INTRODUCTION: A great challenge in aesthetic breast surgery is the long-standing result of breast contour and upper pole fullness. Various techniques have been proposed in order to deal with the long-term post-operative ptotic breast shape. This study aims to assess the long-term cosmetic results achieved through author’s technique of mastopexy.

METHODS: Between January of 2012 and December of 2015, 31 women (62 breasts) underwent consecutive bilateral primary mammoplasty performed by a single surgeon for the treatment of breast ptosis (grade 2 or 3) or breast hypertrophy. The assessments considered the degree of satisfaction of patients and the evaluation of the 62 breasts by two referees in a scale from 1 (poor) to 3 (good) with preoperative and postoperative photographs. Each patient could be scored from 2 (poor) to 6 (excellent). The agreement between the referees was measured by Cohen’s Kappa statistics. Patient’s age, Body Mass Index (BMI), number of pregnancies, resected breast volume, and complications were also analyzed. The technique used was performed under general anesthesia. The aesthetic breast reduction/mastopexy, with skin markings designed in a Pitanguy/Wise inverted “T” pattern, proposes a parenchymocutaneous flap tethered to the thoracic wall (simulating a breast implant) supported by a bipedicled pectoralis major muscle flap.

RESULTS: The mean patients’ age was 34 year-old (17–65), the BMI at the time of surgery ranged between 20.76 and 31.38 kg/m² (mean=25.71) and the number of pregnancies ranged between 0 and 3 (mean 0.92). The resected volume of each breast ranged between 0 and 742g (mean 338.92). Three women complained of pain (5 of 62 breasts, 8.1%), 2 women had bilateral dehiscence of vertical scar at the 3rd post-operative week (4 of 62 breasts, 6.5%), one of them being subjected to further surgery, she was a heavy smoker and had bilateral dehiscence after the second procedure as well. 97% of the patients felt satisfied and 82% felt very satisfied with breast shape at about one year after the surgery. The observers mean score was 4.57 (SD 1.72, k=0.83).

CONCLUSION: The mammoplasty performed through an autologous implant supported by a bipedicled pectoralis major muscle flap is safe and was effective for filling the upper pole of the breast and for the maintenance of its shape at about 1 year after mammoplasty.

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One-Stage Augmentation Mastopexy: A Retrospective Ten-Year Review of 1,131 Consecutive Cases

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INTRODUCTION: Although numerous studies supporting simultaneous breast augmentation with mastopexy have been reported, concerns persist among surgeons regarding the safety of this procedure. With increasing frequency, patients are requesting that breast volume and skin tightness be enhanced in a single operative procedure to achieve a desired aesthetic outcome. The purpose of this study was to evaluate the safety and effectiveness of one-stage augmentation mastopexy procedures in primary and secondary cases by analyzing long term complication and reoperation rates.

METHODS: A retrospective analysis of one-thousand, one-hundred and thirty-one consecutive one-stage augmentation mastopexy procedures performed by a single surgeon from January 2006 to August 2016. Patient demographics, operative technique and implant specifications were measured and correlated with surgical outcomes. Complication and reoperation rates were calculated and compared with published reports in the literature.

RESULTS: Of the 1,131 one-stage augmentation mastopexy procedures analyzed, 725 (64%) were
primary and 406 (36%) were secondary in which the patient had one or more previous breast augmentation procedures. Silicone gel implants were utilized in 471 (65%) of the primary and 324 (80%) of the secondary procedures. Operative technique involved a circumvertical or inverted-T mastopexy in 77% (n= 871) and a bilateral mastopexy in 93% of patients. The overall reoperation rate was 14.9% (13.2% of primary and 16.6% of secondary procedures) over a mean follow-up period of 43 months (range 4 months to 121 months). Tissue related complications consisting of recurrent or persistent ptosis and poor scaring were most common at 6.2% (n= 71). Implant related complications requiring a revision were most commonly a result of the patient’s desire to change implant size 3.1% (n=36) and capsular contracture Baker III/IV in 2.8% (n= 32). There were no cases of periprosthetic infection requiring explantation and no significant skin flap necrosis (> 2cm) or nipple areolar loss noted.

CONCLUSION: One-stage augmentation mastopexy can be safely performed with a reoperation rate that is significantly lower than when the procedure is staged. The effectiveness of this procedure is defined by a low complication rate, acceptable aesthetic results, and by minimizing the number of operations for the patient. With appropriate patient selection and operative technique, acceptable outcomes can be achieved safely and effectively.

RESEARCH & TECHNOLOGY SESSION 1

Validation of a CD30 ELISA for the Rapid Detection of Breast Implant Associated Anaplastic Large Cell Lymphoma

Presenter: Summer E. Hanson, MD, PhD
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INTRODUCTION: Breast implant associated anaplastic large cell lymphoma (BI-ALCL) is a rare type of non-Hodgkin lymphoma occurring in the fluid or capsule adjacent to breast implants. Screening of symptomatic patients requires demonstration of large lymphoid cells with uniform expression of CD30 protein on immunohistochemistry. This study investigates a novel, rapid, office-based, and economic in-situ enzyme-linked immunosorbent assay (ELISA) for screening BI-ALCL patients.

METHODS: A commercially available in-situ ELISA was standardized and validated for patients with confirmed BI-ALCL diagnosis with clinical isolates and a laboratory strain. A panel of five pathologically confirmed BI-ALCL patients were screened by serum, plasma, and peri-prosthetic effusion specimens and compared against serum, plasma, and non-neoplastic delayed seromas in six healthy control patients. Statistical analysis demonstrated assay consistency and reliability.

RESULTS: BIA-ALCL serum specimens and all control specimens were tested at full concentration, 1:100, 1:250, 1:500 and 1:1000 serial dilutions. All BIA-ALCL effusions demonstrated CD30 ELISA detection at full and all serial concentrations. BIA-ALCL plasma specimens were weakly positive at full concentration and no activity with serial dilution. BI-ALCL serum specimens and all control specimens were negative at all concentrations.

CONCLUSION: This is the first study to demonstrate a viable alternative to CD30 immunohistochemistry for the screening of BIA-ALCL. A CD30 ELISA represents a novel low-cost screening test, which may be used to screen suspicious aspirations of delayed periprosthetic fluid collections in an office-based setting. This preliminary study demonstrates reliability and efficacy, however prospective testing in an expanded cohort will be required to establish sensitivity and specificity.

Characterizing the Viscoelastic Behavior of Implant Silicone Gels under Physiological Conditions

Presenter: Bavand Keshavarz, PhD
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