years who underwent breast biopsy and found 70.2% to be suffering from fibroadenoma. From another American Medical School, Stone⁷ and colleagues (a) obtained data from which 77 teenagers (72% of the series) were found to have fibroadenoma and (b) discovered that its incidence was greatest in late adolescence, namely 19 years.

According to a European series⁸, patients having fibroadenoma were distributed by age as follows: 15 years, 4 patients; 16 years, 4 patients; 17 years, 5 patients; 18 years, 6 patients; and 19 years, 8 patients. It was thus concluded that the incidence of fibroadenoma increases with age. In another European series⁹, concerning the spectrum of breast biopsies in surgical outpatient practice, it was found that the youngest patient with fibroadenoma was aged 14 years.

As Table I shows, the girls aged 13 years constituted the smallest cohort. The peak age was not as found in the American series⁷ and in the English series⁸ at 19 years, but among those aged 18 years.

Elsewhere¹⁰, I showed that Igbo patients manifest awareness of acute appendicitis. This is true also of breast disease. This explains presentation within six months of noticing the lump (Table II) as well as smallness of the lesions reported by the patients (Table III). In addition to the urgency reportedly shown by the adolescents³, Jennifer Hughes¹¹ and her colleagues highlighted the depression and social stress experienced in general by patients suffering from

benign breast disease. Consequently, the populace should be advised that breast cancer is rare in teenagers. In fact, there was only one case of it in the present series.

Finally, as regards infarction of the breast, Lucye¹² reported on five cases and reviewed 13 cases culled from the American and British literature, all these cases being associated with pregnancy or lactation. However, he also referred to the occurrence of such infarcts within fibroadenomata of the breast. Therefore, the five cases that occurred in the Igbos add to the literature.

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