

# Benign breast disease in a West Indian population

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*A review of 1726 breast lesions in West Indian women from Trinidad showed that the pattern of disease is significantly different from that reported in whites but similar to reports from India and Africa. This difference is mainly due to the high frequency of fibro-adenoma in our adolescent women. Fibro-adenoma was the commonest lesion (39.3 per cent), followed by mammary dysplasia (32 per cent) and carcinoma (21 per cent). Although carcinoma comprised only 21 per cent of all breast lesions, nearly 40 per cent of true neoplasms were malignant. We believe all suspicious breast lumps in black women need biopsy and further analysis of morphological components of benign breast lesions is necessary to evaluate precursors to cancer of the breast.*

**Keywords:** Breast neoplasms, fibrocystic disease

Public awareness of breast cancer, one of the commonest malignancies of women, has increased recently through popular journals. Benign breast disease is also important, however, since the presence of a breast mass raises the possibility of cancer and also because certain epithelial lesions in benign breast disease have been associated with an increased risk of malignant change. This study evaluates the relative frequency of benign breast lesions in a hospital serving a West Indian population of predominantly African and Indian descent.

## Materials and methods

The surgical pathology records of the Port-of-Spain General Hospital, Trinidad, were reviewed for the 5 year period January 1976 to December 1980. All women patients who had diagnostic breast biopsies were included in this series. Fibro-adenosis, chronic mastitis, duct ectasia and cysts were included under mammary dysplasia.

## Results

Of 28 224 pathology specimens examined during the 5 year period, 1726 (6.1 per cent) were from the female breast. During this same time 2160 women were seen with breast pathology in the surgical clinics. All fibro-adenomas were excised. One thousand three hundred and sixty-two of excised or biopsied breast lesions were benign while 21 per cent (364) were malignant. The histological diagnosis in these cases are shown in Table 1.

Fibro-adenoma was the commonest lesion, accounting for 49.8 per cent of benign and 39.3 per cent of all breast biopsies. This was followed in frequency by mammary dysplasia (32 per cent) and carcinoma (21 per cent). The other major benign lesions were abscesses, duct papilloma and fat necrosis.

However, if the adolescent patients (under 20 years) are excluded, the pattern of breast disease becomes different as mammary dysplasia replaces fibro-adenoma as the commonest lesion (Table 2).

The age distribution for benign breast lesions is shown in Table 3.

The peak incidence for all benign breast disease is 16-35 years. However, the peak occurrence of fibro-adenoma is at 16-25 years while that for mammary dysplasia is 21-50 years.

## Clinical data

The most common presentation of benign lesions was a lump in the breast. These varied in size from 0.5-18 cm. Eight per cent of these patients had a nipple discharge while 15 per cent presented with pain. The breast mass had been present from a week to a few years before biopsy was performed. There was no significant difference in the side of involvement; right breast

47 per cent, left 45 per cent, bilateral 8 per cent. Multiple lesions were seen in 20 patients with benign breast disease.

## Discussion

As in our study, it is well documented that fibro-adenoma is the most common benign breast lesion in blacks<sup>1-3</sup>. In India, fibro-adenoma is also the most common benign breast lesion<sup>4</sup>. In Trinidad, with a population 43 per cent black, 41 per cent Indian and 16 per cent mixed, the relative frequency of benign breast lesions is similar to that seen in both India and Africa.

However, the order of occurrence of breast lesions in white populations is fibrocystic disease, cancer and fibro-adenoma<sup>5-7</sup>. If adolescent patients are excluded from our study, the pattern of breast lesions becomes similar to the white population. Unfortunately, our population of West Indian whites is extremely small (less than 1 per cent) and no meaningful comparison can be made with this group. However, it is our

**Table 1** Distribution of breast lesions by histological type

Histological diagnosis	Number	Percentage of all lesions	Percentage of benign disease
Fibro-adenoma	679	39.3	49.8
Mammary dysplasia	552	31.9	40.5
Cancer	364	21.0	—
Abscess	76	4.4	5.5
Duct papilloma	13	0.7	0.9
Fat necrosis	16	0.9	1.1
Sclerosing adenosis	8	0.5	0.6
Granular cell tumour	4	0.2	0.3
Others	12	0.7	0.9

**Table 2** Distribution of breast lesions excluding adolescent patients

Histological diagnosis	Number	Percentage of all lesions	Percentage of benign disease
Mammary dysplasia	475	36.6	50.9
Carcinoma	364	28.0	—
Fibro-adenoma	339	26.1	36.4
Abscesses	66	5.0	7.0
Duct papilloma	11	0.8	1.1
Fat necrosis	16	1.2	1.7
Others	25	1.9	2.7

Table 3 Age distribution of benign breast lesions

Age (years)	All benign lesions	Fibro-adenoma	Mammary dysplasia
15	86	61	22
16-20	344	279	55
21-25	343	159	76
26-30	155	72	66
31-35	117	45	63
36-40	102	29	63
41-45	94	21	62
46-50	94	10	71
51-55	56	1	37
56-60	38	1	20
61-65	11	1	4
66-70	18	0	11
71+	4	0	2

impression that fibro-adenosis is much more common than fibro-adenoma in the Trinidadian white. The peak age incidence for benign breast disease in our population is 16-35 years while it is 30-49 years for white populations<sup>6</sup>. It seems therefore that the two major differences between our population and the white populations, namely, our younger peak age incidence and our higher incidence of fibro-adenomas can both be explained by the very high incidence of fibro-adenomas in our adolescent females (compared with a white population). Our finding of a peak

incidence of fibro-adenomas at age 16-25 has been documented in both Africa and India<sup>2,4,8</sup>. Fibrocystic disease is frequent between ages 20-50 years in our population as well as in women of both black and white races<sup>9,10</sup>.

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