

Scarpa Fascia Preservation During Abdominoplasty: What's the Point?

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Abstract

Background: Abdominoplasty is one of the most popular body-contouring procedures. Previous studies described a superficial and deep compartment in the lower abdominal wall separated by Scarpa fascia.^{1,2} Preservation of this fascial plane has been suggested as a way to lower the complication rate associated with conventional abdominoplasty.^{3,4} The purpose of this study was to evaluate the effect of preserving Scarpa Fascia during a full abdominoplasty.

Methods: A prospective study was performed, between November 2005 and November 2007, involving patients submitted to abdominoplasty, at the Department of Plastic Surgery of São João Hospital, Porto Medical School. Two groups of patients were created: classical full abdominoplasty (group A) and full abdominoplasty with preservation of Scarpa fascia in the infra-umbilical region (group B) (Figure 1)⁴. The variables analyzed were: age, body mass index (BMI), previous abdominal surgery, comorbid medical conditions, specimen weight, time to suction drain removal, total volume of drain output and length of hospital stay. T-student and Mann-Whitney test and χ^2 test were used.

Results: A total of 208 full abdominoplasties were performed (group A, 143 patients; group B, 65 patients). There were no statistically differences between groups respecting BMI, previous abdominal surgeries, comorbid medical conditions or surgical specimen weight ($p > 0.05$). There were statistically significant differences respecting total volume of drain output ($p < 0.001$), time to drain removal ($p < 0.001$) and hospital stay duration ($p < 0.001$) (Table 1). The group with preservation of Scarpa fascia had an average reduction of the amount of drain output of more than 50% and an average reduction of 2.0 days on time to drain reduction and 1.9 days on hospital stay, when compared to the other group.

Conclusions: Preservation of Scarpa fascia during abdominoplasty has a beneficial effect on patient recovery, reducing total drain output, time to drain removal and hospital stay.

References

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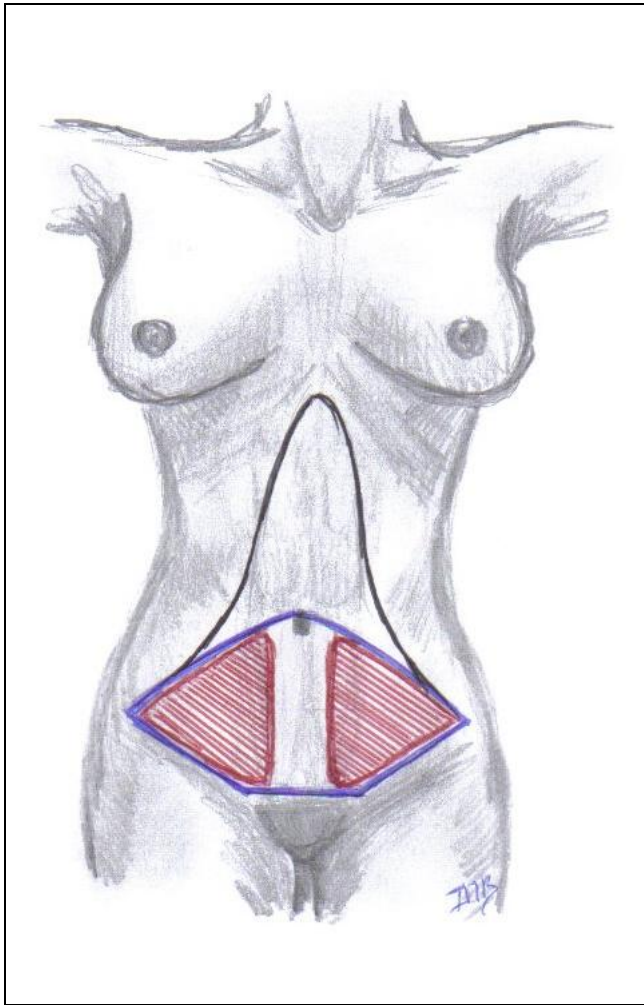


Figure 1: Dissection planes in abdominoplasty with Scarpa fascia preservation. The *blue line* represents the skin resection pattern. The *black line* limits the area to be undermined. The dissection is performed on the plane of the deep fascia except for the areas within the *red line*, which correspond to dissection on the plane of the Scarpa fascia.

	Grupo A (n=143)	Group B (n=65)	p-value
Age, years Mean (Range)	41.1 ± 8,96 (24.0 - 65.0)	37.8 ± 6,87 (22.0 - 54.0)	0.009
Body mass index, Kg/m ² Mean (Range)	27.89 ± 4,19 (19.1 - 39.3)	26.63 ± 4,72 (19.7 - 43.0)	NS p>0.05
Previous abdominal surgeries Total number (%)	93 (65%)	42 (64.6%)	NS p>0.05
Specimen weight, gr Mean (Range)	1250.4 ± 636,5 (190-3050)	1153.0 ± 873,2 (250-6000)	NS p>0.05
Time to drain removal, day Mean (Range)	5.14 ± 3,08 (2.0 - 22.0)	3.17 ± 1,42 (2.0 - 9.0)	< 0.001
Drain output, cc Mean (Range)	523.11 ± 521,61 (80 - 3615)	214.85 ± 201,75 (5 - 1225)	< 0.001
Hospital stay, day Mean (Range)	6.8 ± 3,24 (3.0 - 26.0)	4.91 ± 1,70 (3.0 - 11.0)	< 0.001

Table 1: General characteristics and results of both groups, n=208
(NS: Not significant)