ABSTRACT

Background: Breast cancers tend to be more aggressive in younger patients and some histopathological types like medullary, mucinous and tubular variants have a better prognosis. This study describes the histopathologic pattern and tumour grade of breast carcinoma in younger patients.

Methods: This was a retrospective analysis of all consecutive breast cancer specimens submitted to the histopathology department of Federal Medical Centre Gombe during the study period. The data was analyzed with EPI Info 2002 using simple means and percentages.

Results: A total of 167 cases of breast carcinoma in 164 females were reviewed with three patients having bilateral disease. The age range of the study population was 22-75 years with a mean age of 44 +/-11.7 years. One hundred and twenty seven patients (76%) were aged less than 50 years while the rest were above 50 years. A total of 133 tumours were invasive ductal carcinomas, 107(80.45%) of which were in the premenopausal age group and 26(19.55%) in post menopausal age. One hundred and six patients (63.5%) had low grade tumours (grades 1 and 2) while 61(36.5%) had high grade tumours (Grades III and IV tumours). Forty three (70.5%) of these high grade tumours were seen in premenopausal age group. Eleven patients had invasive lobular carcinoma of which 4(36.4%) were premenopausal while 7(63.6%) were post menopausal.

Conclusion: It is concluded that younger patients tended to frequently have aggressive and high grade disease.
The age range of the study population was 22-75 years with a mean age of 44 +/-11.7 years. One hundred and twenty seven patients (76.0%) were aged less than 50 years while the rest were above 50 years. A total of 133 tumours were invasive ductal carcinomas out of which 107(80.45%) were in the premenopausal age group (<50 years) while 26 (19.55%) were post menopausal. Majority of the tumours 106 (63.5%) were low grade (grades 1 and 2) while 61 (36.5%) were high grade (Grades III and IV tumours). Forty three (70.5%) of these high grade tumours were seen in patients less than fifty years of age. Eleven (6.6%) tumours were invasive lobular carcinoma out of which 4 (36.36%) were seen in premenopausal patients, while 7 (63.63%) were in post menopausal patients (Table1). Twenty two tumours (13.2%) occurred in patients aged less than 30 years. Ten tumours were grade 1 with 6 of them in premenopausal patients while 7 tumours were grade 4 with 5 of them in premenopausal patients. Majority of the tumours 92 (55.1%) were grade 2 (Table2).

### Table 1: Histopathological distribution of tumor by age group

<table>
<thead>
<tr>
<th>AGE GROUP (YEARS)</th>
<th>IDC No</th>
<th>ILC No</th>
<th>ANAP No</th>
<th>MED No</th>
<th>MUC No</th>
<th>PAP</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 30</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>31 40</td>
<td>51</td>
<td>2</td>
<td>3</td>
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<td>0</td>
<td>1</td>
<td>57</td>
</tr>
<tr>
<td>41 50</td>
<td>37</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>47</td>
</tr>
<tr>
<td>51 60</td>
<td>18</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>61 70</td>
<td>7</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>71 80</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>133</td>
<td>11</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td>167</td>
</tr>
</tbody>
</table>

IDC=Invasive Ductal Carcinoma, ILC=Invasive Lobular Carcinoma, ANAP=Anaplastic Carcinoma, MED=Medullary Carcinoma, MUC=Mucinous Carcinoma, PAP=Papillary Carcinoma

### DISCUSSION

This study shows that invasive ductal carcinoma was the most common histopathological type of breast carcinoma in pre menopausal patients accounting for 107(64.1%) of cancers. Invasive ductal carcinoma is known to be aggressive and the high incidence in these young patients may explain the clinical pattern seen in clinical practice. This pattern was also reported by Anderson et al. Invasive lobular carcinoma, though rare in this study, were found mainly in post menopausal patients consistent with what is generally known about this disease.

This study shows a steady rise in invasive ductal carcinoma rates from age 20 to 50 and a slower rate of increase afterwards. This pattern was also reported by Anderson et al and may suggest differences in the aetiology of the disease at different ages. About 13% of our patients were less than 30 years of age; this is significantly higher than the 2% quoted for this age group by other workers and is a common occurrence in African patients. There was no case of in situ carcinoma in this series and...
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This is generally true for most breast cancer studies emanating from Nigeria. This may be attributable to paucity of dedicated screening programs for breast carcinoma coupled with a poor health seeking behaviour. Majority of our patients (63.5%) had low grade tumours (grades 1 and 2) while (36.5%) were high grade tumours (Grades III and IV tumours). In a study comparing tumour grade between Nigerian and Finnish breast cancer sufferers, Ikpatt et al reported 45.1% of their Nigerian subjects had high grade tumour while the Finnish counterparts had 15.8% high grade tumours. We however observed that a higher proportion of these high grade tumours (70.5%) were seen in patients less than fifty years of age. It can be concluded that younger patients tended to have more aggressive breast tumours typified by invasive ductal carcinoma, as well as higher grade tumours.

REFERENCES