

Combined surgery: abdominoplasty and abdominal laparoscopic surgery in one surgical time.

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Summary:

There are two clinical cases of major laparoscopic abdominal surgery combined with plastic surgery after a first intervention of bariatric surgery without skin incisions and, at the same surgical time with the purpose of announcing a surgical resource by a multidisciplinary team, specialized in patients with high anesthetic risk or optimizing the number of interventions in the same patient. The first case is a male who, after having undergone a vertical gastrectomy, a tummy tuck, and a breast liposuction, where we proposed an abdominoplasty and a breast liposuction while we performed a cholecystectomy via a laparoscopic route. The second case is a patient who underwent a vertical gastrectomy to perform a hiatoplasty (Hill's intervention) due to hiatus hernia, combined with a tummy tuck.

The combination of two or multiple abdominal procedures requires careful patient selection in order to be able to safely combine them, however, it avoids skin incisions and can reduce the potential risks of multiple anesthesia for each procedure, shorten the total hospital stay and total surgical time, as well as, reduce costs and postoperative recovery.

Keywords:

- Combined surgery,
- Bariatric surgery
- Plastic surgery
- Tummy tuck
- Vertical gastrectomy
- Cholecystectomy
- Hiatoplasty

Introduction

Tummy tuck surgery is the intervention of plastic surgery consisting of the reconstruction of the abdominal wall, eliminating excess skin, fat and tension of the muscles of the abdominal wall with the ultimate goal of reshaping the abdomen, waist and trunk shape.

The increase in the number and success of bariatric surgery interventions has caused growing concern about the surgical treatment of abdominal deformities after weight loss. Abdominoplasty as a procedure has very low morbidity rates and complications.

In the article published by Iljin A, et al (1) it shows that the patients who underwent abdominal wall deformities report a positive influence of the surgery as well as an improvement in the quality of life and personal perception. Therefore, surgery of the anterior abdominal wall deformities, after a massive loss of weight, must become an integral part of complex multidisciplinary treatment in those patients undergoing bariatric surgery.

Gallstones are the most common pathology of the gallbladder. Laparoscopic cholecystectomy is the most commonly performed surgical intervention to remove stones (2). The laparoscopic approach has been extended by its advantages, mainly less postoperative pain, early mobilization, less scar on the skin, etc. (3,4)

The combined surgery of several procedures at a surgical time, usually plastic surgery and general or gynecological interventions (5,6), can alter the morbidity of the patient and postoperative hospitalization when compared to similar procedures carried out separately (7). The most numerous published patient series to date 563 patients (8) concludes that there is no increase in major complications, increase in hospital stay, or risk of death in those patients

undergoing more than one major intra-abdominal procedure.

However, in selected cases there are studies that show benefits for the patient, in terms of reducing their hospital stay and the inherent risk of two anesthetic interventions, as well as decreasing costs associated with two surgical interventions.

Patients and methods

Between May 2017 and January 2018, two clinical cases of patients undergoing bariatric surgery in the first surgical period are presented, cases which, during abdominal follow-up, present abdominal laxity after weight loss. The average age is 50 years (range 43-57 years) with a follow-up of 18 months after the first surgery and an average weight loss of 27 kg (range 19-35).

The first case is a 57-year-old male who underwent surgery during a first period of laparoscopic vertical gastrectomy in 2016. During the clinical follow-up, he presented three recurrent biliary colic. After a satisfactory loss of weight, the patient is a candidate for breast abdominoplasty and breast liposuction where we propose via a laparoscopic route, a cholecystectomy with trocar modification and without a skin scar.

The second case is a 43-year-old patient with no previous history of gastroesophageal reflux disease who, after a first surgical period of bariatric surgery (vertical gastrectomy) presented a clinical diagnosis of gastroesophageal reflux disease with alteration in the manometric and radiological tests that showed a moderate hiatal hernia.

After a satisfactory loss of weight, it was proposed to perform hiatoplasty and Hill intervention due to diaphragmatic hernia combined with a tummy tuck. Surgical technique. At the beginning of the intervention,

the plastic surgeon started marking the abdominal flap. An extended Pfannenstiel incision and the generation of the abdominal skin flap were made up to the xiphoid process. On the muscular wall a 10mm Hasson trocar was placed at the umbilical level to generate pneumoperitoneum and was used as a chamber port. Next, 10mm trocars and two 5mm trocars were introduced under direct view. The position of the trocars can be seen in Image 1. We placed the patient in the Trendelenburg position at 40 ° C.



Image 1. Position of trocars for laparoscopy

In the first case, laparoscopic cholecystectomy was performed according to a French technique (2, 6). The cystic artery and the cystic duct were individualized to clip and section. The gallbladder was removed through the umbilical port. We close the incisions with non-absorbable suture material.

In the second case, after placing the patient in the usual position, generation of pneumoperitoneum and, under direct view, the placement of working trocars. Brake-esophageal membrane dissection and gastrohepatic ligament. Reduction of the hiatus hernia and closure of the hiatal pillars with vicryl 00 points. Posterior gastropexy according to Hill's technique.

Finally, we reposition the patient supine position, with the legs in adduction, and complete the tummy tuck. Abdominal rectus plication with PDS 00. Dermo lipectomy of the skin flap, re-insertion of the navel at the height previously marked by the plastic surgeon and fixing the skin flap with non-absorbable material and a continuous Monocryl suture for skin. Two Blake drains were placed in the dissection level. The result of both surgeries was satisfactory, and the postoperative course of both patients had no incident. Abdominal drains were removed on the second day post-intervention and the patients were both discharged from hospital on the third day.

Discussion

Plastic surgery of the abdomen is an increasingly demanding surgery due to different sociological factors. The increasing performance of bariatric surgery interventions means that, in the postoperative period of patients who achieve adequate weight loss, they will require an intervention on the abdominal wall to repair

morphological defects, as well as aesthetic defects. Tummy tuck, like any surgical procedure, is not without complications. (9).

Grazer et al (10) published, in a series of 10,490 tummy tuck morbidity rates of 19%, where the most frequent post-surgical complications were wound infection, dehiscence and hematoma. The study published by Pratt et al (11) reported 34% of complications when the tummy tuck was associated with another surgical procedure, however, in this series it is associated with plastic surgery procedures such as mammoplasties mostly. There are studies that look at the effect of the combined procedures on complication rates of cosmetic surgeries with mixed results (12, 13).

However, to date there are no long series of patients or randomized trials that allow obtaining scientific evidence to conclude whether combined surgery has higher complication or morbidity and mortality rates, there is no literature if this surgical option should be recommended in patients or, on the contrary, we must avoid it, however, our positive experience allows us to conclude that with an adequate selection of patients, the combined surgery of two or more procedures may be a surgical option to consider in selected patients.

The main limitation of the study is the presentation of a brief case series, however, the satisfactory result and the lack of literature in this regard, encourages us to continue collecting data from our patients in order to obtain more evidence that the combined surgery is a feasible option, with a lower rate of complications for the patient and that will allow us to avoid inherent risks to our patients when undergoing more than one surgical intervention.

With an adequate selection of patients we are facing a safe, feasible and well accepted resource by the patient with which we can improve postoperative recovery, reduce total hospital stay, surgery costs, without increasing the rates of complications, morbidity or mortality or the readmission rate of our patients.3.5.

Conclusions

The combination of two or multiple abdominal procedures requires patient care selection to safely combine these procedures. The combined surgery in the same surgical time allows to avoid skin incisions and reduce the potential risks of multiple anesthesia for each procedure, shorten the total hospital stay and the total surgical time, and it also reduces costs and postoperative recovery.

Conflict of interests

The author declares no conflicts of interest.

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