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Gluteal fat grafting

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ABSTRACT

The notion of feminine aesthetics has evolved, significantly shaped by cultural and geographical influences. The primary areas of emphasis are the buttocks and breasts, particularly in Latin America. Consequently, gluteal fat grafting has more significance. This paper is to examine the outcomes of this treatment and its difficulties, propose a categorization for buttock morphology, and standardize the regions designated for fat grafting. The operation is safe with a low complication rate when fat grafting adheres to the subcutaneous plane, resulting in high patient satisfaction.

KEYWORDS: Lipectomy; Gluteal region; Aesthetics; Reconstructive surgery; subcutaneous adipose tissue

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INTRODUCTION

The skeletal framework and genetic predisposition for adipose tissue accumulation will determine body form traits, particularly in those with broader hips and more fat deposition in the gluteal-trochanteric area, resulting in a more defined waistline.

The aesthetic patterns of female body contours fluctuate with time, influenced by cultural trends and geographical circumstances, as shown by sculptures, paintings, periodicals, and social media. 1. A waist-to-hip ratio of around 0.7 is regarded as optimal for the female physique.

Currently, the buttocks and breasts are the primary focal points, particularly in Latin America, where there is significant media emphasis on the ideal gluteal form, which accounts for the rising demand for gluteoplasty treatments in Brazil in recent years. Statistics from The International Society of Plastic Surgery (ISAPS) indicate that in 2013, about 10,000 gluteoplasty surgeries with fat grafting were conducted annually. This technique has escalated throughout the years, culminating in about 25,000 surgeries annually in 2018.

The aspiration for a body silhouette characterized by a slender waist juxtaposed with a more prominent gluteal area has prompted several women to pursue this beauty ideal. Liposuction is crucial for waist reduction while simultaneously supplying fat for buttock enhancement. Gluteal fat grafting involves the aspiration of adipose tissue from various anatomical sites and its subsequent injection into the gluteal area. It is a treatment that employs an autologous, safe biological product with predictable outcomes.

In comparison to other methods for augmenting buttock volume, including silicone implants and the injection of permanent alloplastic substances like polymethylmethacrylate, fat grafting has a reduced rate of problems. Nonetheless, gluteal fat grafting may entail significant problems when attempting to inject substantial amounts, since it carries the risk of fat embolism and even mortality. The Aesthetic Surgery Education and Research Foundation (ASERF) advocates for specific precautions to mitigate risks, including: refraining from injecting fat into muscle; employing larger caliber cannulas, such as 4mm with a single aperture; directing the cannula towards the superficial

Tissues and administering the fat while the cannula is in motion.

Adhering to these guidelines, gluteal fat grafting emerges as a significant procedure in body contouring, exhibiting a low complication rate, as demonstrated by a meta-analysis conducted in 2016 by Alexandra Condé-Green and colleagues, which included 4,105 patients from 19 selected

articles, revealing an incidence of 6.7% for minor complications and 0.32% for major complications.

Surgery including gluteal augmentation with fat grafting and silicone implants, as suggested by Aslani & Del Vecchio, is a viable method to enhance gluteoplasty outcomes and mitigate problems; nevertheless, more investigations are necessary for definitive findings.

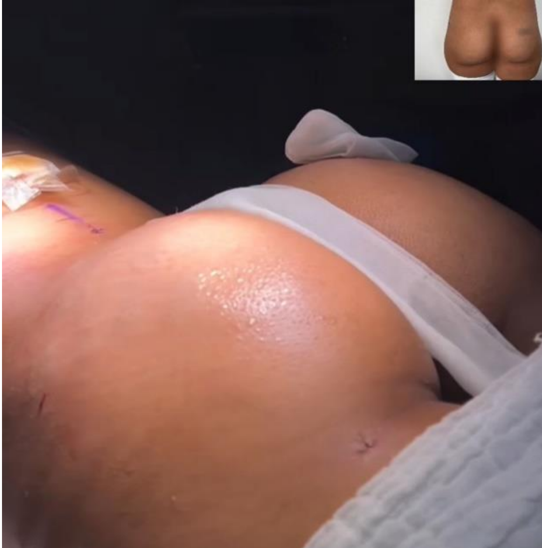

Figure 1. fat grafting

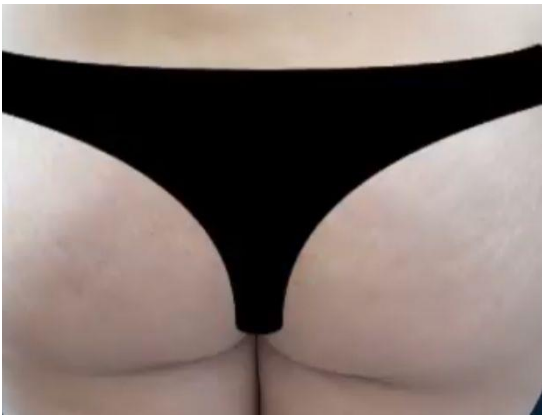

Figure 2. Before

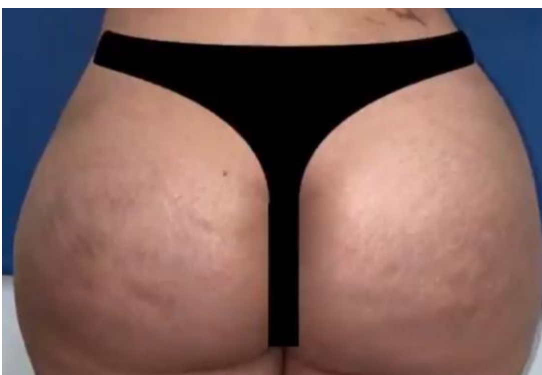

Figure 3. After

DELIBERATION

The first gluteoplasty operation was documented in 1969 by Bartels, who used breast implants for gluteal restoration. With the progression of liposuction, a novel option to gluteoplasty has arisen: fat grafting.

Gluteoplasty procedures have increased in prevalence over the years owing to the demand from patients seeking to enhance the gluteal area for improved body shape. Consequently, gluteal fat grafting has gained prominence as a surgery owing to its high demand and favorable outcomes without the use of alloplastic materials.

According to the review by Condé-Green et al., infiltration of the donor area with saline containing adrenaline, as executed in our investigation, is the most prevalent method, followed by the use of Klein and Ringer lactate solutions with adrenaline. The current investigation acquired adipose tissue using 3.5- and 4.0-mm cannulas using liposuction apparatus. The study conducted by Cansancao et al. including Brazilian cosmetic surgeons yielded comparable findings, indicating a preference for liposuction equipment and a 4 mm cannula.

The production of fat is contentious in the literature, with several procedures documented. This study used the decanting approach for fat preparation, which is predominantly referenced in several scientific studies, including those involving cosmetic surgeons in Brazil, while fat washing ranks as the second most employed technique. According to the review by Condé-Green et al., decantation was the predominant method used, with centrifugation ranking second.

Concerning fat injection planes, we only used the subcutaneous plane, which has been the most prevalent after the task force conducted by the Aesthetic Surgery Education and Research Foundation, because to its superior safety profile.

The current investigation noted relatively minor problems, including asymmetry in five individuals (3.65%), persistent discomfort lasting over 30 days in three cases (2.2%), and superficial epidermolysis blisters in four instances. 2.9% No seroma collection was detected, in contrast to the findings reported by Condé-Green et al. and Rosique et al. Its prevalence varied from 2.4% to 4.7% and is among the most frequently documented problems in the literature. We assert that fat grafting was conducted only in the subcutaneous plane, and there were no significant consequences, including fat embolism or mortality. The literature indicates that these severe problems occurred more often when the transplant was executed in the muscle plane9,12. Consequently, we underscore the need of positioning the fat transplant only inside the subcutaneous plane.

In instances of asymmetries, we assert that they were there prior to the operation and were not entirely rectified with fat grafting. Nevertheless, they achieved substantial improvement. Additional surgery was unnecessary since the patients were content with the outcome. Blister development was addressed by using a semipermeable transparent adhesive film treatment (Tegaderm®), which remained in place until it absorbed the blister fluid. Initially, these regions exhibited dyschromia but reacted well to the therapy

recommended by the dermatologist. Both instances of persistent pain ameliorated with physical therapy (mobilization and carboxytherapy) and were eliminated within four months.

CONCLUSION

Gluteoplasty with fat grafting is a technique that yields favorable outcomes, rated as “excellent” or “very good”, accompanied by a low complication rate, and is mostly pursued by women aged 30 to 40 years. The trapezoidal morphology of the gluteus is the predominant anatomical configuration.

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