

The Collection of Epidemiological Data of the Women Undergoing Mammography in Suburban Area of Mersin

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Background: The study aimed to evaluate the epidemiologic data of our patients with mammography examinations, pre-examinations, and evaluation of them.

Materials and Methods: This cross-sectional study was conducted by asking specific questions by face-to-face interviewing 500 female patients who lived in the suburban areas of Mersin between April 2011 and November 2011 and who applied to the maternity branch hospital for mammography surveys. The data are evaluated proportionally; numerical values are given in percent and $n=n1/\text{total number}$.

Results: The majority of the cases (87%, $n=435/500$) consisted of women aged 40-60 years. The majority of cases (80%, $n=400/500$) reported that the education level was primary school graduate or lower. In our patients, 54% ($n=270/500$) had no previous mammography screening, 43% ($n=215/500$) had irregular mammography screening, 3% ($n=15/500$) had a regular mammography scan. 55% ($n=275/500$) did not know what the mammography was and why it was withdrawn; 45% ($n=225/500$) did not know enough. Our cases of 12% ($n=60/500$) had a history of breast cancer in the family.

Conclusion: Collection of epidemiologic data belonging to the patient before the mammography screening will benefit the planning of future surveys, and it is seen that they are also contributing to the reporting of mammography.

Keywords: Mammography, epidemiology, breast cancer, menopause

Introduction

Breast cancer constitutes 25% of cancers in women, and one out of nine women is confronted with breast cancer in one part of their lives (1). The distribution of these women, according to the age group, shows that 85% are over 40 years of age (2). The World Health Organization (WHO) recommends screening mammography for women over 40 years of

age, and screening programs vary from country to country (3). In the United Kingdom (4) the National Health Service Breast Screening Program, (5) the United States Preventive Services Task Force in the United States, Breast Cancer Service in Sweden (6), the country-wide mammography screening breast cancer. These programs demonstrate the usefulness of mammography (4-6). Public Health Agency by

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community-based breast cancer screening program was started to conduct studies in Turkey. Screening mammography has been shown to reduce the incidence of breast cancer and breast cancer mortality in long-term results (7-9). Breast cancer mortality decreases by 24% by screening mammography (10). Also, low-stage disease detection, which leads to less treatment and lower recurrence rates, is essential when evaluating the benefits of mammography screening(2). Periodic screening is not expected to have much impact on the fastest growing cancers, but detection of moderate or even slow-growing cancers saves lives (11, 12).

In this study, we aimed to collect and evaluate the epidemiological data of our cases in the suburban area of Mersin province before the mammography.

Materials and Methods

This cross-sectional study was performed in suburban areas of Mersin province between April 2011, and November 2011 and 500 women who applied for mammography examination to Mersin Woman's and Child Hospital in the region were interviewed face to face and asked specific questions. Our study was conducted according to ethical principles and the Helsinki Declaration of the World Health Organization by obtaining consent form from patients. The patients were informed about mammography procedure.

Data analysis

The data were evaluated proportionally, and numerical values were given as a percentage and $n=n1/\text{total number}$. All analyses were done with SPSS software (version 16.0; SPSS Inc; Chicago, IL, USA).

Results

The majority of our cases (87%, $n=435/500$) consisted of women aged 40-60 years. The mean age was 48.8 years (range, 34.8-70 years). 67% ($n=335/500$) reported that they had entered menopause. The majority of cases (80%, $n=400/500$) reported that the education level was primary school graduate or lower (Table-1).

Table-1. Distribution of the educational status

Education Level Frequency	Frequency (%, n/total number)
Primary and lower	%80 (n=400/500)
Secondary school graduate	%5 (n=25/500)
High school graduate	%9 (n=45/500)
University graduate	%6 (n=30/500)

Our cases were found to be 90% ($n=450/500$) housewife, 7% ($n=35/500$) were employed in a job, 3% ($n=15/500$) were retired. In our patients, 54% ($n=270/500$) had no history of a previous mammography screening, 43% ($n=215/500$) had irregular mammography screening, 3% ($n=15/500$) had a regular mammography (Table-2).

Table-2. Frequency of mammography in our cases

Mammography Frequency	Frequency (%, n / total number)
First time mammography	%54 (n=270/500)
At least once or irregularly	%43 (n=215/500)
Regular mammography follow-up	%3 (n=15/200)

Our patients of 55% ($n=275/500$) did not know what mammography was and why it was withdrawn; 45% ($n=225/500$) did not know enough. Our cases of 53% ($n=265/500$) stated that they did not perform a self-examination.

Our patients of 75% (n: 375/ 500) reported that they did not use cigarettes or alcohol, and the cases of 25% (n: 125/500) reported smoking and 2.2% (n: 11/500) of the cases stated that they used both cigarettes and alcohol. We found that 94% (470/500) of the patients had consulted the doctor for regular or irregular screening mammography and 6% (n: 130/500) of the patients had consulted the physician for a palpable lesion. Our cases of 12% (n: 60/500) had a history of breast cancer in the family (such as mother, sister) (Table-3).

Table-3. Family history in our cases

Family History of Breast Cancer	Frequency (% , n / total number)
Negative breast cancer with a family history	%88 (n=440/500)
Positive breast cancer with a family history	%12 (n=60/500)

Discussion

Every year, breast cancer causes the death of more than 500,000 women worldwide, and breast cancer accounts for 25% of all cancers in women(1,13). Breast cancer can be diagnosed early by a mammography. A breast cancer screening has been shown to reduce the incidence of advanced breast cancer (7). Also, breast cancer mortality has been shown to decrease with this method. The sensitivity of mammography to the detection of breast cancer (77-95%) and specificity (94-97%) was determined (14).

The inadequacy of mammography screening programs has led to the diagnosis of women with breast cancer in the late stages, and it has been found that the five-year survival rate falls to the range of 10-40% (15, 16). In 2014, the World Health Organization prepared guidelines for breast cancer, 40-49 age group, 50-69 age

group, and 70-74 age group (3). Breast cancer-related mortality has been reported to decrease with mammography screening program and is estimated to be 6% for the 40-49 age group, 28% for the 50-59 age group, 34% for the 60-69 age group and 24% for all groups (10). Screening programs start earlier in women with mother or sister breast cancer (1). Self-examination helps diagnose palpable mass (1).

In our study, the majority of our cases 87% (n:435/500) consisted of women between the ages of 40 and 60, and the average age was 48.8 years (range, 34-70 years). The age group of the patients attending our study conforms to the target group determined by the World Health Organization (3). 55% (n:275/500) did not know what mammography was and why it was withdrawn. Our cases of 53% (n:265/500) stated that they did not perform a self-examination. In our patients, 54% (n:270/500) had no previous mammography screening, 43% (n:215/500) had irregular mammography screening, 3%(n:15/500) had a regular graph scan. Coburn et al. (17) achieved a high mammography screening rate in the Rhode Island region and found that regular screening detected smaller and earlier breast cancer. In addition, it has been shown that deaths from breast cancer are decreased by providing more regular follow-up and high reminder rates (18, 19). According to this result, our study showing that screening cannot be performed at appropriate intervals suggests that the possibility of early diagnosis of breast cancer is reduced in our region. In addition, patients' lack of adequate information on mammography screening reduces the likelihood of regular screening. Our patients of 12% (n:60/500) had a history of breast cancer in the family. Patients with familial or genetic predisposition

were found to be 15% to 20% of all breast cancers (20). In women with a high risk of breast cancer, palpation and mammography screening is useful and allows the detection of breast cancer at an early stage when the prognosis is still good (21). Clinical information such as the age of the patient, age of the mammography scan, the presence of late menopause and the presence of palpable mass increase the quality of the evaluation (1) and compare with the previous mammograms.

As a result, collecting the epidemiological data of the patient before the mammography examination would benefit the planning of the radiological evaluation, and it was found to contribute to the reporting of mammography. With the increase in the level of education, it is predicted that the habit of regular mammography control will increase. It was thought that this data would be obtained from each mammography center and sent to a more extensive evaluation center would be useful in planning the national screening programs.

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Conflict of Interests

The author declares no conflict of interest with the present article.

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