Comparing Margin Diameter and Margin Index in Predicting Residual Disease Following Partial Mastectomy, P85

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Purpose:
• To determine if definition of negative margin should be redefined
• Use margin distance to stratify risk of residual disease

Background:
• Breast conserving surgery combined with radiation therapy standard treatment in early stage breast cancer
• Long term survival equivalent to mastectomy
• 20-60% of patients require a second operation because of inadequate margins
• Local recurrence impacted by many factors
• Strongest predictor

Surgical Margin:
• No consensus on definition of negative margin
• Currently 2-3 mm up to 5 mm for DCIS

Methods:
• Single institution review
• Retrospective analysis of our database of 95 patients who underwent re-excision from 2008-2009
• Tumor size was assessed microscopically
• Closest margin distance was used
• Margin Index was calculated
• A receiver operating characteristic curve was created

Patient Characteristics:
• 217 patients; 95 had re-excision (43%)
• 88 had sufficient data for QI study
• Stage I and II disease
• 41 patients had close margins
• 21% had residual disease on re-excision
• 2-3 cm tumor on Ink
• 65.9% of patients had close margins
• Margin Index was calculated

Conclusions:
• Not a superior predictor over margin distance
• Limitations
  - Small Sample Size
  - Retrospective
  - Selection Bias
  - Small number of patients margin >1mm
• Continue to use current treatment guidelines
• Further research to determine adequate margins

Table: Margin Index in Predicting Residual Disease Following Partial Mastectomy

<table>
<thead>
<tr>
<th>Margin Diameter (mm)</th>
<th>Total Number of Patients</th>
<th>Patients with Residual Disease on Re-excision</th>
<th>% Patients with Residual Disease on Re-excision</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;3</td>
<td>16</td>
<td>3</td>
<td>19%</td>
</tr>
<tr>
<td>1-2</td>
<td>6</td>
<td>1</td>
<td>14%</td>
</tr>
<tr>
<td>&lt;1</td>
<td>6</td>
<td>1</td>
<td>16%</td>
</tr>
</tbody>
</table>

Receiver Operating Characteristic Curve for Margin Index ≥5

Receiver Operating Characteristic Curve for Margin Index ≥3

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