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BREAST CANCER IN WEST INDIAN WOMEN IN TRINIDAD

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Abstract. A retrospective review of breast cancer in West Indian women in Trinidad is presented. Breast cancer constituted 17% of all cancers diagnosed and represented 26% of all cancers in females. The usual presenting symptom was a painless lump. The right breast and the upper outer quadrant were the common site of cancer. 85% of the patients were multiparous with an average of 4 children and 92% of them breast fed. Most patients presented in stage I disease, but a significant number of cases were in an advanced stage of the disease. Infiltrating duct carcinoma was the most frequent histological diagnosis and lobular carcinoma was seen in 1% of the cases.

Key words: Breast cancer; Trinidad

Introduction

Breast cancer is the commonest cancer in women and in line with its importance, there have been a number of epidemiologic studies. There are however, large differences between different parts of the world in the incidence of breast cancer [1]. Although the explanation for these international differences could be genetic, migration studies suggest that environmental factors have more influence in the development of breast cancer [2]. Much is known of the epidemiology of breast cancer among Caucasians, but little is known about the disease among Asians and Blacks. The international incidence figures published by the World Health Organization [1] show that the population of Asia and West Indies have lower incidence rates compared with Europeans. As a preliminary study, we have reviewed the female breast cancer cases among the Negroe (43%) and Indian (41%) population with less than 1% Whites in Trinidad, West Indies.

Methods and Materials

A retrospective study was conducted on female breast cancer for the 5-year period (January, 1976 to December, 1980) at Port-of-Spain General Hospital, Trinidad. All the patient's charts and histology reports were reviewed and the data was analysed.

Results

The average number of breast cancer cases seen each year was 72 and the total number of cases over the study period (1976-80) was 363. Breast cancer constituted 17% of all cancers diagnosed and represented 26% of all cancers in females.

Incidence

In Trinidad, as in many developing countries, there is a lack of full statistical information on many diseases and this causes difficulty in assessing the true incidence of breast cancer. Based on the estimated population served by this hospital (342500 females of all ages), the crude annual incidence rate of breast cancer was 21 per 100,000 females. The age standardized incidence rate of breast cancer in Trinidad is 28 per 100,000 females per annum.

Clinical data

The age range of the patients was 23-92 years and the majority were over the age of 50 years (*table 1*). The usual presenting symptom was a painless lump (80%) and the less common symptoms were pain and nipple discharge. The duration of symptoms varied from 1 week to 3 years with a mean of about 13 months. The right breast was involved in 53% of the cases and the left breast in 47%. The upper outer quadrant (41%) was the common site of breast cancer followed by central (22%), upper inner quadrant (18%) and lower inner quadrant (11%). The lower outer quadrant (8%) was the least common site. The parity and the lactational history of these patients showed that 15% were nulliparous; the other 85% had 1 to 15 children with an average of 4 and 92% of them breast fed. The age at first birth ranged from 14 to 36 years with an average of 21.6 years; 70% were under the age of 25 at first birth.

Clinical staging

The Manchester system of grading was used. Most of the patients presented with stage I disease (51%), but a significant number of cases were in stage II (34%) and stage III (10%). Only 5% were in stage IV disease.

Histological diagnoses

The most common histological diagnosis was infiltrating duct carcinoma (76.5%), while variants such as medullary, mucoid and others were less common (*table 2*). Lobular carcinoma was seen in only one per cent of cases.

Table 1. Age specific incidence rate of breast cancer in Trinidad

<i>Age group</i>	<i>Number of cases</i>	<i>Age specific rate per 100,000/year</i>
20-24	2	1
25-29	7	5
30-34	22	19
35-39	20	22
40-44	38	50
45-49	25	38
50-54	49	84
55-59	50	101
60-64	43	101
65-69	36	87
70-74	37	133
75-79	16	85
80+	18	105

Table 2. Histological type of breast cancer (363 cases) in Trinidad

<i>Tumour type</i>	<i>No. of cases</i>	<i>Percentage</i>
Intraductal carcinoma	8	2.2
Infiltrating duct carcinoma -		
Usual type (Not otherwise specified)	278	76.5
Scirrhou	26	7.0
Medullary	10	2.7
Circumscribed	10	2.7
Colloid	6	1.6
Papillary	5	1.3
Paget's disease	5	1.3
Anaplastic	4	1.1
Comedo	3	0.8
Adenoid cystic	2	0.5
Infiltrating lobular carcinoma	4	1.1
Malignant Phyllodes tumour	1	0.2
Leiomyosarcoma	1	0.2

Discussion

In our review of breast lesions in West Indian women in Trinidad, carcinoma of the breast was seen in 21% of all lesions and nearly 40% of true neoplasms were malignant [3]. The age adjusted incidence rate of breast cancer in Trinidad is 28/100,000/year and this is the second most common cancer closely following the cancer of the uterine cervix. The incidence rates of breast cancer have been known to vary with population and geography. The rates in North America and Northern Europe are 5-6 times higher than in Asia and Africa [1]. These differences are probably not genetic, but environmental [2]. Various studies on risk factors for breast cancer suggest that it is likely to be multifactorial in origin [4, 5]. Kalache [6] has provided an exhaustive summary of the epidemiological literature on risk factors for breast cancer and points out the areas needing urgent investigation.

The age distribution of patients with breast cancer recorded in our study is similar to reported series [7-8]. The youngest patient with breast cancer was 23 years of age. Carcinoma of the breast under 20 years was not recorded in our population [9]. The age specific incidence rates of breast cancer in our study shows a steady increase from 25-years, a slight drop around 50 years and an increase over the age of 50 years. These bimodal age specific incidence rates have been observed in some studies indicating a change in exposure to carcinogenic agents [10, 11]. However, MacMohan [12] considered this to be possibly an artifact.

It has been well documented as in our study that infiltrating duct carcinoma is the predominant histological type [7, 8, 13]. While variants such as medullary, mucoid and others are less common and have been shown to have a better prognosis than invasive ductal carcinomas [8]. It is unfortunate that we have a smaller number of patients with these variants. The Japanese women with breast cancer seem to have higher proportion of these variants and should therefore have better survival results [14]. One type of breast cancer that has been attracting considerable attention in recent years is the lobular carcinoma and the true incidence of this cancer is uncertain. One percent of breast cancer in our study is lobular carcinoma.

Trinidad and Tobago, with its population of different ethnic groups and cultures, provides an excellent opportunity to study the epidemiology of breast cancer. We hope this retrospective review might help the investigators to embark on prospective research on breast cancer in this country to identify the possible aetiological factors.

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