Botulinum toxin Type A in Facial Aesthetics”. Subjects were blinded as to which method was used. All patients received 20 units of BT in the glabellar region (Botox, Allergan, Irvine, CA). Follow-up photographs and DISC analysis were completed weekly for the first month, then monthly up to six months post-injection. The Facial Lines Outcome 11-item survey (FLO-11) survey was also administered at each follow-up. After 6 months, subjects were crossed over and were re-injected utilizing the other method. Follow-up for the second injection was the same as the first. Statistical comparison was completed via matched sample T-test.

RESULTS: Six subjects (Group I) were injected utilizing DISC for the first arm of the crossover while the remaining four were in Group II. On average, the DISC analysis provided 4.8 (range 4–6) injection sites, while the practitioner chose 5 (range 4–7) injections sites. When matched by week, the mean FLO-11 score was better in patients injected via DISC (p=0.0003). The degree of paralysis was also greater in these patients (p=0.003). Furthermore, DISC directed injection maintained paralysis for a longer period of time (20 versus 18 weeks) and patients were less likely to return to their baseline movement within the six month follow up period (p=0.03)

CONCLUSION: Due to a lack of standardized practice, there is often significant variability in the site of injection and number of units injected between different practitioners. Currently, there exists no evidence-based tool that adequately addresses this issue. This study demonstrates the improved benefits of utilizing DISC in determining the optimal site of BT injection. Utilizing DISC may lead to a greater degree of paralysis, longer duration of effect, and increased patient satisfaction.
CONCLUSION: Our study demonstrated significantly lower complication rates and drain duration among the ciNPT group. These results may translate to improved patient outcomes and efficient use of resources in a hospital setting. Further studies are needed to corroborate the findings in our study.*ciNPT=PREVENA™ Therapy

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Intraoperative Nerve Blocks for Tissue Expander Breast Reconstruction: Results of a Prospective, Double-Blind, Randomized, Placebo-controlled Trial

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PURPOSE: We investigate whether intraoperative nerve blocks improve the quality of recovery from immediate tissue expander/implant breast reconstruction. No current Level I or II evidence addresses this question.

METHODS: A prospective, randomized, double-blinded, placebo–controlled, clinical trial was conducted in which patients undergoing immediate tissue expander/implant based 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. The 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.

RESULTS: 45 total subjects were enrolled. There were no statistically significant differences in quality of recovery, pain burden, or opioid consumption between groups at 24 hours following surgery. The difference in overall QoR 40 score approached clinical significance, and data trended towards reduced total opioid consumption and better pain control in PACU in the treatment group.1 Both groups had a good quality of recovery. There were no injection-related complications.

CONCLUSIONS: Intraoperative nerve blocks can be a safe and effective adjunct to a comprehensive regimen to improve quality of recovery and pain control following tissue expander/implant breast reconstruction.

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A Cost-utility Analysis Comparing Large Volume Displacement Oncoplastic Surgery To Mastectomy With Single Stage Implant Reconstruction In The Treatment Of Breast Cancer

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PURPOSE: For larger cancers in moderate to large breast sized women, breast surgical cancer treatment may include large volume displacement oncoplastic surgery (LVOS) or mastectomy with single stage implant reconstruction (SSIR). Often in the case of LVOS, reduction mammoplasty designs are used in the oncoplastic reconstructions with a contralateral symmetry operation. The goal of this study was to investigate the cost-utility between LVOS versus SSIR to determine which approach is cost-effective in the treatment of breast cancer. There has been no previous cost nor clinical effectiveness analysis comparing these techniques.

METHODS: A review of the literature was performed to calculate probabilities for clinical outcomes for each surgical option (LVOS versus SSIR), and to obtain utility scores that were converted into quality adjusted life years (QALYs) as measures for clinical effectiveness. For a cost assessment pertaining to outcomes in each surgical option, average national Medicare payment rates using DRG and CPT codes were used. Radiation was assumed as adjuvant treatment in the LVOS arm. A decision analysis tree was constructed comparing LVOS to SSIR into which these probabilities, QALYs and costs were placed. An incremental cost-utility ratio (ICUR) was calculated comparing the difference for both surgical options in costs by the difference in clinical-effectiveness to see which surgical option was more cost-effective. To validate our results, we performed one-way sensitivity analyses in addition to a Monte-Carlo analysis.