

# Abdominoplasty Combined With Treatment of Enterocutaneous Fistula

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## Abstract

Abdominoplasty, a simple, safe and easy procedure when performed alone, could be combined with other aesthetic, gynecologic or intraabdominal procedures. Although combined abdominoplasty procedures with gynecological operations or intraabdominal procedures are quite common in the literature; we report the treatment of a morbid obesity case with complicated enterocutaneous fistula to whom abdominoplasty operation was performed simultaneously. The importance of a qualified team approach is emphasized once again as a condition sine qua non. Otherwise, these techniques would be extremely difficult and risky.

## INTRODUCTION

Abdominoplasty is a simple, safe and easy procedure. Patients often request to combine the abdominal contour procedures to be combined with other aesthetic, intraabdominal or gynecologic procedures<sup>1,2,3,4,5,6</sup>. Beside the advantages of more complete patient satisfaction owing to the simultaneous correction of multiple complaints, decreased hospitalization length and costs, decreased physician and patient time investment and reduced potential risks of multiple anesthesia for each procedure, a qualified team approach of different surgical disciplines with careful planning of the combined procedures, meticulous preoperative preparation and operative cooperation make these combined procedures much more complicated than a simple aesthetic surgical intervention<sup>4,5,6</sup>. In this contribution we present the data from a rather unusual combined abdominal contour surgery, in which treatment of a complicated enterocutaneous fistula of a morbid obese patient is combined with an abdominoplasty procedure.

## CASE REPORT

A 57-year old woman was admitted to General Surgery Department with the complaint of gastrointestinal fluid leakage from the anterior abdominal wall. The fistula, draining for six months was developed after an umbilical hernia repair, performed one year ago. Daily fistula output was 150-200 ml.

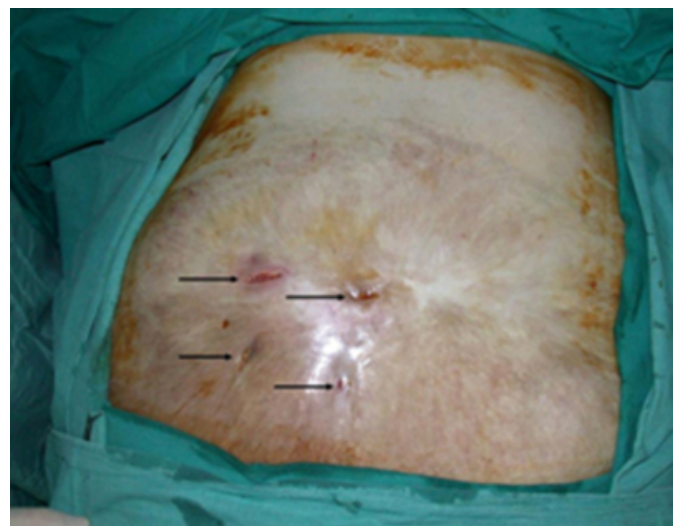
The patient was obese with bulging abdominal wall. The

body mass index of the patient was calculated to be 39.1 with height of 1.59 m and weight of 99 kg.

An orifice of enterocutaneous fistula in place of the umbilicus and three more orifices around this large orifice were apparent in physical examination. (Figure 1)

## Figure 1

Figure 1: Anterior abdominal wall with draining fistula orifices. Orifices are marked with arrows.



Under direct scopic visualization, radioopaque contrast agent was injected through the catheterized orifices. The view of the radioopaque contrast agent distribution after injection inspired the view of small bowel segments. (Figure 2)

**Figure 2**

Figure 2: Distribution of the radioopaque contrast agent, injected through the catheterized orifices is compatible with small bowel segments

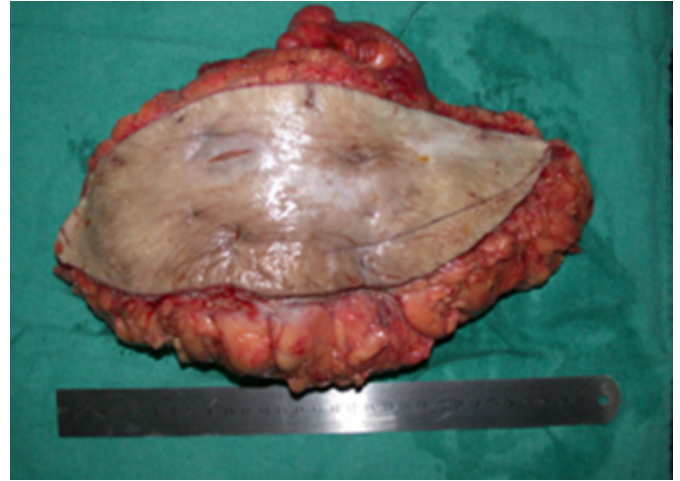


After laparotomy with horizontal elliptical skin incisions encircling the abdominal skin from where the orifices of the fistula drain, the small bowel segments from 170 to 270 cm after the Trietz ligament were found to conglomerate within the hernia sac.

All the bowel segments within the hernia sac adhered and formed a giant mass. The dissection of the bowel segments wither from the hernia sac or from each other would further contaminate the surgical area, therefore conglomerated bowel segments, hernia sac and all orifices of enterocutaneous fistula were removed en-block with the covering skin segment of the abdominal wall. (Figure 3 A, B)

**Figure 3**

Figure 3: Conglomerated bowel segments, hernia sac and skin segment containing the orifices of enterocutaneous fistula were removed en-block a) anterior view, b) posterior view



**Figure 4**



Gastrointestinal system continuity was achieved by two layer end-to-end anastomosis of the proximal and distal ends of the small bowel segments. The defective fascia was repaired primarily with 1-0 vicryl suture. The fascia repair was strengthened with prolene mesh graft applied over the repaired fascia.

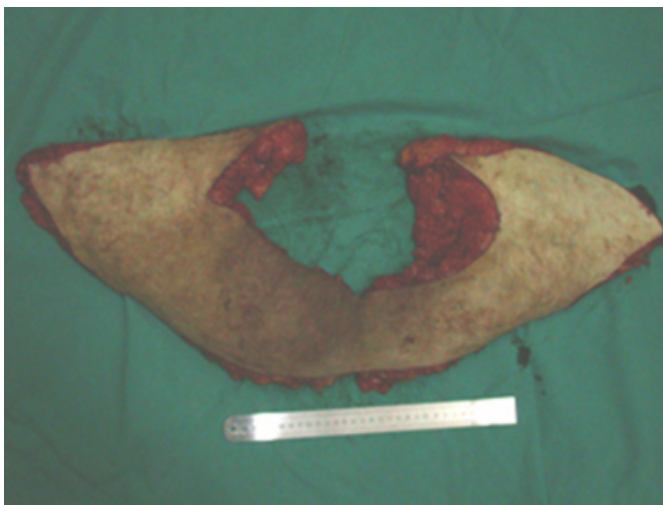
Present incisions were elongated to remove additional skin and abdominal fat as well as to prevent the development of “dog ears” after closure of the wound. (Figure 4 A, B)

### Figure 5

Figure 4: a) Planned incisions for removal of excess skin and subcutaneous fat to prevent the development of "dog ears" after closure of the wound and to resect bulging pendulous anterior abdominal wall, b) Skin and subcutaneous fat segment, secondary resected for removal of bulging pendulous anterior abdominal wall.



### Figure 6



The first resected specimen including the abdominal wall and small bowel segments was measured to be 2550 gr while the second specimen obtained for abdominal contour correction was measured to be 4400 gr. Prophylactic antibiotics given preoperatively was continued after surgery. She received low molecular weight heparin prophylaxis (enoxaparin sodium 0.4 ml) and vigorous postoperative respirator therapy and compression stockings were applied.

With all these measures, the postoperative period was uneventful without any complication. The suction drains were removed on the fourth postoperative day and the patient discharged two weeks after the surgery wearing an

abdominal binder. (Figure 5)

Figure 5: Postoperative side view of the patient after repair of the abdominal fascia and removal of the bulging pendulous skin of the anterior abdominal wall.

## DISCUSSION

Abdominoplasty is the choice of treatment for correction of the abdominal contour deformities associated with excess skin and subcutaneous tissue that cannot be corrected with skin contraction after liposuction procedure and/or with abdominal musculoaponeurotic laxity. Therefore it is the procedure of choice in patients with history of pregnancies or patients with bulging pendulous abdomen. Nowadays, since some of these patients have associated gynecologic or intraabdominal problems, patients request to be operated for all these problems in a single operation. The advantages of these combined procedures are a more complete patient satisfaction owing to the simultaneous correction of the abdominal contour deformity along with other gynecological or intraabdominal problems, decreased hospitalization length and costs (if compared with multistage surgical corrections), and decreased physician and patient time investment.

Although abdominoplasty is said to be a relatively simple, safe and easy procedure to perform, it is not complication free. In 10,490 abdominoplasties performed by 958 surgeons, wound infections (7.3%), dehiscence (5.4%), hematoma (6.0%) and distal flap necrosis as skin loss were the most common complications<sup>7</sup>. Additionally, beside these common but minor problems, more serious complications such as deep vein thrombosis (1.1%) and pulmonary emboli (0.8%) were also reported and mortality was reported to be 1.6 per 1000. Dermolipectomy, diastasis repair, placement of an abdominal binder and flexed Fowler position should be considered as predisposing factors for these serious complications, all of which contribute to prevention of the abdominal motion and inspiratory function.

34.5% morbidity was reported in access abdominoplasty, performance of other aesthetic procedures with the incision of abdominoplasty on be half of the abdominoplasty procedure, while the morbidity of the abdominoplasty was reported only 13.0% when performed alone<sup>8</sup>. Complication rates in combined abdominoplasty -abdominoplasty combined with other gynecologic or intraabdominal procedures-, however, have not been well-determined yet. Little information is available regarding the safety of combining these procedures<sup>3</sup>. Although the accumulating data in the medical literature is emphasizing the advantages

of the combined procedures, we still insist that these combined procedures should be considered after meticulous preoperative preparation of the surgical teams in selected patients.

In this particular case, the abdominal musculoaponeurotic defect would be closed with prolene mesh in any case and removal of the just the access abdominal wall skin and subcutaneous tissues did not increased the tension at the wound edges. Instead, it may help the abdominal hygiene in postoperative period. Additionally, in such a morbid obesity case, removal of excess skin and adipose tissue from the abdomen definitely improve the respiratory function. Moreover, since the life threatening complications of the abdominoplasty is related with deep vein thrombosis and pulmonary problems, all measures for prevention of such possible complications considered preoperatively.

In conclusion, abdominoplasty could be combined with any intraabdominal procedure, only if meticulous preoperative preparation of the patient and operative cooperation within a qualified team from different surgical disciplines could be achieved.

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