



# Abstract 115: Effect of Surgical Complications on Health-Related Quality of Life Outcomes in Adolescents and Young Women Following Reduction Mammoplasty

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List of jurisdiction where plastic surgery malpractice litigation occurred.

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114

### **Impact of Combined Gynecologic Procedures on Two Staged Implant-Based Breast Reconstruction in Patients with Genetic Cancer Risks**

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**PURPOSE:** Patients sometimes undergo combined mastectomy, risk reducing gynecologic procedures, and breast reconstruction during one OR visit. We explored this method's impact on surgical outcomes in patients with and without genetic cancer risks (GCR).

**METHODS:** We retrospectively reviewed 542 breast reconstructions, performed by two surgeons (SST,NTH) at one tertiary care academic hospital from January 2012 to February 2016. Patients choosing implants and completing reconstruction (n=269) were split into 4 groups based on GCR status and combined gynecologic procedures (GYN) status: GCR+, GYN+ (Group1,n=26); GCR+, GYN- (Group2,n=41); GCR-, GYN+ (Group3,n=5); GCR-, GYN- (Group4,n=197). GCR included mutations in BRCA, CHEK2, PALB2, Li-Fraumeni Syndrome, and others. One-way ANOVA (df between groups = 3, df within groups = 265) and Tukey HSD was performed to compare differences in the percentages of patients with necrosis requiring surgery, infection requiring IV antibiotics, seroma, and device exchange.

**RESULTS:** Co-morbidities and age were equivalent between groups, except for Group2 (42yrs) and Group4(48.5yrs), p=.02. Rates of infection requiring IV

antibiotics (p=.88), necrosis requiring surgery (p=.95), seroma (p=.82) and device exchange (p=.53) were equivalent. There were no significant differences in the mean number of complication-related surgeries before (p=.95) or after (p=.89) implant, revision surgeries (p=.27), or total surgeries (p=.45). There were no significant differences in the percentages of patients undergoing at least one complication-related surgery before implant (p=.64), at least one complication-related surgery after implant (p=.93), or at least one revision surgery (p=.23).

**CONCLUSIONS:** When comparing patients that completed implant based reconstruction, combining risk-reducing gynecologic procedures with mastectomy and reconstruction into one OR visit does not appear to negatively impact reconstructive outcomes. Subgroup analysis revealed no significant differences in complication rates. Patients who would benefit from combined risk-reducing gynecologic procedures can be encouraged to do so.

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115

### **Effect of Surgical Complications on Health-Related Quality of Life Outcomes in Adolescents and Young Women Following Reduction Mammoplasty**

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**PURPOSE:** Although reduction mammoplasty is associated with improved health-related quality of life (HRQOL), surgical treatment for younger patients remains controversial. This study measures complications following reduction mammoplasty in adolescents and young women, and the impact of surgical complications on HRQOL outcomes.

**METHODS:** Clinical evaluations were performed and validated surveys were administered to skeletally mature patients undergoing reduction mammoplasty: Short-Form 36v2 (SF-36), Rosenberg Self-Esteem Scale (RSES), Breast-Related Symptoms Questionnaire (BRSQ), and Eating-Attitudes

Test-26 (EAT-26). Subjects completed surveys at baseline and postoperatively at 6 months, 1 year, 3 years, and 5 years.

**RESULTS:** Three-hundred and thirty subjects were included in analyses. The mean age of subjects at time of surgery was 17.9 years. Less than 1% of subjects experienced a major complication and roughly 20% experienced at least one minor complication, commonly: hypertrophic scarring, minor infection or wound dehiscence, or persistent altered breast sensation. Complication rates did not vary by BMI category, age, or amount of tissue resected. Patients demonstrated significant postoperative improvements in all SF-36 domains (physical functioning, role-physical, general health, bodily pain, vitality, social functioning, role-emotional, mental health), and on the RSES, BRSQ, and EAT-26. HRQOL outcomes largely did not vary by complication status.

**CONCLUSION:** Although major complications following reduction mammoplasty are rare in adolescents, minor complications are common. Complication rates in this sample did not vary by age, BMI, or resection mass. When complications occurred, patients experienced significant and similar HRQOL gains postoperatively as those patients without complications. Providers should be aware of the benefits reduction mammoplasty can provide younger macromastia patients, regardless of complication status.

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116

## Literacy Analysis of Spanish Online Resources for Breast Reconstruction

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**PURPOSE:** Health literacy studies indicate that low literacy can prevent patients from actively participating in health discussion and decision-making process. In the U.S., those who speak English as a second language may be particularly vulnerable. There is a paucity of research examining the match or mismatch between Spanish speaking patients'

literacy and the demand of existing health materials. The aim of this study is to evaluate breast reconstruction online resources available for the Spanish speaking population in the United States through metrics developed for readability, suitability and cultural sensitivity.

**METHODS:** A search for the term 'Reconstrucción de seno' (Translation: Breast Reconstruction) was conducted using Google. The 10 most easily accessible institutional/academic websites (e.g., government entities, academic centers, nonprofit organizations), and media/private websites (e.g., blogs, news sites, private organizations) were identified. Each website was assessed for readability (SOL Readability Formula and Fry Readability Formula), understandability/actionability (PEMAT: the Patients Education Materials Assessment Tool), suitability (SAM: the Suitability Assessment of Materials tool), cultural sensitivity (CSAT: the Cultural Sensitivity Assessment Tool), numeracy (Matrix of Numerical Complexity and Comprehension Hierarchy), and for website content organization and navigation (Health Literacy Online Guide by the U.S. Department of Health and Human Services). Understandability/actionability, suitability and cultural sensitivity were evaluated by two independent raters and Fleiss-Kappa score as obtained to ensure inter-rater reliability.

**RESULTS:** Readability analysis revealed higher than recommended scores and no significant reading grade level difference between institutional/academic and media/private websites (SOL: 10.4 and 10.8, respectively;  $p=0.78$ . Fry Readability Formula: 9.1 and 9.7, respectively;  $p=0.21$ ). Understandability scores for institutional/academic and media/private websites were 50.6% and 47.1%, respectively ( $p=0.53$ ); actionability scores were 18% and 14%, respectively ( $p=0.67$ ). Suitability was assessed as adequate and, similarly, no difference was found in suitability analysis between institutional/academic and media/private websites (50.2% vs. 49.7%, respectively;  $p=0.92$ ). Cultural sensitivity evaluation yielded adequate score for both types of websites, with no statistically significant difference observed ( $p=0.31$ ). In terms of numeracy analysis, the majority of websites fell into the less complex area of the hierarchy matrix.

**CONCLUSION:** Available breast reconstruction online resources for the Spanish-speaking population are rated too high for the general public on readability. The adequate level in terms of suitability, understandability and cultural sensitivity, along with the low actionability scores, indicate a need for improvement. In addition, there is limited availability of institutional/academic online resources in