3D Breast Imaging For Cosmetic Breast Surgery: Does 3D Imaging Improve Patient Reported Outcomes In Primary Breast Augmentation?

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PURPOSE: Our purpose was to evaluate the impact of 3D imaging during preoperative consultation on patient reported outcomes in primary breast augmentation surgery using the Breast Q. We hypothesized that 3D imaging would facilitate patient education and surgical planning and improve patient reported outcomes.

METHODS: We performed a prospective, randomized cohort study of women ≥ 18 years desiring elective breast augmentation surgery. The study includes a non-randomized cohort of patients who chose to have standard evaluation and 3D simulation. IRB approval was obtained through Washington University in St. Louis/Barnes-Jewish Hospital. Our intended analysis is for 100 patients to be recruited into the randomized cohort. Patients with greater than grade II ptosis were excluded. A research coordinator performed randomization. Patients were assigned to the control group (pre-operative evaluation with standard simulation with sizes alone) or the intervention group (standard simulation and 3D imaging simulation). Blinding was not possible as 3D imaging simulation was done by the operating surgeon in preoperative consultation. Patients were asked to complete an electronic survey in which they were queried on overall satisfaction with pain control, highest post-operative pain level, current pain level, number of days requiring opioid pain medication, reason for discontinuing medication, use of non-opioid medication for pain control, adverse effects, number of tablets consumed, and number of tablets remaining. Responses were also stratified by type of procedure performed.

RESULTS: 30 women were examined with: (1) mean age of 37, (2) 93% silicone implants (3) 58% of implants <400 cc and 42% ≥ 400cc (4) 63% Allergan and 37% Sientra manufactured (5) 46% anatomic, shaped and 54% round implants. Half were randomized and two thirds were simulated. No significant difference was detected for satisfaction with breasts (p < 0.52), psychological well-being (p<0.91) or sexual well-being (p<0.93). No significant difference was detected for satisfaction with outcome (p<0.19) or satisfaction with information (p<0.74). There were, however, increasing patient expectations and demand for 3D simulation as a part of the pre-operative evaluation as more patients opted for the non-randomized cohort with increasing time of the study. All 15 non-randomized patients requested 3D simulation.

CONCLUSIONS: 3D breast imaging used in preoperative simulation for primary breast augmentation is not associated with improved patient reported outcomes as measured by the Breast Q. However, patients in our practice increasingly expect 3D imaging to be a part of their pre-operative visit and 3D imaging may be a useful marketing tool in building an aesthetic breast surgery practice.

Opioid Consumption Following Outpatient Plastic Surgery

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BACKGROUND: A rise in opioid abuse has led to increases in dependency, overdose, and healthcare resource utilization. Currently, there are no data detailing the need for opioids in post-operative pain management following outpatient Plastic Surgery procedures. The goal of this study was to evaluate patient satisfaction, opioid consumption, and physician prescribing practices following these procedures to provide evidence-based strategies for post-operative pain control.

METHODS: Patients who underwent outpatient Plastic Surgery procedures were identified at their first post-operative visit. Included were all English-speaking patients aged 18 to 90 who underwent elective, outpatient procedures. Those with pre-existing pain disorders were excluded. Patients were asked to complete an electronic survey in which they were queried on overall satisfaction with pain control, highest post-operative pain level, current pain level, number of days requiring opioid pain medication, reason for discontinuing medication, use of non-opioid medication for pain control, adverse effects, number of tablets consumed, and number of tablets remaining. Responses were also stratified by type of procedure performed.
**RESULTS:** Sixty patients completed the survey. The majority (92%) reported overall satisfaction with pain control. On a scale of 1–10, the average worst post-operative pain score was 6.4. The average pain score at the first post-operative visit was 2.3, with only 25% still taking opioids at that time. Opioids were discontinued in 58.6% of patients because they no longer had pain, in 20.7% because they had mild pain controlled with other analgesics, in 13.8% because they ran out of medication, and in 6.9% because they experienced intolerable side effects. Patients who underwent first-stage tissue expander-based breast reconstruction were prescribed the most opioids, but patients who underwent facial fracture repair consumed the most opioids. Patients who underwent soft tissue excisional procedures were prescribed the least and consumed the least number of tablets. The average number of tablets prescribed was 30, while the average number of tablets consumed was 17.

**CONCLUSION:** A balance between pain control and responsible prescribing of narcotic pain medications must be achieved. In most cases, pain was well-controlled with high rates of patient satisfaction. On average, patients received nearly twice the amount of pain medications that were used. This study can be used to guide prescribing practices of narcotic analgesics amongst Plastic Surgeons.

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**Approach to Management Using Evidence Based Medicine: Proliferative Breast Lesions Among Reduction Mammoplasty Specimens**

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**INTRODUCTION:** Given the reported lifetime estimate of 1 in 8 women becoming diagnosed with breast...