PROGNOSTIC AND PREDICTIVE FACTORS OF BREAST CANCER IN A POPULATION OF PATIENTS HOSPITALIZED AT EHU ORAN, YEAR 2021- 2022

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Abstract :

 Female breast cancer is one of the leading causes of death (1). The mortality rate is decreasing with better survival in countries that have adapted a screening program for early diagnosis and, more importantly, adequate management and treatment (1,2). Adherence to treatment should be tailored to each case based on prognostic and predictive factors. This approach reduces the risk of recurrence and mortality from this disease. Prognostic and predictive factors are often jointly discussed. Some biological factors, including ER, PR and HER2, are both prognostic and predictive factors.

The aim of our work is to give a status of prognostic and predictive factors of women with breast cancer in a group of patients in Oran. These factors are classified into clinical (Age, menopause, histological (histological type) and biological (ER: estrogen receptor, PR: progestin receptor, HER2 genes).

Keywords : characteristics, prognostic, predictive reproduction, breast cancer, risk factor, EHUO

Introduction

The origin of breast cancer is related to a change in the normal state of hormonal status in a woman, knowing that a woman's body goes through hormonal changes during the pre-pubertal, pubertal and post-pubertal periods, and even during the menopause. It is a hormone-dependent disease whose risk depends on the levels of estrogen and progesterone, which are, in turn, influenced by other genetic and environmental factors. Thus, several factors related to reproduction are cited as risk factors in the literature. (3)

Objective

To profile prognostic and predictive factors in a population of breast cancer patients.

Method of work

Retrospective descriptive study in the gynecology department and the medical oncology department of the Hospital and University Establishment of Oran (EHUO) over a period of 2 years.

Collection of information according to a form with all the variables to meet our objective : Personal characteristics (age), Characteristics of the tumor, biological elements

Result :

Our study collected 240 cases of female breast cancer managed at the EHUO. Among the clinical factors studied, the average age is 51.4 ±2.4 years with a range of 60 years. The youngest patient is 23 years old and the oldest is 83 years old. Among these women 64.3% are already menopausal.

The characteristics related to the reproductive life studied, the average age of menarche is 13.8±0.5 years with a regular menstrual cycle in 42% of the cases and irregular in 14% of the cases. The average age at first marriage was 24±1.8 years, with the upper limit for this variable being 33 years. The 63.3% were on contraception. The average duration of use was 9.9 ±3 years. The 55% mentioned the notion of breastfeeding with an average duration of 10.5±3.6 months. The age at first pregnancy was 24±3 years.

The study of tumor size revealed that T2 and T3 represent 56.8% of cases. The anatomopathology established shows that polymorphic ductal carcinoma with epithelial forms is the most common (93.9%). The 68.2% are of T2 anatomical size with a SBRII grade of 61.3% and lymph node involvement of 58%. Regarding biological factors, 32.2% are RE+, 47.4% are RP+, 46% are HER2+ and Ki67+.

Discussion

Breast cancer risk may be related to certain predictive characteristics that constitute risk factors.

A patient's age at diagnosis of breast cancer may affect prognosis Theoretically, a young woman (under 35 years of age) usually has a higher risk of recurrence and a poorer prognosis than an older, postmenopausal woman. In our study sample, in this age group, the disease tends to be more aggressive, higher grade and more advanced at diagnosis. In our study group, a

considerable frequency of women belong to the age group 23-45 years. Breast cancer affects young women in our population, often diagnosed at an advanced stage.

A Menarche less than 11 years, especially when it is related to a late menopause, a first pregnancy after the age of 40 years expose the woman to a three times greater risk to develop breast cancer (4-5). Breastfeeding is considered a protective factor.

Some prognostic factors in our study are also predictive of response to systemic therapies. Those that are both prognostic and predictive are the biological factors. The high frequency of Ki67 shows that our patients respond better to antimitotic chemotherapy. The high frequency of HER2 predicts a good response to Herceptin (6).

Conclusion :

Adherence to treatment should be tailored to each case based on prognostic and predictive factors. This approach reduces the risk of recurrence and mortality from this disease. Prognostic and predictive factors are often jointly discussed. Some biological factors, including ER, PR, and HER2, are both prognostic and predictive factors.

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