polysomnography. Average gestational age was 37.8 weeks. While average APGAR was 8.1, 3 patients (10%) were intubated at birth. Average GILLS Score was 2.3. Patients underwent MDO at an average of 44 days of age [range 11–395], and were distracted an average of 17.3 mm [range 12–20.] Most patients were extubated in the operating room, and all but two patients (6%) were on room air at most recent follow up. Degree of advancement was positively associated with postoperative oxygen saturation (R 0.543, p<0.03.) The two patients receiving supplement oxygenation at follow up carried syndromic diagnosis and had undergone tracheostomy. Three patients were taking oral nutrition preoperatively (10% taking oral nutrition), while all but three patients were taking oral nutrition at most recent follow up (90% taking oral nutrition.) Preoperatively, apnea-hypopnea-index (AHI) was 23.7; obstructive-apnea-hypopnea-index (OAHI) was 21.3; average oxygen saturation was 94.5% with a nadir averaging 77.7%. Postoperatively this improved to AHI of 8.6, OAHI of 6.0, average oxygen saturation of 96.1% and nadir of 83.7% (p<0.05 pre- versus postoperatively.) Average follow up was 18 months following MDO.

CONCLUSION: When managed with a rigorous protocol for preoperative workup and selection, management of patients with symptomatic PRS with MDO demonstrates great success in improving airway status. Most patients required no further airway intervention, and transferred to oral feeding. Future studies will include multi-institutional investigation to increase power, and long-term investigation of mandibular growth and morphology for these patients.

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Less is More: The Use of Liposomal Bupivacaine in Patients Undergoing Autologous Breast Reconstruction Reduces the Need for Narcotics While Improving Pain Outcomes

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PURPOSE: Enhanced recovery after surgery (ERAS) is a paradigm for improving perioperative care by implementing a series of interventions that decreases hospital length of stay and lowers opioid consumption. In plastic surgery, as in other fields, specific interventions are now routinely performed perioperatively to achieve these goals; namely, multimodal pain management regimens are used. The use of direct injection of liposomal bupivacaine (Exparel) intraoperatively has recently garnered interest due to its long half-life and effectiveness in postoperative pain control, thus minimizing the need for narcotics. This leads to early mobilization, shorter hospitalizations, improved quality of life and patient satisfaction. Direct injection of Exparel to the abdominal wall during abdominally based autologous breast reconstruction is particularly advantageous for early postoperative pain control. This study aims to determine the effectiveness of Exparel in postoperative pain control in patients undergoing abdominally based breast reconstruction measured by patient reported visual analog scales (VAS).

METHODS: In this study, 155 patients underwent deep inferior epigastric perforator (DIEP) flap breast reconstruction. As part of our enhanced recovery after surgery (ERAS) protocol, patients received Ketorolac and Tylenol postoperatively with narcotics used for breakthrough pain. Of the total patients, 115 patients had Exparel directly injected into the abdominal fascia intraoperatively, and the remaining 40 patients had no Exparel injected. Pain scale measuring 1–10 (10=most pain) was used to measure pain in the post-anesthesia care unit (PACU) immediately after surgery, and then every twelve hours thereafter until postoperative day three. Additionally, age, demographics, comorbidities, hospital length of stay (HLOS), pain regimen, opioid consumption and total complications were reviewed in both groups.

RESULTS: In a multivariate repeated measures test, there was a significant improvement of reported pain as measured by VAS and a shorter HLOS in patients in the group that received Exparel intraoperatively (p<0.001, p<0.05, respectively). In the group that did receive Exparel, the mean VAS score was 2.5 (95% CI=2.111–2.869, SD=0.191), whereas the group that did not receive Exparel, the mean VAS score was 3.6 (95% CI=3.079–4.157, SD=0.272). The HLOS for the Exparel group was 3.7 versus 4.0 in the group that did not receive Exparel (p<0.05). There was a lower rate of use of patient controlled analgesia (PCA) in the group that received Exparel (p<0.05). Both groups had similar rate of use of Ketorolac, age, comorbidities and overall complications.
CONCLUSION: Postoperative subjective pain reports measured by VAS scores by patients undergoing DIEP flaps for breast reconstruction were significantly improved with the use of intraoperative Exparel. In addition, there was a statistically significant decreased HLOS and lower rate of PCA use in the cohort that received Exparel.

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Understanding Patient Expectations of Lymphedema Surgery

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INTRODUCTION: Patients with lymphedema refractory to medical treatment often have unrealistic expectations for lymphedema surgery. The purpose of this study was to assess patient expectations following lymphedema surgery.

METHODS: Patients presenting to clinic for initial evaluation for lymphedema surgery since January 2017 were offered to complete a survey designed to evaluate their expectations for limb appearance, limb function, and overall well-being following lymphedema surgery. The patients were instructed to score each item utilizing a 5-point scale for improvement (5-complete; 4-significant; 3-moderate; 2-mild; 1-no improvement). No score was given if the patient answered “does not apply” to a question or left it blank. A mean total expectation score was calculated, which was then used to estimate the effects of pre-operative variables on patient expectations using multiple regression analysis.

RESULTS: A total of 21 females and 2 males completed the survey with a mean age of 60 (36–80, SD 13.5) years. The upper limbs were affected in 10 and lower limbs in 13 patients. Physicians were the initial source of information about lymphedema surgery as a potential treatment option in 10 patients (43%), whereas 8 (34.8%) patients initially learned about lymphedema surgery from non-physician health care professionals, 1 (4.3%) from family/friends, and 4 (17.4%) from the internet. Based on prior experience with non-lymphedema specialist physicians, only four (17.3%) patients believed physicians had excellent or good knowledge about the utility of lymphedema surgery as a treatment strategy, whereas two (8.7%) thought they had fair knowledge, and 13 (56.5%) thought they had poor knowledge. The mean expectation score for improvement in limb appearance was 3.7 (2.5 - 5.0, SD 0.77), limb function 3.5 (1.0 - 5.0, SD 1.3) and overall well-being 3.4 (1.5 - 5.0, SD 1.02). The mean total expectation score following lymphedema surgery was 3.5 (2.0 - 5.0, SD 0.85). Multiple regression analysis showed that the patients’ level of education (p - 0.045), disease duration (p - 0.027) and the method of first learning about lymphedema surgery (p - 0.038) had a statistically significant impact on the patients’ expectation for lymphedema surgery. The total mean expectation score was inversely related to the patient’s level of education and learning about lymphedema surgery from non-physicians. Additionally, disease duration had direct relationship with the patient’s total mean expectation score.

CONCLUSIONS: Early data suggest that most patients learn about lymphedema surgery from non-physicians late in their disease course with many expecting complete or significant improvement of lymphedema-associated symptoms with surgery. It appears that the level of patient education, source of information and disease duration may impact patient expectations. Most patients also believed that non-lymphedema specialist physicians had fair or poor knowledge about lymphedema surgery as a treatment strategy for lymphedema. These findings raise a concern for possible patients’ unrealistic expectations for lymphedema surgery which may be in part due to the lack of knowledge among physicians about surgical treatment options of lymphedema.

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Outcomes Analysis of Goldilocks Mastectomy and Breast Reconstruction: The Mayo Clinic Experience

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PURPOSE: The Goldilocks mastectomy procedure involves local contouring of completely autologous breast tissue created by preserving and de-epithelializing the residual mastectomy flap. This technique provides patients...