METHODS: DIR patients were matched to delayed patients based on age (+/- 5 years), body mass index (BMI) (+/- 2.5), and unilateral or bilateral reconstruction. Retrospective chart review was conducted to collect clinical outcomes, independent reviewers scored cosmetic outcomes (skin quality/color, scar formation, symmetry, breast contour/size/position, overall aesthetic outcome), and patients scored their satisfaction using the BREAST-Q patient reported outcomes instrument. We further examined whether other factors such as smoking, obesity, and RT influenced cosmetic results. Statistical analyses were conducted in IBM SPSS Statistics 24.

RESULTS: 19 DIR and 19 delayed patients were included. The mean patient age was 46.5 years (range 29–64) and the mean BMI was 29.6 (range 21.4–41.9). There were no differences in demographics between the two groups. 16 patients underwent unilateral reconstruction and 22 patients underwent bilateral reconstruction. DIR was associated with a higher infection rate (42.1% vs. 5.3%, p=0.026), and all infections involved the TE. DIR patients had significantly better breast contour/size/position than the delayed group (p=0.041). Further, compared to patients who received RT, those who did not receive RT demonstrated better cosmetic outcomes in terms of skin quality/color (p=0.001), symmetry (p=0.001), breast contour/size/position (p<0.001), and overall aesthetic outcome (p<0.001). There were no differences in patient satisfaction between the two groups.

CONCLUSION: DIR could be an excellent choice for patients wanting autologous reconstruction when the need for radiation therapy remains unknown, as it demonstrated better breast contour/size/position as compared to the delayed group. However, patients should be informed about the higher risk of TE infection, which could influence the ultimate cosmetic result, and that patient satisfaction was ultimately the same for patients choosing either reconstructive strategy.

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Breast Reconstruction Following Augmentation: Management and Aesthetic Outcomes in 37 Consecutive Patients

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INTRODUCTION: Breast augmentation is the most frequent operative cosmetic procedure performed in the United States.[1] Women with breast implants requiring reconstruction are subsequently common and represent a unique challenge to the plastic surgeon. The purpose of this study is to present a single-site 20-year experience of patients with augmented breasts undergoing reconstruction and to analyze their clinical outcomes and cosmetic results determined by independent judges.

METHODS: 37 consecutive patients were identified between 1997 and 2016 after a retrospective institutional review board approved chart analysis. Patient demographics, clinical, and operative details were documented. Using a standardized questionnaire with 1–5 Likert scales[2], de-identified preoperative and postoperative photos were evaluated by 12 reviewers from our institutions who were not involved in the care of these patients.

RESULTS: The following five reconstruction types were performed: 6 oncoplastic (16.2%),[3] 3 implant-based (8.1%), 14 staged expander-to-implant (37.8%), 7 staged expander-to-flap (18.9%), and 7 cases of flap reconstruction (18.9%). 10 complications occurred in 8 patients based on a mean follow-up time of 2.1±0.9 years. In 35 women, the previous implants were removed and replaced by new ones in 31 of those cases. Overall, postoperative cosmetic scores were similar to preoperative values. However, in the oncoplastic subgroup, significant aesthetic improvements were achieved. These 6 patients received best postoperative cosmetic scores followed by implant-based and staged expander-to-implant patients (p<0.001). Microsurgical flap patients scored lowest according to our reviewers (p<0.001), which was statistically related to increased rates of external radiation and delayed reconstruction. After reconstruction, results of round implants were judged better than those of shaped implants (p<0.001).

CONCLUSION: Choosing the appropriate surgical treatment and reconstruction remains difficult in patients with augmented breasts. Our results show that lumpectomy and oncoplastic reconstruction are possible and lead to best cosmesis. Microvascular reconstructions are inferior with regards to aesthetic outcome given the aggravating oncological circumstances.

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Breast Reconstruction Implant Type Impacts Patient Satisfaction Reported By the Breast-Q

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INTRODUCTION: Patients and providers should be aware of patient-reported differences in satisfaction and quality of life associated with different types of implants in order to make informed decisions regarding their treatment. We investigated whether patients who receive saline or silicone breast implants as a part of their breast reconstruction report different satisfaction and quality of life scores.

METHODS: Using our IRB-approved, prospectively collected breast reconstruction patient registry, we queried pre- and post-operative data from patients who underwent breast reconstruction with saline or silicone implants at our institution. Data of interest included patient-reported satisfaction and quality of life outcomes using the Breast-Q reconstruction module. Breast-Q data were collected before mastectomy and reconstruction and at 12-months post-final reconstruction. To assess the association between the type of breast implant and Breast-Q outcomes, we conducted multiple linear regression analysis adjusting for age, BMI, timing of breast reconstruction, laterality, post-mastectomy radiotherapy, and postoperative chemotherapy.

RESULTS: Between 2010 and 2015, 124 patients were eligible for study inclusion: 31 (25%) women underwent saline implant-based reconstruction and 93 (75%) underwent silicone implant-based reconstruction. Pre-operative Breast-Q values were statistically comparable for all Breast-Q domains with no statistically significant differences between the two groups. Patients who received saline implants reported higher median Breast-Q scores 12-months post-final breast reconstruction for the domains of Psychosocial Well-Being (saline:84, IQR=[52.5–86.7] vs silicone:76, IQR=[54.1–92]) and Physical Well-Being: Chest and Upper Body (saline:85, IQR=57–85 vs silicone:77, IQR=[66–91]). These differences were statistically significant only for the Psychosocial Well-Being domain (adjusted analysis; 95% CI:[-20.85,-1.15]; p=0.029). Patients with silicone implants reported higher median scores for Satisfaction with Breasts (saline:61, IQR=[44.2–68.6] vs silicone:62, IQR=[48.1-7]), Sexual Well-Being (saline:54, IQR=[38.2–59.3] vs silicone:57, IQR=[40.54–63]). However, these differences were not statistically significant. Post-operative complications were not significantly different between study groups.

CONCLUSION: Our results suggest that patients receiving breast reconstruction with saline and silicone implants report same or similar long-term patient-reported satisfaction and quality of life. Interestingly, scores for the Psychosocial Well-Being domain were higher in the saline implant patients; however, possible clinical causes for this are not clear. Future prospective studies with larger sample sizes are clearly necessary to further clarify the effect of the type of implant on patient quality of life and satisfaction associated with breast reconstruction.