Accuracy of the specimen radiography in the breast-conservation surgery

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Objective: The aim of this study was to evaluate the accuracy of X-ray specimen in assessing the Complete Local Excision (CLE).

Materials & Methods: It was a retrospective cross sectional study. Data of all females who underwent breast-conserving surgery for breast cancer after needle localization of mammographically visible disease was collected. Male patients, patients with mammographically invisible disease and cases with benign or inconclusive histopathology, patients with modified radical mastectomy, dense breast parenchyma and lesions with closed margins were excluded. We evaluated the specimen radiography to assess margins spiculation, distance of mass/microcalcification from excised margin, presence of mass, presence of any adjacent microcalcification and other features including histological mass size, nuclear grade and patient's age were also recorded and all were analyzed to see any association with CLE.

Results: Absence of adjacent microcalcifications and presence of mass on radiograph showed significant association with CLE however other features did not show any association. Specimen radiography was found to be a sufficient tool to predict CLE with positive predictive value of 83.3%, sensitivity of 80.65% and specificity of 81%.

Conclusion: Specimen radiography is an important and sensitive tool to predict CLE.

Biography
Imrana Masroor is currently working as an Associate Professor and Section Head of Women Imaging at Radiology Department, Aga Khan University Hospital Karachi, Pakistan. She has two fellowships in diagnostic imaging, one from College of Physician and Surgeons Pakistan and second from Royal College of Radiologist, UK. She also holds the European Diploma in Breast Imaging. She is also the program Director for the fellowship program in Women Imaging at the department. She has a number of national and international publications to her credit in field of expertise.

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