in breast reconstruction. Using a multicenter, prospective design, the current study sought to analyze the impact of surgeon gender on PROs in women undergoing post-mastectomy reconstruction.

METHODS: Patients were recruited as part of the prospective, multicenter Mastectomy Reconstruction Outcomes Consortium (MROC), a National Institute of Health-funded study (R01 CA152192). Surgeon gender, reconstructive procedure type, timing of reconstruction, lymph node management, and receipt of radiation or chemotherapy were collected for all patients. Patient reported outcomes, including satisfaction with surgeon, satisfaction with information provided, and satisfaction with overall outcome, were assessed using the BREAST-Q questionnaire at three months and two years following breast reconstruction. Univariate and multivariable logistic regression analyses were performed to investigate the effects of surgeon gender on PROs.

RESULTS: A total of 2,236 patients from the practices of 55 male breast reconstruction surgeons and 9 female surgeons were included in the analysis. In this cohort, 1921 (82.2%) patients had male surgeons whereas 415 (17.8%) patients had a female surgeon. There were no significant differences in sociodemographic variables between the patients in the male-surgeon and female-surgeon groups. There were also no differences in receipt of radiation or chemotherapy.

On univariate analysis, female surgeons were more likely to perform immediate reconstruction (95.7% vs. 89.9%, p<0.001) and implant-based breast reconstruction (78.8% vs. 62.9%, p<0.001), compared to male surgeons. Patients with female surgeons reported greater satisfaction with their surgeon (p<0.001) and information received (p<0.05) at three months after breast reconstruction. Similarly, patients in the female-surgeon group reported statistically significantly greater satisfaction with overall outcome (p<0.05) at two years following breast reconstruction.

Multivariate analysis of two-year postoperative PROs revealed patients with a female surgeon experienced significantly greater satisfaction with their surgeon (adjusted mean difference=4.45, p<0.0001) and higher satisfaction with information received (adjusted mean difference=2.74, p=0.01), compared to patients in the male-surgeon group. Patients in the female-surgeon group also reported greater satisfaction with overall breast reconstruction outcome (adjusted mean difference=2.91), though this finding only approached statistical significance (p=0.059).

CONCLUSION: Based on our findings, surgeon gender appears to be one of the many factors influencing PROs in breast reconstruction. However, more investigation is necessary to determine why this may be the case: Do patients’ expectations simply vary depending on provider gender, or are these differences in outcomes attributable to variations in practices between male and female surgeons?

REFERENCES:
1. Kerssens JJ, Bensing JM, Andela MG. Patient preference for genders of health professionals. Soc Sci Med. 1997;44(10):1531–1540.
2. Reid I. Patients’ preference for male or female breast surgeons: questionnaire study. BMJ. 1998;317(7165):1051–1060. doi:10.1136/bmj.317.7165.1051.
3. Groutz A, Amir H, Caspi R, Sharon E, Levy YA, Shimonov M. Do women prefer a female breast surgeon? Isr J Health Policy Res. 2016;5(1):259. doi:10.1186/s13584-016-0094-3.
complications such as mastectomy indication, incision pattern, reconstruction type, radiation, and tobacco use at time of surgery. Staged and non-staged cohorts were compared with regards to demographics, operative characteristics and reconstructive outcomes.

RESULTS: Sixteen staged breast reductions (eight patients) were identified that were performed at an average of 5.2 months (range: 3.0–6.8) prior to NSM. Wise-pattern skin excision was utilized in 14 cases (87.5%) and vertical in 2 cases (12.5%) with medial (8 cases, 50%) or superomedial (8 cases) pedicles and an average reduction weight of 407 grams (range: 82–1240). Subsequently, 32 non-staged NSMs (26 patients) were identified that met inclusion criteria as matches for specific complication risk factors. There were no significant differences between staged and non-staged groups with regards to age (44.1 versus 43.9, respectively; p=0.9960) and body mass index (25.0 versus 25.6, respectively; p=0.5648). All NSMs in both groups were prophylactic cases. There were no cases with pre- or postoperative radiation and no patients with tobacco use at the time of NSM in either group. There were no significant differences in mastectomy incisions, the majority of which were inframammary incisions (12 [75%] in the staged cohort and 28 [84.4%] in the non-staged cohort; p=0.3585).

The non-staged group had significantly more tissue expander reconstructions versus immediate implant reconstructions (24 [75%] versus 8 [24%], respectively) compared to the staged group (6 [37.5%] versus 10 [62.5%], respectively) (p=0.0249). Average mastectomy weight in the staged group was 962.1 grams (range: 544–1690) and 789.6 grams in the non-staged group (range: 540–1420) (p=0.0760). Average follow-up was longer in the non-staged group (38.5 versus 25.3 months, p=0.0446).

The rate of major ischemic complications (nipple or mastectomy flap necrosis requiring debridement) was significantly lower in the staged cohort (6.3% versus 34.4%, respectively; p=0.0404). The staged cohort also had lower rates of major mastectomy flap necrosis (0% versus 21.9%), full nipple necrosis (6.3% versus 12.5%) and explantation (0% versus 12.5%), though these complications, major/minor infection and minor ischemic complications were comparable between the groups. Two breasts in both the staged (12.5%) and non-staged (6.3%) cohorts required correction of nipple malposition (p=0.5921).

CONCLUSION: In patients with large breast size, staged breast reduction prior to NSM had significantly lower rates of major ischemic complications compared to non-staged cases after controlling for other risk factors for complications. Staged reduction may be a useful technique for reducing ischemic complications in prophylactic NSM cases with large breast size and an excess skin envelope.

Comparing the Surgical Outcomes of Prophylactic and Therapeutic Mastectomies with Immediate Reconstruction

Presenter: Claire I. Lauer, MD
Co-Authors: Thomas Brouse, pre-med; Marcus B. Fluck, BS; Joseph A. Blansfield, MD; Kaitlyn A. Young, BS; Marie A. Hunsinger, RN, BSHS; James T. Dove, BA; Thomas Bitterly, MD; Christian Kauffman, MD; Tania K. Arora, MD; Joseph G. DeSantis, MD
Affiliation: Geisinger Medical Center, Danville, PA

BACKGROUND: Although prophylactic compared to therapeutic mastectomies followed by reconstruction have been shown to result in improved aesthetics, there has been little research to date examining their comparative surgical outcomes. This study aims to examine the surgical outcomes of patients who underwent mastectomies with immediate reconstruction for breast cancer to patients who underwent the same surgery for prophylactic indications.

METHODS: A retrospective review of females (age ≥18) who underwent mastectomy with immediate reconstruction between January 2007 and January 2017 at two tertiary care centers was conducted. Patients who underwent immediate reconstruction with autologous implants were excluded. Patients were divided into cohorts based upon whether they underwent a bilateral or unilateral procedure, and whether the procedure was therapeutic or prophylactic. Post-operative complications were compared between the cohorts.

RESULTS: A total of 318 patients who underwent mastectomy were identified. About half of the study population, 160 patients, underwent bilateral mastectomy for cancer, 29 patients (9%) underwent bilateral mastectomy...