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

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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

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

Margin Index:
• Margin Index = closest margin (mm)/tumor size (mm) x 100
• 475 patients stage I-II treated with BCT
• Underwent re-excision for close margins
• 102 (21%) had residual disease on re-excision
• Optimum Margin Index ≥5
• Sensitivity 85% and Specificity 73%
• Identify patients who need re-excision

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
• Median Age: 55
• Median Tumor Size: 2 cm
• Average margin distance 0.91 mm
• Median Margin Index 2.78

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

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