

DUCTAL CARCINOMA IN SITU OF THE BREAST TREATED WITH PARTIAL MASTECTOMY AND RADIATION THERAPY

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Purpose : Partial mastectomy and radiation therapy is a treatment option for patients with ductal carcinoma in situ (DCIS) of breast. The aim of our study is to evaluate the outcome and analyze prognostic factors in patients with DCIS of breast treated with partial mastectomy and radiation therapy.

Materials and Methods : From December 1992 through July 2003, there were 29 women diagnosed with DCIS of breast receiving the treatment of partial mastectomy and radiation therapy at our institution. The median age of diagnosis was 46 years. The median tumor size was 2.0 cm. The tumor was predominantly at left-side breast (66%), and the outer upper quadrant was the main location (59%). Sentinel axillary lymph node biopsy was performed in 8 patients (28%). The resection margin was free in 14 patients (48%), and positive in 6 patients (21%). The subtypes of pathological report were comedo type in 13 patients (45%), papillary type in 4 patients (14%), cribriform type in 3 patients (10%), solid type in 2 patients (7%), and not specified in 7 patients (24%). Ten patients had high-grade DCIS (35%). Necrosis of tumor was found in 16 patients (55%). The median radiation dose to the breast was 46Gy. The median dose of tumor bed boost was 16Gy. After completion of radiation therapy, hormone therapy with tamoxifen 10mg twice daily was administered to 13 patients (45%).

Results : All 29 patients were alive until the latest follow-up. The median duration of follow-up was 25 months (range: 3 to 127 months). Among 28 patients without any regional recurrence or distant metastasis, 11 patients survived for more than 30 months. Only one out of 29 patient (3%) had regional recurrence after follow-up for 4.5 years. Three-year overall survival rate was 100%, and five-year overall survival rate was 100%. Three-year disease free survival rate was 100%, and five-year disease free survival rate was 80%. Three-year disease specific survival rate was 100%, and three-year disease specific survival rate was 100%. Twenty-five patients (86%) had excellent cosmetic results, and 4 patients (14%) had good cosmetic results. In univariate analysis of variables with log rank test, tumor necrosis, tumor grade, and resection margin were significant in predicting disease free survival.

Conclusion : The good survival outcome and low local recurrence rate suggested the treatment with partial mastectomy and radiation therapy was a good option of treatment for DCIS of breast. Tumor necrosis, tumor grade, and resection margin were prognostic factors on disease free survival. Larger study series with longer follow-up period should be warranted to make advanced analysis in patients with DCIS receiving treatments of partial mastectomy and radiation therapy.

[Therapeut Radiol Oncol 2004; 11(1): 17-25]

Key words: Ductal carcinoma in situ, Breast cancer, Partial mastectomy, Radiation therapy.