

Ductal carcinoma in situ of the breast and adjuvant treatment

Carcinoma ductal in situ da mama e tratamento adjuvante

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Solin et al.¹ demonstrated the updated results of Eastern Cooperative Oncology Group (ECOG) and the American College of Radiology Imaging Network (ACRIN) E5194 study with 12-year outcomes. This is a non-randomized prospective investigation performed for patients with low-risk ductal carcinoma in situ (DCIS) of the breast who underwent lumpectomy without post-operative radiation therapy. Two cohorts [cohort 1: tumor size ≤ 2.5 cm and low- or intermediate-grade DCIS (n=561); cohort 2: tumor size ≤ 1 cm and high-grade (n=104)] were assessed in regard to the risk of developing ipsilateral breast relapse (IBR). The 12-year rates of IBR were 14.4% (cohort 1) and 24.6% (cohort 2).

As mentioned by the authors in the discussion, there are five randomized phase III studies confirming that post-operative radiation therapy decreases the risk of IBR (in situ and invasive tumor) by approximately 50% without improvement in overall survival. Two other trials showed that adding tamoxifen reduces the risk of breast recurrence (ECOG-ACRIN E5194 study, tamoxifen was given to 30% of women only). It is important to highlight that European Organisation for Research and Treatment of Cancer (EORTC)² trials demonstrated local control benefit by adding radiation therapy even in a subgroup of low-risk patients (free surgical margins, tumor > 2 cm and low-grade DCIS). These results were confirmed by the Early Breast Cancer Trialists' Collaborative Group meta-analysis.³ Although there is no benefit in overall survival in patients who received postoperative radiation therapy, women who developed invasive IBR had higher breast cancer mortality rate.

Adjuvant treatments (radiation therapy and tamoxifen) reduce the risks of failure. However, the initial treatment choice has no observable effect on cancer-specific survival rates for DCIS patients as a whole. Nevertheless, IBR can cause huge psychological trauma and may impact on breast cancer mortality rate if invasive tumor recurrence occurs. Thus, the decision to perform or not adjuvant treatment for DCIS patients should be evaluated taking into account whether the absolute reductions in failure provided by radiation therapy and tamoxifen is satisfactory to outweigh their potential side effects.

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