

Myofascial Repair with Sub-lay Mesh in Abdominoplasty Provide Durable Aesthetic & Functional Outcomes

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Introduction: Musculoaponeurotic rehabilitation is an integral step for gaining superior aesthetic outcome in full abdominoplasty to correct severe abdominal laxity. The myofascial repair is gaining popularity because of the durable rehabilitative outcome. The retromuscular sub-lay mesh placement has proven to provide the most durable repair in treating groin hernias.

Aim: This study aims to document and evaluate the long-term durability of musculoaponeurotic reconstruction in abdominoplasty using myofascial repair with sub-lay mesh application technique.

Patients & Methods: Twenty-one female patients underwent abdominoplasty to treat severe abdominal laxity were included in the study over a five-year period from July 2010 to June 2015. They were followed up to a minimum of 18 months. They were assessed for both functional & aesthetic outcomes.

Results: The changes in intraoperative airway pressure (Paw) values, before and after myofascial repair, indicated moderate statistically significant changes ($r=0.4707$ and $p\text{-value}=0.0213$). The reduction in waist circumference averaged 9.5 cm, ranging from 4 to 17.5 cm. The changes in the waist/hip ratios from preoperative to postoperative were statistically significant ($r=0.6859$ and $p\text{-value}=0.0003$). The subjective assessment of the aesthetic outcome rated as 8.13/10 by an independent panel of 4 plastic surgeons & a nurse while that of the patients was 8.05/10. Patient satisfaction had been extremely high, and the complication rate was low. All patients gained improvements in their posture and no secondary hernias were seen.

Conclusion: The myofascial repair modification of the rectus sheath described in this study provides durable functional and aesthetic outcomes in abdominoplasty even in severe degrees of abdominal laxity. The myofascial repair restores the integrity of the anterior abdominal wall, especially in presence of concomitant ventral hernias, and relieves back pain through redistributing the forces between back and anterior abdominal wall musculature. Those functional outcomes go hand in hand with superior aesthetic refinements to the trunk

region; it enhances the hip/waist ratio, giving more feminine trunk configuration and pronounces the breast aesthetics.

Keywords: long-term, myofascial repair, abdominoplasty

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