BIOSTATISTICS STUDY OF WOMEN BREAST TUMOR IN DIFFERENT AGES IN AL-KUT-IRAQ

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ABSTRACT

Background: Age is an important danger factor for breast cancer, but data concerning whether patient age at diagnosis is related to breast cancer survival are differing. This population-based study estimated the effect of age on breast cancer prognosis and recognized outcome-related causes. This study was displayed to determine women breast cancer according to different age groups.

Method: Data were collected from Al-Azezia hospital in al-kut in Iraq, from June 2020 to march 2021, and used to investigate the breast cancer with variable age group by final diagnosis manually by (leica Biosystems) immunohistochemistry kit of (CD34/ Ki67). younger women are generally not screened for early detection.

Conclusion: The presented study showed a highest percentage of benign tumor (40.38%) in age between (30-40) years and the lowest percentage (23.81%) were in age between (41-51), while the malignant tumor showed a highest percentage (76.20%) in age between (41-51) years and the lowest percentage (59.62 %) were in age between (30-40). And all the ages showed a high significant difference (P ≤ 0.01).

Keywords: Breast, Tumor, Benign, Malignant, Age Group.

I. INTRODUCTION

Breast tumor is a mass of abnormal tissue. There are two forms of breast tumors (benign and malignant). Tumors can differ in size from a small nodule to a large mass (1). Benign Tumors: A benign tumor is not attack near tissue or extent to other parts of the body. Most benign tumors are not dangerous and they can effect on nerves or blood vessels caused pain or other problems (2). The growing of a benign tumor may be caused by Environmental toxins such as exposure to radiation (3, 4, 5). Malignant tumors are cancerous and may be aggressive because they attack and damage nearby tissue (6). Breast cancer considers the greatest common cancer amongst women and represents a main public health threat. It occurs when cells in the breast start to grow and increase unusually (7). Signs of breast cancer include a mass in the breast, alteration in the shap of breast, dimpling of the skin, liquid coming from the nipple or a red or scaly spot of skin (8). The reason why the typical cells altered into cancer is unclear, but researchers identify that hormones, environmental factors, and genetics may play an important role (9). Age is one of some factors related to the danger of developing breast cancer. As a person gets older, their risk of developing breast cancer increases (10). This study aimed to describe the incidence trend of women breast cancer in difference age groups in al-kut \ Iraq.

Materials and Methods

The data were collected are 175 patient of women aged between (30-73) who had been examined with breast cancer during March 2020 to February 2021 in al –Kut / Iraq were collected randomly from al-azezia hospital. All the data had a final diagnosis manually by (leica Biosystems) immunohistochemistry kit of (CD34/ Ki67) with paraffin wax procedure.

Statistical Analyses

To detect the relations between breast cancer and age, we divided patients into four following groups (30-40 years, 41-51 years, 52-62 years, and 63-73 years) of ages. All statistical analyses were performed using System-
SAS (2012) program was used to study the effect of variance factors in study percentage Chi-square test was used to significant compare between percentage (0.05 and 0.01 probability) in this study (11).

II. RESULT AND DISCUSSION

Results

Our 175 patient divided according to the age, (41-51) years was the major group of patients registered in this study (63) patients, while (63 -73)-years was the lowest group of patient registered in this study (25) patient and (30-40), (52-62) years registered in this study respectively (52, 35) patient. All these patients were diagnosed in (54) Benign tumor, (121) malignant tumor and divided to (21 ,15 , 6 benign tumor patient) and ( 31, 48, 23, 19 malignant tumor patient ) respectively arranged into four groups according to the ages (30-40, 41-51 years, 52-62 years, 63-73 years).

According to table (1) the result showed a highest percentage of benign tumor (40.38%) in age between (30-40) years and the lowest percentage (23.81%) were in age between (41-51), while the malignant tumor showed a highest percentage (76.20%) in age between (41-51) years and the lowest percentage (59.62 %) were in age between (30-40). And all the ages showed a high significant difference (P ≤ 0.01).

Table 1. Distribution of sample study depending on age group in Benign and Malignant

<table>
<thead>
<tr>
<th>Age group (year)</th>
<th>No of patients</th>
<th>Benign tumor No (%)</th>
<th>Malignant tumor No (%)</th>
<th>Chi-Square ($\chi^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-40</td>
<td>52</td>
<td>21 (40.38%)</td>
<td>31 (59.62%)</td>
<td>7.24 **</td>
</tr>
<tr>
<td>41-51</td>
<td>63</td>
<td>15 (23.81%)</td>
<td>48 (76.20%)</td>
<td>12.86 **</td>
</tr>
<tr>
<td>52-62</td>
<td>35</td>
<td>12 (34.29%)</td>
<td>23 (65.71%)</td>
<td>10.07 **</td>
</tr>
<tr>
<td>63-73</td>
<td>25</td>
<td>6 (24.00%)</td>
<td>19 (76.00%)</td>
<td>12.81 **</td>
</tr>
<tr>
<td>Chi-Square ($\chi^2$)</td>
<td>--</td>
<td>6.87 **</td>
<td>6.87 **</td>
<td>---</td>
</tr>
</tbody>
</table>
| Total           | 175           | 54 (30.85%)         | 121 (69.14%)           | 10.54**               ** (P≤0.01).

III. DISCUSSION

The results of Breast cancer incidence is intensely related to the ages, so that the results showed highest percentage of malignant tumor (76.20%) in age between (41-51) years and the lowest percentage (59.62 %) were in age (30-40) and that result were agreed with William B. et al. 2016 (12). In other side the highest percentage of benign tumor (40.38%) in age between (30-40) years and the lowest percentage (23.81%) were in age between (41-51), and that means cancer mildly affected the youngest people , and that’s results approved by B.McAree et al. 2010 (13).

In Iraq, breast cancer is the main form of female malignancy, accounting for about one-third of the recorded female cancers depending on the latest Iraqi Cancer Registry (14). This shows that the breast is the important cancer site among the Iraqi population in general largely in the adult age group. This incresed is due to the health organization is still suffering from many weaknesses (15).

REFERENCES

