

synchronous disease, but was not statistically significant. Therefore, the utility of performing ODX on both lesions to guide adjuvant treatment recommendations is not supported by this experience. Rather, ODX can safely be used on a single lesion to guide treatment decisions.

Variable	Unilateral	Bilateral w/1 ODX Score	Bilateral w/2 ODX Score	p-value
Recurrence score	n = 593; 16 [0,63]	n = 13; 18 [6,37]	n = 8; 14 [6,23]	0.7663
Age (yr)	n = 584; 58 [27,84]	n = 13; 66 [43,77]	n = 8; 63.5 [44,70]	0.1728
Size (cm)	n = 556; 1.5 [0,9]	n = 13; 1.5 [1.1,2.1]	n = 8; 2.05 [1.1,2.6]	0.3857
Follow-up (yr)	n = 592; 2.88 [0.1,9.7]	n = 13; 3.84 [1.3,6.8]	n = 8; 3.1 [1.3,5.8]	0.2196
n; median [range]				

Radiotherapy Does Not Increase Implant/Expander Loss in Breast Cancer Patients Who Underwent Immediate Breast Reconstruction

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Objective The introduction of techniques, including skin-sparing mastectomy and nipple-areola sparing mastectomy, has improved the aesthetic outcome of oncological breast surgery and immediate reconstruction. The aim of this study is to analyze our experience regarding the effect of adjuvant radiotherapy on complication rates among patients who underwent mastectomy with immediate reconstruction.

Methods From January 2007 to October 2014, 96 mastectomies of 84 patients who referred to our clinic with the diagnosis of breast cancer and those who underwent immediate breast reconstruction with implant/expander were analyzed retrospectively. Patient's demographic data, complications, and implant/expander loss rates were examined.

Results Median age of the patients was 40 (20–74). Fourteen patients were >50 (17%), 70 were ≤ 50 (83%). The median follow-up period was 30 (3-100) months. Thirty-one patients have family history of breast cancer (37%). Of 84 patients, 12 (14%) underwent bilateral mastectomies and, therefore, 96 mastectomies with immediate breast reconstruction were performed. Four of 12 patients with bilateral breast reconstruction had contralateral breast cancer and the remaining 8 patients underwent prophylactic contralateral breast reconstruction. Of the 96 mastectomies, 49 were skin-sparing (SSM) (51%), 46 were nipple-areola sparing (NSM) (48%), and 1 was areola sparing (ASM) (1%) by video endoscopic assistance in 13 mastectomies. Expander was placed in 74 (77%) mastectomies and implant was placed in 22 (23%) mastectomies in the immediate breast reconstruction. Early-stage breast cancer was determined in 71 of 84 patients (85%) (DCIS, n = 6; Stage 1, n = 18, Stage 2, n = 47). Thirty-two patients were luminal A (38%) and 37 patients were luminal B (44%), whereas there were 6 patients with triple-negative (7%) breast cancer; and 8 patients with nonluminal HER2 positivity (8%). Fifty-five patients had adjuvant chemotherapy (65%), 40 patients had adjuvant radiotherapy (48%), and 62 patients had adjuvant hormonal therapy (74%). Expander was most likely preferred in patients undergoing radiotherapy (n = 36; %90). Complications occurred due to immediate breast reconstruction in 21 of 96 mastectomies (22%). No significant difference could be found in implant/expander loss rates and minor and major complication rates between mastectomies with or without radiotherapy (implant/TE loss rates: RT(-), 14.3%, vs RT(+), 15%, p = 0.92, and complication rates: RT(-), 21.4%, vs RT(+), 22.5%, p = 0.90, respectively). Complications included implant/expander complications (11%), wound infection (4%), incision necrosis (2%), and partial incision dehiscence (1%). Of 43 patients who underwent NSM, partial nipple-areola complex necrosis occurred in 4 patients (9%). Implant/expander was removed in 14 patients (16%) due to implant/expander complications (n = 9), or secondary to wound infection (n = 3), or secondary to partial dehiscence (n = 1), or secondary to expander extrusion due to mastectomy flap necrosis (n = 1).

Conclusion Complication and implant/expander loss may occur in patients who underwent mastectomy with immediate breast reconstruction. In terms of complications and prosthesis removal, adjuvant radiotherapy does not constitute a significant difference compared to those not receiving radiotherapy. Implant/expander infection secondary to wound infection affects implant/expander removal. Considering the complications and implant/expander losses, immediate reconstruction can be safely applied for selected patients with cosmetic satisfaction.