

Breast cancer in Hadhramout Sector - Yemen

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Abstract

Objective: To describe the pattern and distribution of breast cancer among patients registered at Hadhramout Cancer Centre in Al-Mukalla city.

Patients and Methods: This study was conducted retrospectively to describe the pattern and distribution of breast cancer among registered cases at the Hadhramout Cancer Centre, in Al-Mukalla, for the period from January 2006 to December 2011. Data was collected using Can-Reg program and statistically analyzed via SPSS program version 18 for age, sex, residence, breast affected and the histology.

Results: The study included 494 patients with breast cancer, 483 were females (97.7%) and 11 were males (2%), with male to female ratio of 2:1. The mean age was 48.87 years (range:40-60 years). 123 (24.8%) of the females were below the age of 40, 28 cases (5.6%) below the age of 30 while all the males were above 40 years. Most of the cases (84.4%) were confirmed histopathologically. The most common histopathological type was the Infiltrating ductal carcinoma (47.5%).

Conclusions: The main histopathological type was infiltrating ductal carcinoma. About 25% of the patients were below the age of 40. Our results generally indicate that the pattern of our cases bear similarities with the Arab' data with some differences from the other parts of Yemen that necessitate further evaluation.

Key words: Breast cancer, Hadhramout, Yemen

Introduction

Breast cancer is an insidious disease that may be present and may develop over many years without signs or symptoms of any kind. In 2000, the worldwide incidence of breast cancer was estimated to be 833 661 new cases per year, and about 376 611 died from the disease [1]. Breast cancer was third in frequency when both sexes were considered together and by far the most prevalent cancer in women. The incidence rates are increasing in all countries with available statistics, and the impact of the disease is magnified because women are at risk from their late thirties.

Breast cancer is the most frequently diagnosed cancer in American women, and the second most frequent cause of cancer death [2]. Studies that focused on cancer in the United States between 1988 and 1990 documented that the lifetime risk of developing breast cancer in women was 12.2% or 1 in 8 [3]. In 2001, there were approximately 193 700 new cases and 40 000 deaths from breast cancer in the United States [4]. These numbers are too large to comprehend but they break down into one newly diagnosed breast cancer case every 3 minutes and one death from breast cancer every 13 minutes.

The natural history of breast cancer is characterized by long duration and heterogeneity among patients. Currently about half of the patients registered in American cancer centers with a diagnosis of breast cancer can be expected to live out the rest of their lives without recurrence and one-third will die of their disease, but there is no time point at which patients can be completely reassured [5].

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Methods

This study was conducted retrospectively to describe the pattern and distribution of breast cancer among registered cases at the Hadhramout Cancer Centre, in Al-Mukalla, for the period from January 2006 to December 2011. Data was collected using Can-Reg program and statistically analyzed via SPSS program version 18 for age, sex, residence, breast affected and the histology. Hadhramout Cancer Registry started to function as a population based registry in 2006 and it covers three governorates in the country (Hadhramout, Shabwah, and Almahrah). The data analyzed included age, sex, residence, and histopathology.

Results

There were 494 patients with breast cancer registered between January 2006 and December 2011; 483 were females and 11 were males. The main histopathology was infiltrating ductal carcinoma (47.5) (Table 1).

Table 1 Distribution of 171 completed breast cancer cases according to type of cancer

Type of cancer	No. of patients	%
<i>Infiltrating ductal carcinoma</i>	92	47.5
<i>Infiltrating lobular carcinoma</i>	5	2.6
<i>Intraductal papillary carcinoma</i>	4	2.0
<i>Infiltrating ductal & lobular carcinoma</i>	1	0.5
<i>sarcoma</i>	2	1.0
<i>Adenocarcinoma</i>	3	1.6
<i>Medullary carcinoma</i>	3	1.6
<i>Adenoid cystic carcinoma</i>	1	0.5
<i>Carcinoma NOS</i>	60	27.9
Total	171	100

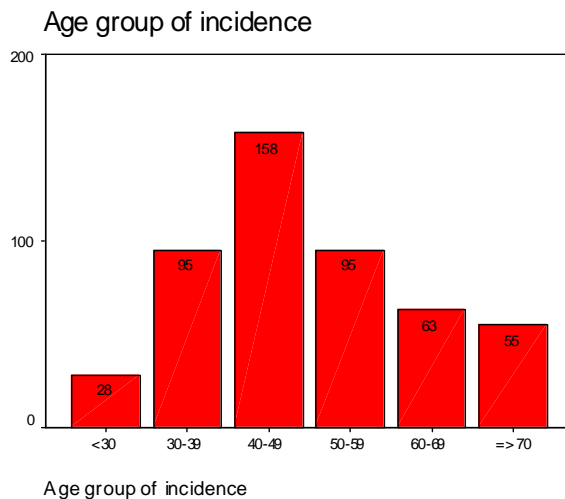
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The highest percentage of cases was in the age group 40–49 years, followed by 30–39 years and 50–59 years (Table 2). 28 patients were less than 30 years, with 56 cases patient above 70 years.

Table 2 and figure “1” Distribution of breast cancer according to age group

Age group (years)	No. of patients	%
<30	28	5.7
30–39	95	19.2
40–49	158	32.0
50–59	95	19.2
60–69	63	12.8
>70	55	11.1
Total	494	100



The results show 96% of the cases was from Hadhramout Governorate, followed by cases from Shabwah and Almahrah (Table 3). This does not reflect the prevalence of breast cancer in these governorates because Hadhramout Cancer Centre not

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only treats cancer patients from Hadhramout Governorate but also some cases referred from peripheral hospitals.

Table 3 Distribution of breast cancer according to area of residency

<i>Governorate</i>	<i>No. of patients</i>	<i>%</i>
<i>Hadhramout</i>	<i>467</i>	<i>96.0</i>
<i>Shabwah</i>	<i>17</i>	<i>3.4</i>
<i>Almahrah</i>	<i>8</i>	<i>1.6</i>
<i>Abyan</i>	<i>1</i>	<i>0.2</i>
<i>Total</i>	<i>494</i>	<i>100</i>

Discussion

Cancer registry statistics on cancer in Yemeni women are poor or nonexistent. However, a study on cancer cases in south-eastern Republic of Yemen during the period 1989–93 showed that breast cancer was the most common malignancy in women [6]. This study was undertaken in an effort to confirm the hypothesis that cases of breast cancer in the country may not be identified until the disease is in the late stages or after metastasis has occurred and hence indicate the need for early diagnosis and treatment.

Infiltrating ductal carcinoma constituted 47.5% of the breast cancer cases, which is similar to the global prevalence [6]. No cases of carcinoma in situ reflect the late diagnosis of breast cancer in the Republic of Yemen, contrasted with Europe and the United States, where there are developed programs for early detection of breast cancer.

In our study, the female to male ratio of cases was 113:1; the reported ratios elsewhere vary from 200:1 to 100:1.

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The age group involved in our country is younger than in Europe and the United States. The most common age group in which the disease was diagnosed was women in the fourth decade (32%), followed by women in the third decade (19.2%) and fifth decade (19.2%). The mean age at diagnosis in European women is reported to vary from 63 years (England) to 57 years (Estonia) [8]. In the United States, 60% of cases of breast cancer are diagnosed in women over 60 years [9]. This percentage is likely to grow, not only because older age is the most important risk factor for breast cancer but because of gains in life expectancy and decreases in deaths due to cardiovascular disease.

Increasing incidence rates of breast cancer were reported in Denmark and Iceland before organized mammography screening was introduced [10]. Studies from the United States [11,12] show declining incidence rates since the late 1980s after several years of extended use of mammography in asymptomatic women. Lower use of mammography screening has been linked to more advanced disease at presentation in low-income women [13]. Not only is more advanced disease less amenable to tissue-sparing surgery, financial constraints tend to result in lower use of breast-conserving surgery.

The factors known to place women at increased risk of breast cancer include previous breast cancer, a strong family history of breast cancer in a premenopausal mother or sister, early onset of menarche, late menopause, and a patient having so-called benign breast disease [14]. There is an increasing awareness of the importance of the period between menarche and the birth of the first child in establishing future risk of breast cancer [15]. Factors such as adolescent nutrition (dietary fat consumption) and regular physical exercise [16] are thought to have an impact

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on later risk of developing breast cancer. Analysis of the prevalence of breast cancer and the risk factors will provide a better estimate and understanding of the increases in breast cancer that are still as yet unexplained.

Hadhramout Cancer Centre, together with other groups such as the hospitals of the Ministry of Public Health and Population, the World Health Organization, the Yemen Women's Centre and international cancer associations are advocating for increased funds for research, both basic and applied and for increased support for early detection of breast (and cervical) carcinoma. This collaborative advocacy brings pressure on the government to address the problem caused by cancer and will foster effective action. What remains clear is that there is an urgent need for a comprehensive national approach to tackle this issue.

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