Radiographers practice concerning breast compression in mammography

gradual versus no gradual

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Outline

• Justification

• Objectives

• Methods

• Results & Discussion

• Conclusions
Justification

Objectives

Methods

Results & Discussion

Conclusions

Objectives

- Evaluate the type of breast compression that provides less discomfort to the patient:
  - gradual versus no gradual
METHODS
Sample

<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 women</td>
<td>19-29 y</td>
</tr>
<tr>
<td>30 women</td>
<td>30-50 y</td>
</tr>
<tr>
<td>30 women</td>
<td>&gt; 50 y</td>
</tr>
<tr>
<td>Total = 90</td>
<td></td>
</tr>
</tbody>
</table>

- Not random: women without interventions
- Informed Consent Form
Compression

CC  MLO

1º No Gradual
2º Gradual

1º Gradual
2º No Gradual

= Compression Force for both modes – gradual and no gradual (kg)
Compression

No gradual

Compression

Gradual
Pain/discomfort evaluation

Wong Baker scale

• Data collection completed with:
  • Focus group
RESULTS & DISCUSSION
Compression force & breast thickness

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Compression Force (mean; min; max)</th>
<th>Thickness (mean; min; max)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CC</td>
<td>MLO</td>
</tr>
<tr>
<td>19-29</td>
<td>7 (4-11)</td>
<td>5 (3-9)</td>
</tr>
<tr>
<td>30-50</td>
<td>6 (3-11)</td>
<td>6 (3-9)</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>6 (3-11)</td>
<td>6 (4-9)</td>
</tr>
</tbody>
</table>

- Compression force was higher for CC-view
- Thickness was higher in MLO-view
Pain/discomfort evaluation - compression

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>NO gradual compression (Mean; sd)</th>
<th>Gradual compression (Mean; sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CC</td>
<td>MLO</td>
</tr>
<tr>
<td>19-29</td>
<td>3.6±2.5</td>
<td>4.5±1.9</td>
</tr>
<tr>
<td>30-50</td>
<td>3.6±2.4</td>
<td>4.9±2.7</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>3.2±2.7</td>
<td>3.7±2.7</td>
</tr>
</tbody>
</table>

- Higher score (pain) for:
  - MLO projection
  - No gradual compression
  - Younger women
Pain/discomfort evaluation

- “(...) I did not fill pain only discomfort ... mainly when the muscle is pulled (...)”
- “(...) it was hard mainly in oblique projection (...) the positioning of axila is painful.”
- “(...) There is period of adaptation with gradual compression(...) causes less pain and discomfort...however the procedure is longer.”
- “(...) The previous information that I had it was not real (...) the compression is not so difficult”.


CONCLUSIONS
Gradual vs No gradual

• For all ages the pain score was < to 5.

• For both projections gradual compression was considered the less painful.

• MLO projection was considered the most uncomfortable due to the positioning of muscle and axila.
Thank you for your attention

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