

PMBR. In this study, we investigate the effect of PEGI on decision regret at 6 months postconsultation.

METHODS: PMBR patients were randomized to PEGI or routine education (control) groups preconsultation. Patients filled questionnaires at baseline (T_0), one week postconsultation (T_1) and 6 months postconsultation (T_2). Outcome measures were assessed using the BREAST-Q Satisfaction with Information at T_1 , Decision Regret Scale at T_2 , and State-Trait Anxiety Inventory (STAI) at T_2 .

RESULTS: Of the 156 patients randomized, 137 patients completed T_1 assessments. Satisfaction with Information was significantly higher at T_1 in PEGI with a median (IQR) of 75 (60, 85) compared to controls with 64 (51, 74) ($p=0.02$). At T_2 , 97 patients completed their outcome measures. Decision regret was low overall, with 19.6%, 40.2%, 40.2% expressing none, mild, or moderate regret, respectively, with no difference between groups. Furthermore, we found that undergoing PMBR was associated with lower decision regret ($r=-0.344$, $p=0.001$). Lower decision regret was also associated with lower anxiety levels at T_2 ($r_s=0.374$, $p<0.001$).

CONCLUSION: Participating in PEGI increased patient reported satisfaction with information but had no effect on long-term decision regret. Irrespective of preconsultation education, lower long-term decision regret was associated with undergoing PMBR and reduced anxiety.

P37. THE VALUE OF PROCESS ANALYSIS: A MULTIVARIATE ANALYSIS SHOWS IMMEDIATE AND SUSTAINED DECREASE IN MORBIDITY AND OPERATIVE TIME

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PURPOSE: DIEP flaps are nuanced, multi-step procedures and it can be difficult for surgeons to focus on where to direct their efforts for true improvement. Recent studies have hinted that operational flow can be a sensitive barometer for safety, efficiency and aesthetic outcomes. Here we critically assess the utility of Process Analysis as a tool in the context of morbidity and operative time.

METHODS: Co-surgeons at a university hospital implemented two, prospective Process Analysis studies to carefully define and evaluate critical steps in DIEP flap reconstruction. During the 9-month period (June 2018 to February 2019), they assessed eight steps of flap harvest and microsurgery. During the 8-month period (January 2020 to August 2020), they expanded their analysis to encompass the entire operation. To evaluate the immediate and sustained impact of Process Analysis, we divided 375 bilateral DIEP flaps into eight, consecutive 9-month intervals completed before, during and after the two studies (April 2015 to August 2020). Using risk-adjusted multivariate regressions with a Helmert contrast, we compared morbidity and operative time between timing intervals.

RESULTS: Timing intervals completed prior to the 1st study had comparable morbidity and operative time. During the 1st study, there is an immediate 63.4% ($P<.05$) decrease in morbidity. The following 27-months show a sustained decrease in morbidity and operative time between each consecutive timing interval. The most significant decrease in operative time occurs during the 2nd study.

CONCLUSION: Process Analysis is a powerful tool capable of generating immediate and sustained decreases in morbidity and operative time.

P38. THERAPEUTIC VS. PROPHYLACTIC BILATERAL MASTECTOMIES: COMPLICATIONS AND TRENDS IN THE UNITED STATES

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PURPOSE: The “Jolie Effect” has resulted in increasing contralateral prophylactic mastectomy (CPM) rates among unilateral breast cancer (UBC) patients. Little is known, however, regarding complication rates of UBC patients undergoing CPM (BM-TP) vs. patients undergoing bilateral prophylactic mastectomy (BM-P).

METHODS: BM-TP and BM-P patients from 2015-2019 were identified in Optum Clinformatics DataMart. Six-month outcomes were assessed, including wound complications, infection, hematoma/seroma, breast pain, fat

necrosis, flap failure, implant failure/removal, other flap/implant complications, and other complications. Multivariable regression models adjusted for age, residence, insurance, race, and Charlson comorbidity score. 2015-2019 CPM trends were also assessed.

RESULTS: Of 9,319 women, 7,114 (76.3%) underwent BM-TP and 2,205 (23.7%) underwent BM-P. In multivariable analysis, BM-TP had higher odds of overall complications (aOR 1.35; $p < .0001$), but no difference was observed among patients who had autologous ($p = 0.1448$) or no breast reconstruction ($p = 0.1530$). Higher odds of overall complications persisted even after controlling for radiation therapy (aOR 1.25; $p = 0.0048$) and chemotherapy (aOR 1.28; $p = 0.0047$), but not after controlling for lymph node surgery (LNS) ($p = 0.7765$). CPM rates rose significantly from 2015 to 2019, with substantial variability between age groups. Younger UBC patients consistently had higher rates of CPM.

CONCLUSION: BM-TP (vs. BM-P) patients face higher odds of overall complications without any difference in certain reconstructive modalities or after controlling for LNS. The historic trend of increasing CPM rates is continuing, particularly among younger patients.

P39. TEXTURED VERSUS SMOOTH TISSUE EXPANDERS - A COMPARISON OF COMPLICATIONS IN 3526 BREAST RECONSTRUCTIONS

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PURPOSE: With increased understanding of BIA-ALCL, a shift away from textured breast devices has occurred. Few

small studies have compared complication rates of textured and smooth tissue expanders (TE). The aim of this study was to compare complication profiles in patients undergoing two stage post-mastectomy breast reconstruction with either textured or smooth tissue expanders.

METHODS: We performed a retrospective review of female patients who underwent immediate breast reconstruction with textured or smooth TEs from 2018-2020 at our institution. Demographics, comorbidities, and neoadjuvant/adjunct therapies were evaluated. Outcomes of interest included seroma, infection/cellulitis, malposition/rotation, exposure, and expander loss. Subgroup analysis was performed to analyze prepectoral/subpectoral cohorts. We used multivariate logistic regression to evaluate the odds of certain complications occurring in textured versus smooth expanders.

RESULTS: We analyzed 3,526 TEs (1,456 textured; 2,070 smooth). Increased utilization of ADM, SPY angiography, and prepectoral expander placement were noted in the smooth TE cohort ($p < 0.001$). Overall, a greater proportion of smooth TEs experienced infection/cellulitis (6.4% vs. 4.3%), malposition/rotation, and exposure than textured TEs (all $p < 0.01$). No significant differences were noted comparing expander loss. In multivariate analysis, textured expanders had lower odds of experiencing infection/cellulitis and malposition/rotation; however, there was no significant relationship between odds of TE loss and expander surface.

CONCLUSION: In the largest study to date examining textured versus smooth TE outcomes, expander surface did not impact TE loss, though differences favored textured expanders overall. Further research is needed examining BIA-ALCL risk with temporary textured TE exposure to improve decision-making regarding use of textured expanders.

P40. THE EFFECTS OF RADIATION STATUS ON RECONSTRUCTIVE FAILURE RATES IN PREPECTORAL AND SUBPECTORAL IMPLANT-BASED BREAST RECONSTRUCTION

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PURPOSE: Along with increasing breast cancer incidence (especially in younger women), annual mastectomy rates