

## The role of mammography after breast-conserving surgery and adjuvant chemotherapy

Sara Ramella, Edy Ippolito, Michele Fiore, Carlo Greco, Aurelia Iurato, Luca E Trodella, Barnaba Floreno, Alessia Di Donato, Rolando M D'Angelillo, and Lucio Trodella

*Department of Radiotherapy, Campus Bio-Medico University, Rome, Italy*

---

### ABSTRACT

---

**Aims and background.** To investigate the impact of postchemotherapy mammography on radiotherapy timing and detection of early locoregional recurrences in breast cancer patients treated with breast-conserving surgery and adjuvant chemotherapy.

**Methods.** Bilateral mammography was performed before radiotherapy. Mammogram assessments were collected using the Breast Imaging Reporting and Data System (BI-RADS) scale. Differences in waiting times for radiotherapy between patients who needed further evaluation after mammograms and who did not were tested by the nonparametric Mann-Whitney U test.

**Results.** A total of 277 patients who underwent locoregional restaging after conservative surgery and adjuvant chemotherapy were evaluated. All patients had surgical margins greater than 2 mm. No locoregional recurrences were detected. Only in 2 patients (0.7%) did preradiotherapy mammograms reveal a contralateral breast cancer, which was histologically confirmed. After chemotherapy, the waiting times for radiotherapy were not different between patients who needed further imaging evaluation and patients who did not (34 days, 95% CI: 29-65 *vs* 38 days, 95% CI: 32-39; *P* = NS).

**Conclusion.** According to these data, postchemotherapy mammography detected a contralateral breast cancer in very few cases (0.7%); thus, even if performing these exams did not delay the start of radiotherapy, we believe that preradiotherapy mammograms are not necessary for patients undergoing adjuvant chemotherapy after breast-conserving surgery.

---

**Key words:** breast cancer, radiotherapy, mammography.

*Correspondence to:* Sara Ramella, MD, Via Alvaro del Portillo 21, 00128 Rome, Italy.  
Tel +39-06-22541416-420;  
fax +39-06-22541433;  
email s.ramella@unicampus.it

Received September 11, 2012;  
accepted December 4, 2012.