

opposed to the risk of infection and the patient's intolerance. The objective of the study was to determine the amount of blood drained after pre-pectoral breast implants.

METHODS/TECHNIQUE: We retrospectively analyzed a cohort of 30 females under 45 years old, submitted to a first aesthetic breast augmentation by pre-pectoral silicone smooth gel implants as solo surgery during 2011 and 2012. Patients with any disease and/or intake of any medication compromising coagulation or bleeding were excluded from this study. All of them were operated by the same surgeon with 20 years' experience in sub-pectoral technique, during 2011 and 2012. The patients were operated with general intravenously anesthesia and local infiltration with lidocaine and vasoconstrictors. The surgeries were performed by means of an inframammary incision. It was used a 4,8-mm bilateral tubular suctioning drain system until 72 hours post-surgery. The implants used were silicone round moderate projection type, with smooth envelope, gel filled with a constant brand. The amount of blood was collected and noted every 24 hours by the same method, with a 20-cc syringe. Patients were followed with a maximum of six years and a minimum of three years. All patients were submitted to magnetic resonance after three years of implantation.

RESULTS/COMPLICATIONS: The mean age of the patients was 27 years (18–44). There were no complications during the procedure. The total amount of blood drained was from 86 cc to 355 cc, (normal distribution, average 187 cc); 56% of the total amount drained after 24 hours, 27% after 48 hours and 17 % after 72 hours. There was no hematoma, seroma, infection and capsular contracture. The patients didn't present bruising in the breast region. The resonance magnetic exams were considered normal for all the patients. One presented a small amount of liquid around the implant, one side after four years.

CONCLUSION: It is important to observe the unexpected large amount of blood collected even the patient presented no risk factors and submitted to a procedure with careful hemostasis and aseptic technique. The absence of late seromas, hematomas or dense capsule formation, even in this small number of participants suggest the necessity of drainage for breast implants. It's important to emphasize the silicone characteristics as an inhibitor of clot formation that may result in a long-time presence of no coagulated blood around the implant. In the 1980's, we observed the

presence of fibrin and uncoagulated blood around tissue expanders in the removal surgery step, 3 to 6 months after introduction and It was the first opportunity to understand the behavior of the presence blood around silicone. Based on our results, we emphasize the importance to perform more prospective studies regarding drainage after breast augmentation with silicone implants.

Gynecomastia: The 5 Zones Concept

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INTRODUCTION: Aesthetic breast area improvements for gynecomastia and gender dysphoria patients who seek a more masculine appearance have increased recently.¹⁻⁶ We present our clinical experience in breast masculinization using and ultrasound liposuction (VASER©).

METHODS AND MATERIALS: Male breast topography was done by dividing each breast into 5 different zones (according to the breast relation to the surrounding muscles), in addition to a special zone of lipo-filling to augment the breast superiorly. The evaluation was performed 6 months after surgery to determine the degree of satisfaction and presence of complications.

RESULTS: Thirty subjects were included in the analysis of this study with mean age of presentation 34.2 (5.5) years with a range from 27 to 49 years old. Twenty-five patients (83%) had grade II gynecomastia, three patients (10%) were grade III and two patients (7%) were grade IV gynecomastia (according to *Rorhrich et al* classification system). The mean BMI was 33.1 (2.1) Kg/m² with a range from 27 to 38. Eighteen (60%) of patient had chest lipo-augmentation, twelve (40%) only had liposculpture without fat injection. Ten (33%) cases had glandular disc excision. Mean volume of Fat injected was 104 (7.2) cc (range; 100–200 cc).

Among the 30 patients, total complications were seven (23.4%). Major complications were 3 (10%) and minor complications were 4 (13.4%)

CONCLUSION: The new defined zones of the breast acts as a good guide to the surgeons when addressing a case of Gynecomastia. Liposuction and pectoral lipofilling using

power-assisted and VASER© techniques are safe and reliable methods for management for gynecomastia with high satisfaction rates and few complications, most of these complications are dealt with using conservative measures without affecting much of the end results and patient's satisfaction.

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Fat Embolism in Gluteal Lipoinjection: Not Only a Matter of “Where” but Also of “What”

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PURPOSE: Gluteal fat grafting became extremely popular during the last five years according to ASPS statistics.¹ Parallel, there have been deaths reports following this procedure, usually associated with gluteal vessels damage and macroscopic fat embolism (MAFE).² Some necropsies have failed to find macroscopic fat tissue in lungs or tore gluteal veins, but found oil in lung parenchyma in the microscopic evaluation, which has been called microscopic fat embolism (MIFE).³ Fat embolism is known to occur even without lipoinjection, in patients subjected only to liposuction.⁴ But all papers published so far about safety in gluteal fat transplantation focus only on MAFE pathophysiology, outlining buttocks areas, machinery, and techniques that are more prone to provoke a vessel wall damage. To date, there is no initiative discussing measures to avoid MIFE, therefore not contemplating all fatal cases that occur.

METHODS AND MATERIALS: MIFE pathophysiology, the interplay between vascular wall physiology and liposuction components, taking into account the effects of surgical metabolic response on vascular reactivity are discussed and correlated to clinical current practices.

RESULTS: Fat injections into the muscular tissue are related to fat embolism not only because the presence of large vessels within its mass that can be damaged and suction the fat graft through the tearing but also because muscles have a higher overall vascularity and concentration of vessels compared to other tissues that allow more absorption of the free oil normally contained in the lipoaspirate through its lipophilic walls.

CONCLUSION: Initiatives to develop fat tissue harvesting and processing machinery and techniques that avoid the presence of free oil in the graft material are pivotal to ensure maximal safety in autologous fat graft procedures.

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