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Plastic and Burn Surgery

Combined Abdominoplasty and Gluteal Fat Grafting – Retrospective Study of 80 Cases

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Abstract **Original Research Article**

Introduction: The association of abdominoplasty with gluteal fat grafting (Brazilian Butt Lift – BBL) aims to restore overall body harmony by simultaneously improving the abdominal contour and gluteal projection. However, questions persist regarding safety and postoperative morbidity. ***Objective:*** To evaluate the aesthetic and functional outcomes and complication rates of this combined procedure in a Moroccan university hospital. ***Material and Methods:*** A retrospective study was conducted on 80 female patients operated on between May 2024 and May 2025. Demographic, intraoperative, and postoperative data were analyzed. Outcome assessment relied on clinical examination, photographic comparison, and the Body-Q questionnaire. ***Results:*** Mean age was 44 years (range 21–67). Mean BMI was 26.5 kg/m². Average operative time was 150 ± 30 min. The mean aspirated fat volume was 2000 ml, with an average of 500 ml injected per buttock. Overall complication rate was 8.75% (seroma 2.5%, partial skin necrosis 1.25%, hematoma 1.25%, infection 1.25%, delayed wound healing 1.25%). No cases of fat embolism were recorded. Global satisfaction (Body-Q) was high in 87.5% of patients. ***Conclusion:*** The combination of abdominoplasty and gluteal fat grafting provides harmonious and long-lasting aesthetic results with a low complication rate, provided that strict safety principles are followed and patient selection is appropriate.

Keywords: Abdominoplasty, Fat grafting, Brazilian butt lift, Plastic surgery, Complications.

I. INTRODUCTION

The evolution of aesthetic standards, influenced by the media and the popularity of sculpted silhouettes, has led to a significant rise in demand for comprehensive body contouring. Abdominoplasty and gluteal fat grafting are two complementary procedures that address abdominal excess and gluteal hypotrophy simultaneously.

Although the combination enhances the aesthetic result, it may increase operative time and postoperative risks, particularly seroma and skin necrosis. The aim of this work is to evaluate the aesthetic and functional outcomes, as well as morbidity, of this combined intervention.

II. MATERIAL AND METHODS

Study Type

Retrospective study conducted in the Department of Plastic and Burn Surgery at the Mohammed V Military Teaching Hospital in Rabat between May 2024 and May 2025.

Population

Eighty female patients aged 21 to 67 years who underwent abdominoplasty with umbilical transposition combined with gluteal fat grafting.

Surgical Procedure

Liposuction:
Harvesting from the abdomen, flanks, and back; decantation without centrifugation.

Abdominoplasty:
Suprapubic incision, subcutaneous undermining up to the costal margin, rectus muscle plication, umbilical transposition, systematic drainage.

Gluteal fat grafting: Exclusive subcutaneous, atraumatic injection into the superolateral gluteal regions; average volume 500 ml per buttock.

Statistical Analysis

Data processed using SPSS®. Student's t-test and χ^2 test were used; significance threshold $p < 0.05$.

III. RESULTS

- **Mean age:** 44 years
- **Mean BMI:** 26.5 kg/m²
- **Smoking:** 35%
- **Mean operative time:** 150 ± 30 min
- **Mean volumes:** 2000 ml fat aspirated, 500 ml injected per buttock

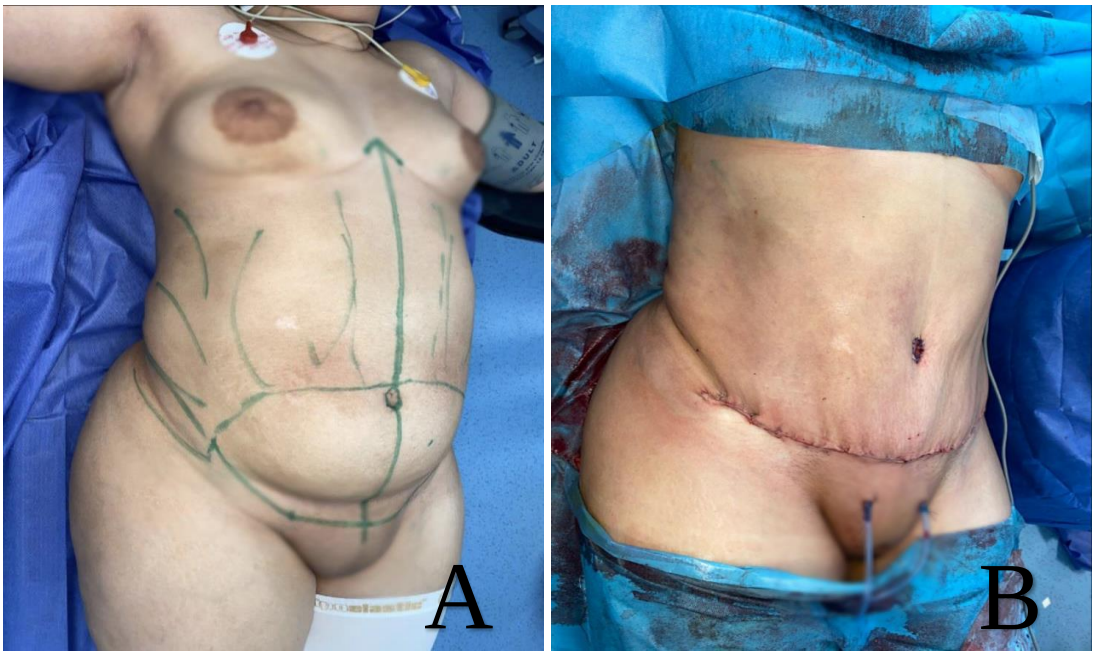

Fig.1: A: Preoperative photo before abdominoplasty, B: Postoperative photo after abdominoplasty

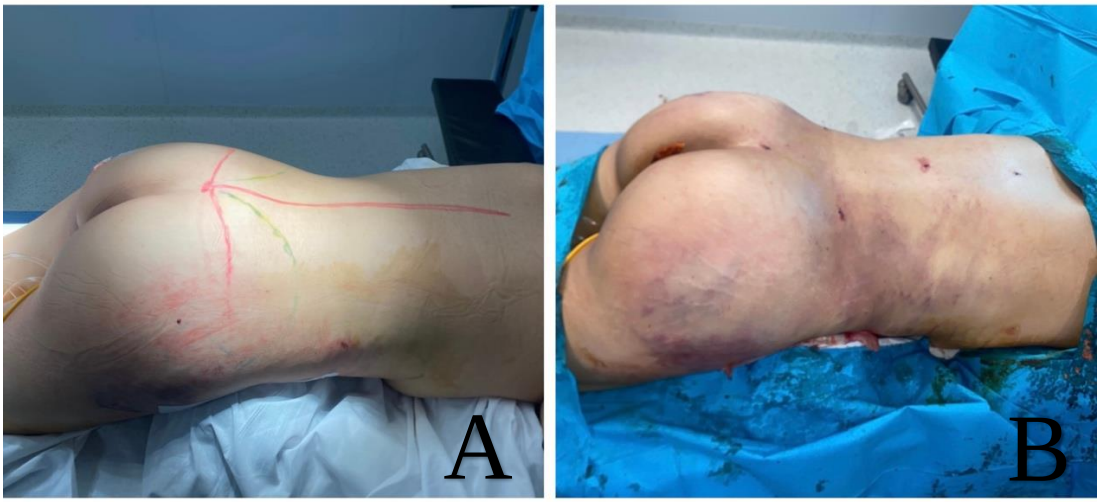

Fig.2: A: Preoperative photo before gluteal lipofilling and after abdominoplasty, B: Postoperative photo after gluteal lipofilling

Complications
Overall rate: 8.75%

- Seroma: 2 cases (2.5%)
- Hematoma: 1 case (1.25%)
- Partial skin necrosis: 1 case (1.25%)
- Superficial infection : 1 case (1.25%)
- Delayed wound healing: 1 case (1.25%)

No fat embolism or major complications were observed.

Significant risk factors included:

- BMI ≥ 30 kg/m² ($p < 0.05$)
- Prolonged operative time (>170 min, $p < 0.05$)
- Active smoking ($p = 0.08$)

Aesthetic and Functional Outcomes

- Satisfactory results in 93% of cases
- High subjective satisfaction (Body-Q) in 87.5% of cases
- Improvement in posture and self-confidence reported by over 70% of patients

IV. DISCUSSION

The results confirm that combining abdominoplasty with gluteal fat grafting is feasible and safe within a structured hospital setting.

The complications observed (8.75%) are comparable to international reports:

- Casanueva *et al.,* (2021): 7% minor complications
- Cansancao *et al.,* (2020): 9% complications without fat embolism
- Sampaio *et al.,* (2022): 8.3% with high satisfaction

Identified risk factors include overweight status, smoking, and extended operative time. Strict adherence to subcutaneous-only fat injection and avoidance of intramuscular placement are essential safety measures.

This combined approach offers dual benefits: abdominal volume reduction and gluteal enhancement, contributing to a balanced silhouette and significant improvement in quality of life.

V. CONCLUSION

The combination of abdominoplasty and gluteal fat grafting is a reliable option for global body contouring, offering harmonious and long-lasting aesthetic results with low morbidity. Proper patient selection, technical mastery, and adherence to lipofilling safety guidelines are essential to minimize risks.

Conflict of Interest Statement

The authors declare no conflicts of interest related to this article.

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