

Breast disease in young West Indian women: an analysis of 1051 consecutive cases

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Summary: Our analysis of 1051 breast biopsies in West Indian women under the age of 30 y revealed that 99% of the breast lumps were benign. Fibroadenoma was the commonest (67%) lesion and there was a steady increase in the frequency of fibrocystic disease with age. Carcinoma in this group is therefore rare. Thus most patients can be reassured with certainty of their benign disease and have biopsy at a convenient time.

Introduction

Breast cancer is the most common malignant disease and is the leading cause of death from cancer in women (Waterhouse *et al.*, 1982). Since the presence of any breast mass raises the question of carcinoma, many young women are concerned about lumps in their breasts. We reviewed our experience with breast biopsies in young West Indian women in Trinidad in order to determine the pattern of breast disease in women under 30 years of age.

Patients and methods

A consecutive group of breast biopsies in women, predominantly Negro (43%) and Indian (41%) with less than 1% whites, under 30 years of age, seen at Port of Spain General Hospital, Trinidad, over a period of 6 y (1976-81) formed the basis of this study. The relevant details were noted from the patient's charts and pathology files. All histological sections from these cases were re-examined.

Results

During the study period 2,256 diagnostic breast biopsies were performed. Of these 1051 (47%) were in women under 30 years of age. The age distribution and histological diagnoses of the breast lesions are shown in Table I. The youngest patient was 11 y and the majority were between 16 and 25 y.

The commonest presenting complaint was a pain-

less mass. The masses had been present 1-60 months (mean 14 months) before medical consultation. There was no difference in the side of involvement (left breast 48% and right breast 47%) and bilaterality was noted in 5% of the cases.

Fibroadenoma was the most common histological diagnosis (67%). The age range was 11-30 y with a peak in the 16-20 y age group. The occurrence of fibroadenoma decreased with age. They were classical fibroadenoma histologically. Cysts and apocrine metaplasia were seen in 15% of these cases and epithelial hyperplasia in 8%. Infarction of fibroadenoma was seen in 8 cases.

Fibrocystic disease was the next commonest condition (29%). The age range was 14-30 y and the frequency of fibrocystic disease increased with age. The major histological components were cysts, duct ectasia, apocrine metaplasia and periductal mastitis. Sclerosing adenosis was seen in 3% of these cases; ductal and lobular hyperplasia was seen in 10% and 2% respectively.

Carcinoma was seen in 12 (1.1%) cases. The young-

Table I Age distribution and histological diagnoses of 1051 breast lesions

	Age group in years				n	%
	11-15	16-20	21-25	26-30		
Fibroadenoma	70	349	193	92	704	67
Fibrocystic	27	73	103	103	306	29
Abscesses	5	7	3	10	25	2.4
Carcinoma	—	—	2	10	12	1.1
Fat necrosis	—	—	1	1	2	
Granular cell tumour	—	1	1	—	2	

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gest patient was 23 y and the majority were over the age of 26 y. Seven patients had infiltrating ductal carcinomas with regional lymph-node involvement. Two were circumscribed infiltrating ductal carcinomas, two intraductal carcinomas, and one Bowen's disease with infiltrating ductal carcinoma.

The other mammary diseases in this age group were non-specific abscesses in 25 (2.4%), fat necrosis (2) and granular cell tumour (2).

Discussion

There is a general agreement in clinical and epidemiological publications concerning the age distribution of benign breast disease. Fibroadenomas occur at an earlier age, whereas fibrocystic disease is found to increase with age (Cole *et al.*, 1978). Fibroadenoma of the breast as a disease of youth is the most frequent tumour in young women under the age of 25 y (Haagensen, 1971; Nigro & Organ, 1976; Oluwole & Freeman, 1979; Ligon *et al.*, 1980). The gross and microscopic features of fibroadenoma are usually characteristic. However, infarction occurring in a fibroadenoma can be clinically mistaken for carcinoma (Robitaille *et al.*, 1974). An awareness of this infrequent complication will avoid unnecessary mastectomy. Since the epithelial component of fibroadenoma is presumably subject to the same biological stimuli as the breast epithelium in general, carcinoma might originate occasionally within fibroadenoma (Haagensen, 1971). None of our cases showed evidence of carcinoma, although epithelial

hyperplasia was observed in 8% of fibroadenomas.

Fibrocystic disease of the breast is seen most frequently between 25 and 45 years of age (Oluwole & Freeman, 1979; Ackerman, 1974). Certain epithelial proliferations in fibrocystic disease have been associated with an increased risk for the development of breast cancer (Ernster, 1981; Schuerch *et al.*, 1982). In our study there is a steady increase in the frequency of fibrocystic disease with age and epithelial hyperplasia was seen in 10% of the cases.

Carcinoma of the breast under the age of 30 y is rare (Taasdale & Baum, 1976; Logan, 1978). However, Purandare & Finbow (1978) quote an incidence of 5.1%. Ligon *et al.* (1980) noted 2% of breast cancer in their study of breast masses in women under the age of 30. In a predominantly white population, of 1,000 consecutive referrals with breast complaints to out-patients' clinic, no patient under the age of 27 had carcinoma (Ellis & Cox, 1984). In our study, 1% of breast disease in this age group was carcinoma and none occurred in a woman under 23 years of age.

However, other conditions may mimic carcinoma. Though suppurative mastitis is becoming less common, a localized abscess may resemble carcinoma clinically (Ackerman, 1974). Granular cell tumours may be mistaken for cancer in clinical, mammographic and naked eye appearances, but these rare neoplasms have characteristic histological features (McCracken *et al.*, 1979). Although the chance of a breast lump being a carcinoma in this age group is only in the region of 1% only urgent biopsy can make this diagnosis. Thus, every woman with a discrete breast mass, regardless of age, warrants early investigation.

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