and masseter muscle. While, the mean volume of the buccal fat pad is approximately 10 ml, the main physiological function of the buccal fat pad is to fill the masticatory space and act as a cushion for the masticatory muscles. There have been studies on the use of the pedicled buccal fat pad for closure of oroantral or oronasal communications secondary to exodontias and for postsurgical oral defects for malignant lesions. In the fields of aesthetic surgery, the major reason for manipulating the buccal fat pad is to extract these fatty tissues in order to reduce prominent cheeks. Using the buccal fat pads to restore soft-tissue volume for volume-deficient areas is limitedly carried out by using the fat pads in a free graft method. Meanwhile, deficient soft-tissue volume in the malar and midface region causes a broad and flat facial appearance and often is related with the aging process which results in an old- or tired-look. By utilizing the buccal fat pads to the adjacent volume-deficient malar regions, a volume restoring and rejuvenating effect can be easily achieved. As the fat pads can be mobilized as a vascularized flap, concerns on volume resorption that is commonly noticed after conventional free fat transfer methods can be avoided. Also, the use of soft-tissue fillers or alloplastic implants can be avoided. Thus, long-term stability can be assured and its procedural simplicity, with very low complication rates and natural-looking results, encourage surgeons to use the pedicled buccal fat pad as a tool for malar and midface augmentation. This procedure can be easily combined with a reduction malarplasty procedure, as patients with laterally prominent zygomatic bones usually have deficient volume in the anterior malar region. While the lateral projections of the zygoma are reduced by reduction malarplasty, anterior malar volume can be restored concomitantly by utilizing the pedicled buccal fat pad through the same intraoral approach. The buccal fat pad is gently deliveredatraumatically using non-toothed forceps from the masticatory space by blunt dissection while keeping the fascial envelope intact. The mobilized buccal fat pad then is fixed to the volume-deficient area with resorbable sutures.

**Awareness of Breast Asymmetry by Women with Hypoplastic Breasts**

**Presenter:** Norma I. Cruz, MD

**Affiliation:** University of Puerto Rico, San Juan, PR

**INTRODUCTION:** Breast asymmetry is highly prevalent among women with hypoplastic breasts, currently being reported in 88% to 100% of cases.\(^1\)\(^-\)\(^4\) However, the frequency of patient’s awareness of asymmetry has not been compared to the frequency of clinically measured asymmetry.

**METHODS:** Consecutive women with hypoplastic breasts who were considering primary breast augmentation between 12/1/2013 and 12/1/2016 were evaluated. The women were requested, while looking at themselves in the mirror, to report any pre-existing asymmetry of the breasts in four specific areas. The areas evaluated were: the nipple-areola complex, breast mound, inframammary fold and chest wall. The women were examined and breast measurements were performed by the same surgeon and prospectively recorded. A discrepancy greater than 5 mm in distance or greater than 20 ml in volume between the breast measurements was considered as evidence of asymmetry, since it has been reported that smaller differences can hardly be noticed by the naked eye.\(^3\) Comparison between patient-reported breast asymmetry and measured asymmetry was performed. Differences between proportions were compared using the Chi-square test. Results were considered significant when the p value was less than 0.05. This study was approved by the Institutional Review Board.

**RESULTS:** The study evaluated 173 consecutive women with hypoplastic breasts. The mean age was 30 ± 9 years, the mean body mass index was 21 ± 2, and mean bra size was 34-A. Patient-reported asymmetry was significantly lower (p<0.05) than measured asymmetry in every category. The discrepancy between patient-reported breast asymmetry and measured asymmetry for the nipple-areola position was 24%, for the breast mound 21%, for the inframammary fold was 30% and for the chest wall was 11%. The most frequently missed breast asymmetry by patients was that of the inframammary fold. Overall, patients reported some asymmetry in 41% of the cases, while measured asymmetries were found in 95% of the cases, a difference that was statistically significant (p<0.05).

**CONCLUSION:** There is a significant discrepancy between the frequency of patient-reported and measured preoperative breast asymmetry in women with hypoplastic breasts. Patients are often unaware of pre-existing breast asymmetry,
but become critical of any imperfection, expecting perfectly symmetrical breasts after surgery. Such unrealistic expectations result in problems when the asymmetry persists or becomes more pronounced after breast augmentation surgery.

Reference Citations:
1. Rohrich RJ, Hartley W, Brown S. Incidence of breast and chest wall asymmetry in breast augmentation: A retrospective analysis of 100 patients. Plast Reconstr Surg. 2003;111:1513–1519.
2. Yeslev M, Braun SA, Maxwell GP. Asymmetry of Infra-mammary folds in patients undergoing augmentation mammoplasty. Aesthet Surg J. 2016;36:156–166.
3. Liu C, Luan J, Mu L. The role of three-dimensional scanning technique in evaluation of breast asymmetry in breast augmentation: A 100-case study. Plast Reconstr Surg. 2010;126:2125-21-32.
4. Gabriel A, Fritzische S., Creasman C., Bagai W, Mordaunt D, Maxwell GP. Incidence of breast and chest wall asymmetries: 4D photography. Aesthet Surg J. 2011;31:506–510.

Early Assessment of Post-Surgical Outcomes with Pre-Pectoral Breast Reconstruction: A Literature Review and Meta-Analysis

Presenter: Abhishek Chatterjee, MD, MBA
Co-Authors: Maurice Y. Nahabedian, MD; Allen Gabriel, MD, FACS; Steven Sigalove, MD, FACS; Mousam Parekh, MS, Fang Wang, MD, PhD; Leah Griffin, MS; David Macarios, MS
Affiliation: University of Pennsylvania, Philadelphia, PA

INTRODUCTION: Pre-pectoral breast reconstruction is an emerging technique with potential benefits that include reduced pain, early patient recovery and no hyperanimation. There are studies reporting on clinical outcomes with pre-pectoral technique [PP] and comparing it to the dual plane technique [DP] in breast reconstruction. The goal of this study is to provide an early assessment of outcomes following PP breast reconstruction.

METHODS: A comprehensive search was performed using PubMed as well as hand-searching for literature on PP published between 01/01/2010–11/18/2016. Titles and abstracts of identified literature were reviewed against the inclusion and exclusion criteria. Studies reporting on outcomes were included for in-depth review. Patient characteristics, surgical factors and outcomes such as complication rates were extracted from each study. The extracted data were pooled and weighted averages were calculated. Patient characteristics were weighted by number of patients whereas complication rates were weighted by number of breasts. Meta-analysis was performed for studies directly comparing outcomes of PP to DP using the inverse variance weighting method. Weighted mean odds ratio, standard errors and 95% confidence intervals, taking into account study heterogeneity were calculated. Significance level was set at alpha = 0.05.

RESULTS: Ninety-five studies were identified for the initial review; 14 studies were included for in-depth review and data extraction. Of the 14 studies, 7 had direct-to-implant reconstructions and the 11 studies used an acellular dermal matrix (9=ADM only; 2=mix of ADM/synthetics). The review identified 406 PP patients (n=654 breasts). Over 65% patients had prior breast operations and 53% had unilateral breast reconstruction. Eighteen and 31.6% patients had prior radiation and chemotherapy whereas 15.4% and 14.9% had post operative radiation and chemotherapy respectively. The mean follow up was 13 months (range: 6–22). The pooled complication rates were as follows: infection (4.2%), seroma (6.7%), skin necrosis (7.8%) and explantation (4.6%). Hyperanimation with pectoral muscle contraction was not observed following PP reconstruction. Four studies directly compared PP to DP (PP-135 pts [219 breasts]; DP-230 pts [408 breasts]) and were included in the meta-analysis. Early analysis of outcomes demonstrated no significant differences in complication rates between the groups.

CONCLUSION: This study summarized existing literature on PP. Early analysis demonstrates that complication rates between PP and DP may be comparable. High quality studies with longer follow up are needed to further assess outcomes associated with PP.

Acellular Dermal Matrix (ADM) Assisted Implant-Based Immediate Breast Reconstruction with Latissimus Dorsi Flap

Presenter: Sanghun Kim, MD