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POSTER

Treatment-induced early menopause in very young (age under the 35 years old) breast cancer patients

W.J. Kil, S.D. Ahn, S.S. Shin, S. Lee, E.K. Choi, J.H. Kim, B.H. Son, S. Ahn, W.K. Kim, S.B. Kim. *Asan Medical Center, Radiation Oncology, Seoul, Korea*

Purpose: A retrospective study was performed to evaluate the treatment-induced early menopause in very young (age under the 35 years old) breast cancer patients.

Methods and Materials: Total 160 patients (pts) between Jan. 1992 and Dec. 2002 were available for analysis. Patients' median age was 32 years old (range, 18–34). One hundred twenty pts were practiced with mastectomy and 40 were underwent breast conservation surgery. Postoperative chemotherapy was following; 80 pts with alkylator-based regimen (CMF), 80 pts with anthracyclin-based regimen (ADR). Adjuvant radiotherapy was practiced in 57 pts. Total 77 pts received anti-estrogen therapy. Treatment-induced early menopause and present menstrual status was evaluated from hospital records and by telephone interview. Median follow-up period was 54 months (range, 29–156).

Results: Treatment-induced early menopause (M) was occurred in 36.9% (59/160); 31.3% (25/80) pts with CMF, 42.5% (34/80) pts with ADR ($p = 0.142$). M was happened after median 2nd cycle chemotherapy (range, 1st–6th cycle). Patients' M was recovered in 83.1% (49/59); 80% (20/25) with CMF, 85.3% (29/34) with ADR ($p = 0.6$). Median time to recover pts' menstruation was median 3.5 months (range, 1'–18 months) after M. Disease was recurred in 16.9% (10/59) and 17.8% (18/101) in patients with M and without M, respectively ($p = 0.89$).

Conclusion: Overall incidence of M in very young breast cancer patient was similar with reported rates. But, the incidence of recovery from M is higher than reported rates and there is no difference between CMF and ADR regimens in very young breast cancer patients.

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Impact of preoperative Magnetic Resonance Imaging on the operative management in breast carcinoma

S. Shin¹, Y. Choi¹, K. Yoo¹, J. Kim¹, S. Nam¹, J. Yang¹, Y. Choi², B. Han³, Y. Ko³, Y. Choi³. ¹Samsung Medical Center, Sungkyunkwan Univ., Department of Surgery, Seoul, Korea; ²Samsung Medical Center, Sungkyunkwan Univ., Department of Radiology, Seoul, Korea; ³Samsung Medical Center, Sungkyunkwan Univ., Department of Pathology, Seoul, Korea

Background: Breast Magnetic Resonance Imaging (MRI) has been focused due to its high sensitivity in the detection of a breast carcinoma, especially in multifocal and multicentric malignancy. The authors reviewed the rate of change in operative management depends on the MRI result and assessed the diagnostic accuracy of preoperative MRI.

Materials and methods: A total of 148 patients with a primary breast carcinoma underwent preoperative MRI and surgery at our institute between January 1, 2002 and January 31, 2005. Their clinicopathological data and radiological findings were reviewed.

Results: Thirty-eight patients who were unavailable for the conventional radiological imaging (mammography, ultrasonography) were excluded. MRI detected additional lesions that had not been detected in conventional imaging modality were in 55 patients (50%). Planned surgical management was altered in 34 out of 110 patients (30.9%). Twenty-three out of 110 patients (20.9%) had a conversion of planned breast conservation to a mastectomy and there was a pathologic correlation of malignancy in the surgical specimen in 17 of those patients (73.9%). Eleven out of 110 patients underwent a wider excision or an additional, separate excisional biopsy to evaluate the area of MRI detected abnormality: only 2 out of 11 patients had a pathologic correlation. The additional lesions of 19 patients who had a pathologic verification were 12 multiple lesions and 5 more extensive and subareolar extensive lesions and 2 contralateral breast additional malignant lesions. In the 29 patients who had pathologically proven multiple breast cancer, the sensitivity of MMG, Breast USG, MRI was 17.2%, 58.6%, 89.7% and specificity of each modality was 87.7%, 71.6%, 59.2%, respectively. Breast MRI had a high sensitivity and a low specificity in detecting multiple breast carcinomas.

Conclusions: In 34 patients who had a change in surgical management due to MRI additional lesion, 19 patients had a pathologic verification and in 12 of the patients had a multiple lesion that had not been detected in conventional imaging modality. Preoperative MRI may be useful for the detection of concealed malignancies in patients who are planned for breast conservation surgery.

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Second conservative treatment for locally recurrent early breast cancer: fourteen-year results of a non-randomized comparison with mastectomy

B. Guix, J. Lejarcegui, J. Tello, G. Zanon, P. Palombo, D. Rubio, J. Del Campo, F. Finestres, P. Palombo. *Imor Foundation, Medical Institute for Radiotherapy, Clinical Oncology, Barcelona, Spain*

Aim: To report the long term results obtained in a prospective group of patients treated for local recurrence after conservative treatment of breast cancer treated by a second conservative surgery and brachytherapy or by total mastectomy.

Methods: Between 12/1990 and 04/2003, 81 patients with small size, low-risk local recurrence after conservative treatment for breast cancer were offered total mastectomy as salvage treatment. 44 of them refused mastectomy and were treated by a second lumpectomy followed by HDR brachytherapy implant to the tumor bed plus a 3 cm safety margin. Brachytherapy was given between 1 and 3 weeks after excision. Implants were done at the time of surgery in 38 cases and in the remaining 6 patients at the time of beginning treatment. The average number of implanted tubes was 8 (range 4–16) and the average volume of the reference isodose curve was 56 cc. HDR brachytherapy doses were 30 Gy in 12 fractions in 5 days. Patients treated by mastectomy had no further radiotherapy treatment.

Patients with positive oestrogen receptors were treated with tamoxifen for 2–5 years, premenopausal patients with negative receptors had chemotherapy and postmenopausal patients with negative receptors had no systemic treatment. No patient was lost for follow-up. Special attention to local, regional or distant recurrence, survival, fibrosis, late effects and cosmesis was done during the follow-up period.

Results: All patients completed treatment. During the 14-year, 1-year minimum follow-up, in the 2nd conservative group there were 8 patients who had regional (2 cases) or distant metastases (6 cases) as their first site of failure. Three of them experienced a differed local recurrence and 1 of them died from the disease. In the total mastectomy group, there were 2 local recurrences, 1 regional recurrence and 5 distant metastases as first site of failure. One patient died from the disease. Actuarial results at 14-year for 2nd conservative and total mastectomy were respectively: local control 84.2% and 71.7%; disease free survival 65.4% and 63.8%; and survival 90.7% and 88.2%. Cosmetic results were satisfactory in 89.4% treated conservatively. No patient experienced arm edema or grade 3–4 early or late complications. Between the 14 patients that were followed-up for at least 10-years, 13 of them were with their breast still in place.

Conclusions: Second conservative treatment by HDR brachytherapy was a safe and effective method of treatment for small-size, low-risk, local recurrence after local excision in conservatively treated patients. The dose of 30 Gy given in 12 fractions along 5 days at 2.5 Gy/fraction, 2–3 times every day was safe in patients previously treated. The good results achieved justifies the initiation of randomized trials exploring its use as standard treatment in selected patients with low-risk recurrent breast tumors.

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Acute skin toxicity in post-mastectomy radiation

T.T.T. Vu, J-P. Pignol, S. Bosnic, G. Mitera. *Toronto-Sunnybrook Regional Cancer Center, Radiation Oncology, Toronto, Canada*

Background: The role of post-mastectomy radiation (PMR) remains a subject of debate. Trials have addressed for whom it is indicated and which nodal groups should be treated, but there is little data on its impact relating to acute toxicity. The goal of this study was to determine the rate of acute skin toxicity in patients receiving PMR and to evaluate which clinical and treatment-related factors are associated with severe toxicity.

Methods: This prospective cohort study opened in November 2004 and included patients referred to our center for radical PMR. Assessment was done weekly during treatment and at one, two and four weeks post-treatment. Pain and radiation dermatitis were scored using the NCI Common Toxicity Criteria scale. The factors studied were: age, comorbidities, skin type, body mass index (BMI), regimen of hormone therapy and chemotherapy and timing to radiation, radiation dose and dose/fraction, energy, inhomogeneity of isodose distribution and use of bolus (a tissue equivalent material). Univariate and multivariate logistic regression analysis were used for statistical analysis.

Results: To date, 77 patients have been assessed, with a median age of 54. 85% were stage T2 and/or node-positive. 80% received anthracyclin-based chemotherapy (all neo-adjuvant to radiation) and 40% received hormone therapy concurrently with radiation. All were treated using photons, half with 6 MV and half with 6+18 MV. All received 50 Gy in 25 fractions to the chest wall and 14% received a boost to the chest wall to 66 Gy. 90% received nodal radiation, also to 50 Gy. For 93% of patients, a 1 cm bolus was applied every day during radiation. The use of bolus