Implant-Based Breast Reconstruction in Previously Augmented Patients

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Purpose: It is estimated that more than 2 million women have undergone augmentation mammoplasty in the U.S. As breast cancer continues to be the most common malignancy in women, reconstructive surgeons will inevitably encounter patients with breast cancer that have had prior augmentation. Implant-based techniques represent the most common form of breast reconstruction currently practiced. The purpose of this study is to evaluate the outcomes of implant-based reconstruction in previously augmented women.

Methods: All patients who underwent immediate implant based breast reconstruction between 2004 and 2009 were reviewed. Patients with a history of prior augmentation (PA) (n = 38) were compared to a randomly selected cohort of patients with no prior augmentation (NPA) (n = 77). Demographic variables, augmentation details, reconstruction type, complication rates, and revision rates were evaluated.

Results: Demographic variables and surgical risk factors were noted to be similar between the two groups. At a mean follow-up of 15 months, overall complications were similar at 28.9% in the PA group versus 23.4% NPA (p-value = 0.51). There were no differences in Peri-operative complication rates. Long term complication rates such as capsular contracture were also similar having 4.9% in the PA group versus 5.2% in the NPA group (p-value = 0.91). However, the need for revision surgery was greater in the PA group compared to the NPA group (37.5% vs 14.8% p-value < 0.00). Subgroup analysis revealed higher rates of secondary revision for asymmetry and contour deformity requiring fat grafting in PA vs the NPA group (p-values = 0.05 and 0.05 respectively).

Conclusion: Implant-based breast reconstruction is a safe option for previously augmented patients that are able to provide outcomes that are largely similar to non-augmented reconstruction patients. Previously augmented patients, however, should be counseled that they more frequently require an additional operation for revision when undergoing prosthetic reconstruction.