

Abdominoplasty Flap Elevation in a More Superficial Plane: Decreasing the Need for Drains

Robert C. Fang, M.D.
 Samuel J. Lin, M.D.
 Thomas A. Mustoe, M.D.
Chicago, Ill.; and Boston, Mass.

Background: Abdominoplasty has continued to become more frequently performed in the post-bariatric surgery and aesthetic patient populations. With the increase in these procedures, there is a need to decrease the length of drains for patient comfort and postoperative recovery. The authors' hypothesis was that a more superficial plane of abdominal flap elevation during abdominoplasty would decrease the postoperative need for drains.

Methods: The authors reviewed 202 consecutive abdominoplasties with 99 procedures performed using a standard suprafascial dissection (group I) and 103 procedures using a modified plane of flap elevation that preserves the thin areolar tissue along the abdominal wall (group II). Patient demographics, perioperative complications, and drain data were recorded.

Results: Patient characteristics did not differ significantly, with the mean age of group I and group II (44 ± 8.9 years and 44 ± 9.6 years, respectively) and body mass index of group I and group II (24 ± 3.8 and 24 ± 3.8 , respectively) being similar. Perioperative complications included seven seromas in group I and two seromas in group II. There were two minor hematomas in group I and two minor hematomas in group II. The drains for patients in group II met criteria for removal 3 days earlier than those for group I ($p < 0.0001$). On average, patients in group II had drains removed at postoperative days 4 to 5.

Conclusions: Flap elevation in a plane superficial to the standard suprafascial approach during abdominoplasty may decrease the length of time required for drains in the postoperative period in the abdominoplasty patient. Decreasing the length of time for postoperative drains may improve patient comfort and expedite recovery. (*Plast. Reconstr. Surg.* 125: 677, 2010.)

In recent years, abdominoplasty and related body contouring procedures have continued to increase in number both in aesthetic and in post-bariatric surgery patients. Specifically, the 2008 American Society for Aesthetic Plastic Surgery Cosmetic Surgery National Data Bank reported that the number of abdominoplasty procedures had increased more than 300 percent over the past decade.^{1,2}

Postoperative seroma formation remains the most frequent complication following an abdominoplasty procedure.³ The overall incidence of se-

romas has not changed dramatically in the modern era of abdominoplasty procedures. A number of investigators have reviewed the frequency of postoperative seromas over the past 30 years, reporting incidences between 5 and 50 percent.⁴⁻⁹

The most frequently used method for decreasing seroma frequency has probably been the use of closed suction drains. Despite this known proven technique, there remains room for improvement in the reduction of postoperative seromas. Some authors have reported refinements

From the Division of Plastic Surgery, Northwestern University Feinberg School of Medicine, and the Division of Plastic Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School.

Received for publication January 29, 2009; accepted August 3, 2009.

Copyright ©2010 by the American Society of Plastic Surgeons

DOI: 10.1097/PRS.0b013e3181c82f78

Disclosures: *None of the authors has a financial interest in this study. In addition, none of the authors of this study has any commercial associations or financial disclosures that may pose a conflict of interest with any information presented in this article.*