LETTER TO THE EDITOR

An Analysis of Benign Breast Disease and Ethnicity in Trinidad: Is There a Link?

To the Editor:

The epidemiology of benign breast disease has been researched extensively in all parts of the globe. It is well known, that the most common pathology of benign disease is the fibroadenoma in young females of African descent (1–4). However, a search of the literature reveals a paucity of data on the comparison of type of benign breast disease and ethnicity, since most countries do not have the diverse racial mixture that we possess in Trinidad and Tobago for the purpose of comparing the data with similar environmental factors, hence, the reason for exploring this topic in our setting.

A retrospective analysis of 390 benign breast lesions was performed at the General Hospital, Port-of-Spain, Trinidad. Permission was granted by the General Hospital Port-of-Spain ethical committee. Histology records were examined over a 2-year period, focusing on age, type of benign lesion, and ethnicity. Ethnicity was divided into the main groups in our population in Trinidad, which includes women of African descent, East Indian descent and mixed races. The analysis of the data focused on age distribution of disease and the group affected. The histology was grouped as follows: fibroadenomas, mammary dysplasia (fibroadenosis, fibrosis, duct ectasia), intraductal papilloma, lipoma, atypical phyllodes and others, which consisted of cutaneous lesions and fat.

Trinidad has a population of approximately 1.3 million people with the General Hospital, Port-of-Spain serving approximately 700,000 persons. The racial mixture of this island is unique, in that there are almost equal numbers of persons of African descent (43%) and East Indian descent (41%); with mixed races accounting for about 15% and <1% consisting of Caucasians, Chinese and Arabs. Hence, it is a good setting for analyzing and comparing the data for the two main groups to detect any difference in the expression of benign breast disease between Indians and Africans. The most recent data on benign breast disease in blacks are from African teenagers in Nigeria in 2001 (3), African-American teenagers in 1999 (5) and Afro-Caribbean women in Jamaica in 2001 (6). All these studies confirm the fibroadenoma as the black teenage breast lump. The data out of Jamaica (6) show, similar values to our Afro-Caribbean population in Trinidad in terms of the percentage of mammary dysplasia (41% and 45%, respectively) and fibroadenomas (33% and 32%, respectively). In terms of the East Indian data, a study carried out in 1995 (7), shows that of 1,528 benign breast lesions 62% were due to fibroadenomas, 25% to fibrocystic disease, and the remainder due to inflammatory lesions and tuberculosis. The main previous study in 1983 (8) also supports this data. Our data of the East Indian population shows, that of this group 36% of the lesions are due to fibroadenomas and 37% to mammary dysplasia. This contrasts with the data published in India.

Our analysis of 390 case notes reveals that 76% of benign breast disease in Trinidad to be due to fibroadenomas (34%) and mammary dysplasia (42%). The remaining 24% consist of abscesses, intraductal papillomas, lipomas, cutaneous lesions, and atypical phyllodes tumors. Overall, 52% of lumps occurred in blacks compared with 38% in Indians and 10% in mixed races, this represents the population that this hospital usually serves. There were no significant racial differences in the distribution of disease; that is of all fibroadenomas 50% occurred in blacks and 41% occurred in Indians and in the case of mammary dysplasia 32% occurred in blacks and 36% occurred in Indians (Table 1). The peak age group for fibroadenomas was in the 15–20 age group (45% of fibroadenoma cases) and for mammary dysplasia it was the 21–50 age group (77% of mammary dysplasia cases) (Table 2). The distribution was similar in both blacks and Indians. This data are original, in the sense that the distribution of disease in relation to ethnicity

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Table 1. Distribution of Lump Histology in Relation to Ethnicity

Histological diagnosis	Afro-Caribbean	Indian-Caribbean	Mixed	Total
Fibroadenoma	66 of 132 (50%) 66 of 203 (32%)	54 of 132 (41%) 54 of 149 (36%)	12 of 132 (9%) 12 of 38 (32%)	**132 (34%)**
Mammary dysplasia	91 of 164 (55%) 91 of 203 (45%)	55 of 164 (33%) 55 of 149 (37%)	18 of 164 (11%) 18 of 38 (47%)	**164 (42%)**
Abscess	6	9	1	16 (4%)
Intraductal papilloma	7	1	2	10 (2%)
Lipoma	4	10	1	15 (4%)
Atypical phyllodes	7	15	0	22 (6%)
Others	22	5	4	31 (8%)
Total	203 (52%)	149 (38%)	38 (10%)	390

Table 2. Age Distribution of the Main Benign Breast Lesions

Age (years)	Fibroadenoma (132 cases)	Mammary dysplasia (164 cases)
11–14	8 (6%)	7 (4%)
15–20	59 (45%)	13 (8%)
21–30	33 (25%)	46 (28%)
31–40	21 (16%)	43 (26%)
41–50	4 (3%)	38 (23%)
51–60	2 (1%)	14 (9%)
61+	5 (4%)	3 (2%)

was analyzed due to our population mixture with results that are comparable with the world literature from Africa, India, United States of America and Jamaica with some small variants such as a lower incidence of fibroadenomas in our East Indian population as compared with India.

We conclude that, the fibroadenoma remains the black teenage breast lump and add that it is also the most common breast lump of the teenage girl of East Indian descent. There are no significant racial differences in the distribution of disease in our population.

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