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Original Research Article

Simultaneous laparoscopic cholecystectomy with abdominoplasty

Ahmed Abdel Monem Ibrahim*

Department of Surgery, Lecturer of Surgery at Mansoura University Hospital, Egypt

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***Correspondence:**
Dr. Ahmed Abdel Monem Ibrahim,
E-mail: ahmedmonem69@yahoo.com

ABSTRACT

Background: The use of laparoscope in surgical removal of gall bladder became one of the most popular surgical procedures and abdominoplasty which was used from long time even during 1900, mostly done as a separate surgical procedure in our research we combined both procedures in the patients subjected to the study.
Methods: Thirty-two patients presented to our hospital with abdominal wall laxity and symptomatic cholelithiasis. All of them wanted to undergo a cosmetic procedure (abdominoplasty) to reduce the abdominal wall laxity. They were also diagnosed to have cholelithiasis and had intermittent episodes of pain in the right upper quadrant of the abdomen. The ports for laparoscopic cholecystectomy were made in such a way that all the ports sites were under the elevated skin flap that was excised during abdominoplasty, and there was no scar in the upper abdomen.
Results: The procedure was completed without leaving any tell-tale signs of laparoscopic cholecystectomy, and this led to a better cosmetic result from the patients' point of view.
Conclusions: On conclusion, we recommend asking for abdominal ultrasound examination for all patients coming for abdominoplasty especially following weight loss after surgery for morbid obesity even if the patient is asymptomatic. We recommend the use of the technique which we used for port placement as it is convenient, easy, and has no side effects on patients in comparison with other techniques.

Keywords: Abdominoplasty, Laparoscopic, Simultaneous

INTRODUCTION

Abdominoplasty; which is used even during 1900s', is modified in various ways and especially created several modifications merged with liposuction.[1] This process is mostly applied to women for hanging over and growing on front parts such as stria on skin, muscle rectus diastases.[2] The excessive numbers of unexpected complications such as seroma, necrosis on wound, epigastric suprapubic scar, led the surgeons to find out the best cosmetics and maximum patient comfort via modifications and additional procedures on the methodology.

The gallstones are one of the most frequently seen pathologies of the gallbladder. Nowadays, Laparoscopic cholecystectomy is the most frequently used surgical operation.[3] This method followed by the surgeons easy who are completed their education and practice for a long -time due to the mainly advantages of it like the less postoperative pain, early mobilization of the patients, minimum surgical trail/print creates common interest and one experimented on it widely. Moreover, this minimum surgical trail/print has been accepted by patients largely, and it made surgeons gain variety of imagination and a depth of work such as 'Bikini line', 'Single port', 'NOTES' (Natural Office Transluminal Endoscopic Surgery).[4-6]

The objective of this study was to present the phenomenon of laparoscopic cholecystectomy and abdominoplasty which we diagnosed at the same period the abdominal laxation, diastases of muscle recti and cholelithiasis without leaving any trocar entrance mark.

METHODS

Between December 2011 and October 2014, we operated in our hospital AL SALAMA 280 cases of abdominal wall repair among these cases 26 patients having history of previous surgery for morbid obesity (14 gastric sleeve and 12 gastric bypass).

During our routine preoperative work, abdominal ultrasound examination showed 8 patients had multiple gallbladder stones as incidental finding, while in 24 patients these gallbladder stones were symptomatic.

32 patients (28 females and 4 male) with abdominal wall laxity with chronic calculus cholecystitis. The mean age of the patients was 38 years (range 22-55 years). All the patients wanted to undergo a cosmetic procedure to reduce the abdominal wall laxity.

For those patients combined laparoscopic cholecystectomy with abdominoplasty were done with successful outcome without any complications.

Preoperative preparation

The patients were counseled and offered the single-stage procedure. They were told specifically about the possibility of conventional laparoscopic ports in the upper abdomen or conversion to open cholecystectomy, and informed consent was obtained.

They were operated under general anesthesia with endotracheal intubation. All the patients were administered preoperative broad-spectrum antibiotics. Sequential compression stockings were placed on both the legs to avoid pooling of blood in the lower extremities.

All the patients undergone to CAPRINO score for DVT prophylaxis.

Techniques

The elliptical skin flap in infra-umbilical region, which was to be excised later as part of abdominoplasty, was marked with an indelible marker preoperatively by the surgeon. The operation is carried out under general anesthesia. An incision is made in the bikini line as long transverse incision running from hip to hip. All of the skin between the belly button and the incision is removed. In some cases, less extensive resection is possible, resulting in a somewhat shorter scar.

The external oblique fascia to the level of abdominal incision in the skin flaps were prepared and front flap laterally through the rectus fascia was detached. Umbilicus has been separated from the skin. Skin flaps extended up to xiphoid (Figure 1).

Figure 1: Introduction of camera from supraumblical incision after elevation of skin flap.

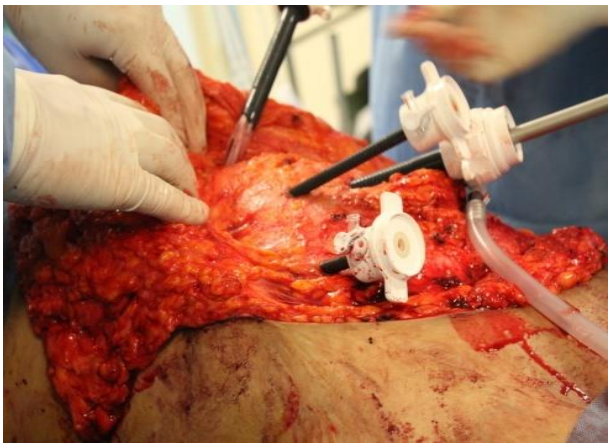

Figure 2: Insertion of trochars at the usual sites for performing laparoscopic cholecystectomy.

At this stage, study routinely perform laparoscopic cholecystectomy. Position of the operating team, the sites of our routine ports, and the "scarless" technique are shown in Figure 1 and 2.

First a 10-mm port was introduced by open method about 1 cm above the umbilicus in the midline. This was used for creation of pneumoperitoneum with carbon dioxide and used as a camera port. The other ports (one 10 mm in the epigastrium right to falciform ligament, one 5 mm right lateral border of rectus and 5mm between right midclavicular line and right anterior axillary line and all of these supraumblical) were introduced under direct vision. Then the patient was placed in a reverse Trendelenburg position of 30° while rotating the table to left side by 15° (Figure 3).

Then the usual steps of cholecystectomy were followed. Cystic artery and cystic duct were identified, clamped and divided. The gallbladder was removed through epigastric midline port using retrieval bag (Figure 4).

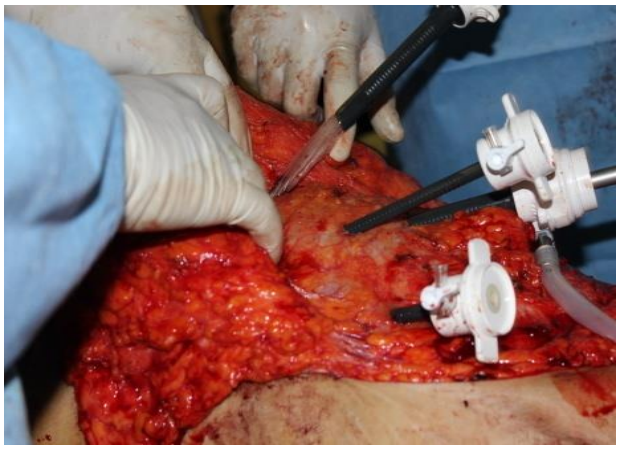

Figure 3: Then the patient was placed in a reverse trendelenburg position of 30 ° while rotating the table to left side by 15 °.

Figure 4: Removal of gall bladder with stones in retrieval bag.

Abdominal wall parts were closed with non-absorbable suture material. The patient was repositioned in supine position. Abdominoplasty, that is, rectus plication, neo-omphaloplasty, and dermolipectomy of infra-umbilical region was done. Abdominoplasty wound was closed in layers with a suction drain in situ in the plane of dissection, that is, in between the rectus sheath and the fat layer and flap held with tight dressing.

Postoperative care

The patients were given analgesics, antibiotics, and supportive care. All the patients were discharged from the hospital on the third or the fourth postoperative day without any complications and drains removed after 48 hours or 72 hours.

RESULTS

This study was conducted in Al Salama Hospital in the period between December 2011 and October 2014. Thirty-two patients (28 females and 4 male) were subjected to treatment of abdominal wall laxity with chronic calculus cholecystitis. The mean age of the patients was 38 years (range 22-55 years). All the patients wanted to undergo a cosmetic procedure to reduce the abdominal wall laxity. Operative time was ranged between (3 to 5 hours) and hospital stay ranged between (5 to 7 days).

For those patients combined laparoscopic cholecystectomy with abdominoplasty were done with successful outcome without any complications.

DISCUSSION

Patient satisfaction and the elimination of the most important step in the absence of anxiety is that the aesthetic. The first questions often asked after surgery is "How many stitches did you hit the doctor?" or "Will the scar, the Doctor?". Being in the shape of is a clear indication of that. As with most patients, in our patient cosmetic concern is at the forefront.

Today in parallel with developments in surgery the understanding of aesthetics enlarged and became more asked by patients. Especially aesthetic concern due to the operations came to the fore. Therefore, surgeons have tried to eliminate concerns for the aesthetic and less scar and progress have shifted in that direction.[7] So even a small scar which formed in laparoscopic operations has become conspicuous, and accordingly effort has emerged to join with the other surgical procedures. Some surgical procedures started to be used in the same session and tried to make attempts to complement each other in function to aesthetic.[8]

Combining two or multiple abdominal procedures may reduce the potential risks of multiple anesthesia for each procedure, shorten total hospital stay and operating room time, and, perhaps most importantly for the patient, reduce costs and time off work.[9]

Scarless cholecystectomy was described in the past using single-port technique through the umbilicus and natural orifice translumenal endoscopic surgery (NOTES) through the vagina.[10-12]

Other technique is a modification of the routine 'French technique' for laparoscopic cholecystectomy wherein all the ports are placed in the skin that is going to be excised as part of the abdominoplasty, thereby avoiding visible scars pertaining to the cholecystectomy. In this method, French technique makes the surgery relatively easy and safe as the liver is retracted from the left-sided port using a separate liver retractor.[13,14] The disadvantage in this

method is that the ports are much away from the operation site (gallbladder).

CONCLUSION

Study recommend asking for abdominal ultrasound examination for all patients coming for abdominoplasty especially following weight loss after surgery for morbid obesity even if the patient is asymptomatic.

Study recommend the use of the technique which we used for port placement as it is convenient, easy, and has no side effects on patients in comparison with other techniques.

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