levels on the MPQ compared to TE/I patients two-years postoperatively, an important point to consider during preoperative counseling. The presence of preoperative pain was also a risk factor for CPSP. While multiple studies in recent years have focused on the widespread and under-reported prevalence of post-mastectomy CPSP, only 10% of the sample had moderate-to-severe pain at two years. Therefore, approximately 90% were either pain-free or living with a level of pain that would not be expected to interfere with daily function. Overall, our data suggest that CPSP for this cohort may be of less clinical concern than previously described, and reports of persistent pain after breast reconstruction may not necessarily reflect surgery-induced pain.

The Effect of Intraoperative Nerve Blocks on Patient-Centered Outcomes after Tissue Expander Breast Reconstruction: A Prospective, Double-Blinded, Randomized Controlled Clinical Trial

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INTRODUCTION: Our study represents the first level I evidence to assess whether intraoperative nerve blocks improve the quality of recovery from immediate tissue expander/implant (TE/I) breast reconstruction.

METHODS: A prospective, randomized, double-blinded, placebo-controlled, clinical trial was conducted in which patients undergoing immediate TE/I breast reconstruction were randomized to either: 1) intraoperative intercostal and pectoral nerve blocks with 0.25% bupivacaine with 1:200,000 epinephrine and 4 mg dexamethasone or 2) sham nerve blocks with normal saline. Surgeon, patient and researchers collecting postoperative data were blind to group allocation. Quality of recovery (QoR 40), pain score, and opioid use in the postoperative period were compared between groups using the Mann-Whitney’s U test. Fisher’s exact test was used between categorical variables. Power analysis ensured 80% power to detect a 10-point (clinically significant) difference in QoR 40.

RESULTS: 47 patients were enrolled. Age, BMI, laterality, mastectomy type, and lymph node dissection were similar between groups. There were no statistical differences in quality of recovery, pain burden as measured by visual analog scale, or opioid consumption between groups at 24 hours following surgery. Mean global QoR scores were 169 (range: 155–182) for the treatment arm and 165 (range: 143 to 179) for the placebo arm (p = 0.36), indicating a relatively high quality of recovery in both groups. There was less total narcotic required by the treatment group compared to placebo in both PACU (8 v. 17 morEq, p = 0.26) and on the inpatient unit (92 vs. 114, p = 0.31), though these differences were not statistically or clinically significant. Ten patients in the placebo group and six patients in the treatment group required anti-emetic use postoperatively, P = 0.56. Length of hospital stay averaged 1 day in both groups. There were no adverse events or injection-related complications.

CONCLUSION: While intraoperative nerve blocks can be a safe and effective adjunct to a comprehensive post-surgical recovery regimen, our results indicate no difference in quality of recovery between patients who received intraoperative intercostal and pectoral nerve blocks with bupivacaine and dexamethasone compared to those who received sham placebo injections.

Prospective Randomized Blinded Trial Investigating Pain Control and Length of Stay Measures with Transversus Abdominis Plane Block Performed with Liposomal Bound Bupivacaine (Exparel®) in Women Undergoing Mastectomy with Abdominal-Based Reconstruction

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**INTRODUCTION:** Abdominally-based tissue has become the preferred technique for many women with breast cancer who are underdoing a mastectomy and do not desire implant-based reconstruction. However, the additional abdominal dissection results in increased pain post-operatively, requiring additional narcotic usage. It has been our mission to improve pain control following this reconstruction with the aims of facilitating patients’ recovery while decreasing narcotic usage, hospital stays and overall treatment costs. The transversus abdominis plane (TAP) block uses a local anesthetic to block the nerves supplying sensation to the abdominal wall. Bupivacaine is the most commonly used anesthetic and can be injected plain or as a newer liposomal formula (Exparel®), which has sustained release and lasts three to four days. It is not currently known if either of these delivery methods provides a better pain relief.

**METHODS:** IRB approval was granted to recruit women undergoing mastectomy with abdominally-based tissue reconstruction to be randomized to one of two study groups: a Transversus Abdominis Plane (TAP) block performed with either bupivacaine or liposome bound bupivacaine (Exparel®), a sustained relief pain medication. A retrospective control cohort consisting of six consecutive previously reconstructed patients who did not receive a TAP block were also identified. Pain was assessed using a subjective 1–5 pain scale, both at rest and after coughing, an abdominal specific assessment. Pain, nausea, emesis and activity were assessed at six, twelve, twenty-four, thirty-six and seventy-two hours. Total narcotic usage was calculated for hospital stay.

**RESULTS:** From 2016, a total of sixteen patients have been enrolled: Exparel® (eight) and bupivacaine (eight). Patients who received Exparel® had a shorter average length of hospital stay as compared to the bupivacaine and control groups (4, 4.6 and 4.8 days). The Exparel® group demonstrated better sustained subjective pain control across time points both at baseline and during coughing. Oral, intravenous, and total narcotic usages (mg/body weight/day) were significantly less in the Exparel® group compared to the bupivacaine and control groups.

**CONCLUSION:** Our preliminary results suggest that delivering Exparel® via a TAP block in abdominal-based breast reconstruction can result in decreased hospital stays and narcotic usage with improved pain control.

**Post-Operative Pain Control Following Alloplastic Breast Reconstruction with Muscle Relaxer: A Randomized Controlled Trial**

**Presenter: Becher Alhalabi, MD, MHPE**

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**INTRODUCTION:** Patients suffer significant acute postsurgical pain following mastectomy and prosthetic reconstruction routinely mandating high oral opioid dose following hospital discharge. The purpose of this study is to evaluate the influence of muscle relaxers on pain control following breast reconstruction with prosthesis in addition to the use of oral opioids prescribed post operatively following hospital discharge.

**METHODS:** Randomized controlled trial comparing pain control following alloplastic breast reconstruction with muscle relaxer Cyclobenzaprine (intervention group) versus pain control following alloplastic breast reconstruction without muscle relaxer (control group). Patients met inclusion criteria and agreed to participate were included. Consent forms in both English and French languages were provided. The patients were randomly assigned to either group. Total of thirty patients participated in the study, fifteen patients in each group. Outcomes measured include, patient reported visual analog scale (VAS) pain scores day 1, 2 and 3, and the total number of narcotic pills taken within the 1stthree days at home following discharge from the hospital were recorded and subjected to the mean and standard deviation. Student T test was used for comparison; multiple and single linear regression was used to assess different factors on the outcome. A p value <0.05 is considered statistically significant.