radiated side (p=0.015). In a cohort of non-BRAVA patients, reconstruction (compared to augmentation) was associated with necrosis (p=0.036).

CONCLUSION: In this study, increased rates of fat necrosis were associated with volumes greater than 500cc, SIEF, radiation, and non-BRAVA reconstruction.

Liposomal Bupivacaine Reduces Postoperative Narcotic Use in Patients Undergoing Abdominal-Based Autologous and Implant-Based Breast Reconstruction

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PURPOSE: Treatment of post-operative pain after breast reconstruction remains a significant challenge for plastic surgeons. Liposomal bupivacaine (LB, Exparel Pacira Pharmaceuticals, Inc., Parsippany, NJ) has been proven to effectively relieve pain in the immediate postoperative period. The purpose of our study is to explore the effects of intraoperatively delivered LB on postoperative narcotic use in women undergoing autologous and implant-based breast reconstruction.

METHODS: Patients undergoing abdominally-based autologous reconstruction (n=37) or implant-based reconstruction (n=20) from August 2015 to January 2016 were injected with 266 mg of liposomal bupivacaine in defined locations along the chest wall, targeting intercostal nerves and incision sites. Patients undergoing autologous reconstruction additionally received a transversus abdominis plane block intraoperatively. All patients received patient controlled analgesia (PCA) and were transitioned to oral pain medication in the early post-operative period. Our previously published data on post-operative narcotic use after breast reconstruction, served as our control cohort. Patient-reported visual analogue pain scales, number of PCA attempts, and oral narcotic use were measured as primary outcomes. We modeled postoperative visual analogue scales, PCA attempts, and postoperative narcotic use over time using spline graphs for comparison between patients receiving LB and those who received traditional pain regimens.

RESULTS: Total narcotic use in the immediate postoperative period is significantly decreased in patients who underwent autologous-based or implant-based reconstruction and received LB compared to those who did not receive LB (p<0.001). Oral narcotic use in the immediate postoperative period is significantly decreased in patients who underwent autologous-based or implant-based reconstruction and received LB compared to those who did not receive LB (p<0.001). There were no differences in self-reported visual analogue scale scores between treatment and control groups.

CONCLUSION: This study demonstrates that patients undergoing both implant-based and autologous-based breast reconstruction, who receive regional block with LB, use significantly fewer narcotics.

Current Trends and Controversies in Breast Augmentation

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BACKGROUND: An ASPS member survey was conducted to study common practices in breast augmentation and assess current attitudes regarding new technologies and current controversies.

METHODS: A 35 item electronic questionnaire was sent to the entire active ASPS membership and was divided into five parts: current controversies, new technologies, common practices, secondary procedures, and member demographics.

RESULTS: There were 1,067 respondents. Fifty percent of surgeons never use anatomically shaped implants and another 42 percent do so less than half the time. Autologous fat is infrequently used as a primary technique but more often as a supplemental technique. Approximately seven percent report a case of anaplastic large cell lymphoma in their practice. Eighty-five percent do not use preoperative 3-D imaging. More than half of surgeons use ADM in secondary procedures for capsulorrhaphy buttress, ripples, and capsular contracture. Approximately half do not use insertion funnels. Preoperative sizing with silicone implants, inframmary incisions, partial submuscular pockets, and smooth silicone implants over 300 cc are dominant practice preferences. Postoperative massage is still popular with over half of respondents. Just over half do not use pharmacological agents for capsular contracture and those that do use them at early onset. Capsular contracture and size change were the most frequent reasons for reoperation. Capsular contracture
is typically treated with anterior capsulectomy the first time, and either total capsulectomy or anterior capsulectomy with ADM use when recurrent. Close to half of respondents perform less than 50 breast augmentation procedures yearly.

CONCLUSION: There is an established most common approach to breast augmentation among respondents. Most surgeons are slow to embrace controversial practices and to adopt new technologies, although ADM use is becoming more popular. The seven percent incidence of ALCL was noteworthy.

PARAVERTEBRAL REGIONAL BLOCKADE IS ASSOCIATED WITH REDUCED OPIOID REQUIREMENTS AND LESS POST-OPERATIVE NAUSEA AND VOMITING IN REDUCTION MAMMAPLASTY

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PURPOSE: We evaluate the safety and effectiveness of paravertebral block (PVB) as an adjunct to general anesthesia (GA) for reduction mammoplasty.

METHODS: Patients from 2011–2015 who underwent reduction mammoplasty were examined by anesthesia modality: GA alone and GA + PVB adjunct. Demographic data, intra-operative and 6 hour post-operative opioid requirements, phase 1 and 2 pain scores, post-operative nausea and vomiting (PONV), and total anesthesia time were collected and analyzed with contingency tables and comparisons of means and medians for categorical and continuous variables, respectively.

RESULTS: We identified 264 patients who underwent reduction mammoplasty. Of these, 209 received GA alone and 55 received GA + PVB adjunct. Intra-operative opioid requirements were lower for those receiving PVB compared to GA alone (mean morphine equivalent doses of 44mg versus 35mg, p<0.05). There was no difference in post-operative opioid requirements (mean doses of 30 versus 29mg, p>0.05). Phase 1 pain scores were significantly lower for those receiving PVB compared to GA alone (mean 2.8 vs 3.9, p<0.05), as were phase 2 scores (mean 3.0 vs 4.2, p<0.05). PVB was associated with considerably less PONV (14% versus 33%, p<0.05). PVB was associated with higher mean anesthetic time compared to GA alone (271 minutes vs 236 minutes; p<0.05). There were no anesthetic complications in the PVB group.

CONCLUSIONS: By mitigating factors known to be associated with unplanned hospital admission and poor patient satisfaction, paravertebral regional blockade is an attractive anesthetic adjunct to breast surgery, particularly in the ambulatory setting.

FIVE-YEAR SAFETY DATA FROM THE BREAST IMPLANT FOLLOW-UP STUDY: COMPARISON OF SILICONE IMPLANTS WITH NATIONAL NORMS AND SALINE IMPLANTS IN MORE THAN 48,000 SUBJECTS FOLLOWING BREAST AUGMENTATION

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PURPOSE: A large, multicenter, 10-year study is being conducted as part of an FDA requirement for post-approval data on safety concerns, particularly systemic diseases, thought to be associated with silicone-filled implants.

MATERIALS AND METHODS: This study compared long-term safety in women following primary breast augmentation or revision-augmentation using Natrelle silicone implants versus national norms and saline implants. Targeted long-term outcomes include connective tissue diseases (CTDs), neurologic diseases, cancer, and suicide. For adverse events (AEs) occurring at national norm rates of 2.85/100,000 person-years to 1.2/10,000 person-years, the silicone cohort was compared with national norms. Adjusted relative risk (RR) of AEs was calculated for silicone versus saline cohorts.

RESULTS: 42,873 subjects underwent primary augmentation (29,148, silicone; 13,725, saline) and 6837 subjects underwent revision-augmentation (5901, silicone; 936, saline) and were included. After ≥5 years of follow-up (>128,000 person-years; augmentation cohort, >24,300 person-years, revision-augmentation cohort), target AE rates were not significantly greater for the silicone cohort versus national norms, including cervical/vulvar cancer (augmentation: 17.1 [90% CI: 11.6–24.4] events per 100,000 person-years; revision-augmentation cohort).