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Case Report
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ABDOMINOPLASTY COMBINED WITH GYNE-COLOGICAL PROCEDURES, SAFE OR SORRY ??
CASE REPORT AND REVIEW OF LITERATURES.

Issam Mardan [@], Amer S. Daood[#]
[@] FICMS, CABS, Assist. Prof. [#] FICMS, lecturer, Dept. Of Surgery, Basrah Medical College.

Since abdominoplasty has been shown to have a positive impact on patient's self-image and quality of life, and a large hanging panniculus can cause problems such as intertrigo, chronic infection, and immobility, it is no surprise that the annual number of these procedures performed has continued to increase.

A 45 year female patient with history of recurrent lower abdominal pain and irregular menses and she was diagnosed to have a big right ovarian cyst amenable for surgery, also she had previous history of two abdominal surgeries for the same complaint. She is a heavy smoker and she was obese with BMI> 35.

A decision for ovarian cystectomy and abdominoplasty was taken, the patient was subjected to surgery by Gynecologist alone in Almuthana Hospital.

The patient runs a hard post operative course. On the first post operative day the patient developed severe abdominal pain with high grade fever and mild toxicity, examination of the wound revealed tender wound with erythema around it together with foul smell discharge, the patient condition deteriorated rapidly, removal of few stitches revealed frank fecal discharge coming from the abdominal cavity.

A decision for 2nd exploration was taken by general surgeon in the same hospital, multiple bowel injuries were found and were sutured. The abdomen was closed after thorough toilet.

Unfortunately the patient condition did not improve and in the second post op day, the patient developed severe abdominal flap and muscle necrosis and gangrene with frank exposure of the abdominal viscera and fecal soiling with visible multiple intestinal perforations.

The patient was referred to our surgical ward from Almuthana Hospital in a severe catabolic state. The abdominal wall was deficit from below xiphiosternum above to the pubic area below and laterally to the flanks, with severe sloughing, necrosis and gangrene of the edges and frank fecal soiling. She was kept on conservative treatment but the condition deteriorated rapidly and the patient developed chest infection, bed sores, DVT and finally death.

Discussion

Combined surgeries eliminate the need for two anesthetics and two hospitalizations, the postoperative period of convalescence is no longer than for either procedure alone, and the total cost is reduced significantly.

In this case there was combination of gynecological procedure (ovarian cyst surgery) with abdominoplasty. Till now there is no problem because it is possible to combine abdominoplasty with other procedures not only aesthetic surgery but bariatric, and gynecological procedures as shown in table I .

The patient was having many risk factors for each procedure.

First, for the ovarian surgery, the patient was having previous two operations for recurrent ovarian cyst which rise the possibility of adhesions which in turn make the subsequent surgeries difficult, with great chance of complications notably intestinal injuries and intestinal fistulae.

Second, regarding the abdominoplasty the history of heavy smoking and overweight are the most important factors that increase the risk of complications like flap necrosis and pulmonary embolism[1].

All these risks were not taken in to consideration which cause this disastrous complication and ended with patient's death.

Multiple bowel injures which were not managed properly during the first and second operations, with the massive abdominal flap and abdominal wall muscles necroses, all these squeals lead to multiple small bowel entero-cutaneous fistulae which resist conservative and surgical correction leading to severe catabolic state and finally, death.

The other thing, is the cause of death which is different than what is seen in literature. In this case it was due to multiple factors like enterocutaneous fistulae with severe catabolism, MOF, DVT rather than pulmonary embolism alone which is the common cause of death following such combined procedures the mortality rate was assessed at 19.1 per 100,000 procedures[2].

Review of literature

Voss et al[3] reported a series of 76 patients having abdominoplasty, 76 patients having gynecologic procedures and a group of 76 patients that underwent the abdominoplasty combined with a gynecologic procedure. They reported a 6.6% incidence of pulmonary emboli among the combined group, with no emboli occurring in the other 2 groups. They also noted a longer hospital stay and a higher incidence of blood transfusion in the combined group. Savage[4] reported 13 patients undergoing a combined abdominoplasty and TAH. One patient suffered from pulmonary emboli, prompting the author to warn against such a combination. Perry[5] reported 20 patients having abdominoplasty combined with gynecologic procedures. No serious complications occurred, and only one patient required transfusion. The author concluded that the combined procedure is safe and results in less overall morbidity and convalescent time than if the procedures had been done separately. Freedom[6] reported 129 patients having abdominoplasty combined with gynecologic procedures. The author advocated performing the combined procedures. Hester et al[7] presented their experience with 117 patients that had abdominoplasty alone; 230 patients had abdominoplasty combined with intra-abdominal procedures (96 TAH), and 216 patients had abdominoplasty done with another major esthetic procedure. They had 6 cases of pulmonary emboli, all occurring in the 2 combined groups. However, obesity and not the combination of procedures were found to be the more important factor. The authors conclude that extreme care must be taken when obese patients are planned to undergo a combined procedure. Grazer and Goldwyn[8] reviewed over 10,000 cases of abdominoplasty and reported a 1% incidence of pulmonary emboli. The incidence of pulmonary emboli in patients undergoing gynecologic surgery is reported to be 1% to 5%, depending on factors such as age and obesity[9-11]. Hensel[12] reviewed retrospectively 199 abdominoplasty patients during a 15-year period to

identify factors that affect overall outcome. The complication rate was 32% with few major complications (1.4%). Patients were divided into four groups based on tobacco use and history of diabetes and hypertension. There were no significant difference major complications between the subgroups.

Minor complication rates, however, were significantly higher in smokers and patients with diabetes and/or hypertension. Complication rates in patients undergoing intra-abdominal procedures combined with abdomino-plasty were not significantly different from those patients undergoing abdominoplasty alone. The authors conclude that abdominoplasty is a safe and satisfying procedure, whether performed alone or in conjunction with another procedure. There is, however, a significant incidence of minor complications, related primarily to wound healing. These complications are increased significantly in smokers and patients with diabetes and/or hypertension. When complications do occur they are minor and managed easily in an office setting.

Gemperli[13] performed either standard abdominoplasty or miniabdominoplasty on 103 patients who also underwent tubal ligation, total abdominal hysterectomy, or cholecystectomy. The combination of intra-abdominal procedure and standard abdominoplasty increased the time in the operating room by 40-90 minutes. Also increase the number of days of stay in hospital. Only 2 minor complications occurred: a seroma and a minor skin slough. Three patients required transfusion of autologous units of blood and none of them lost more than 500 ml of blood. None of the patients suffered a pulmonary embolism. In conclusion, good surgical teams can safely and effectively combine abdominoplasty with intra-abdominal procedures.

Lesson to learn

Usually abdominoplasty combined with other surgical procedure considered safe and have little morbidity and mortality if done in properly selected patient and in well trained hands.

Table I: Additional procedures performed at the time of Abdominoplasty

Total	142 (68.9%)
Cosmetic procedures	96 (46.6%)
Liposuction	54 (27.7%)
Mastopexy	22 (11.2%)
Breast augmentation	17 (8.7%)
Brachioplasty	12 (6.1%)
Lower body lift	12 (5.1%)
Breast reduction	9 (4.6%)
Nonabdominal panniculectomy	6 (3.1%)
Lesion removal/biopsy	5 (2.5%)
Blepharoplasty	2 (1.0%)
Breast Procedure (other)	2 (1.0%)
Capsulectomy	2 (1.0%)
Other	6 (3.1%)
Ventral hernia repair	32 (15.5%)
Gynecologic procedure	27 (13.1%)
Abdominal pelvic reconstruction	15 (7.2%)
Vaginal pelvic reconstruction	3 (1.4%)
Hysterectomy	11 (5.3%)
Salpingo-oophorectomy	9 (4.3%)
C-section	1 (0.4%)
Other	4 (1.9%)

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