Safe and Consistent Outcomes of Successfully Combining Breast Surgery and Abdominoplasty: An Update

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Background: Combined cosmetic procedures have become increasingly popular. One of the most common combinations of cosmetic procedures includes abdominoplasty and cosmetic breast surgery. The shortened recovery and financial savings associated with combined surgery contribute to the increased demand for these combined surgeries.

Objective: The goal of this study was to evaluate the safety and efficacy of combined abdominoplasty and breast surgery at a single plastic surgery practice that performs a large volume of these cases. This is an update to a study published in 2006.

Methods: A retrospective review was performed for patients who underwent combined abdominoplasty and cosmetic breast surgery during the last 10 years at a single outpatient surgery center. Abdominoplasty inclusion criteria were defined as lower, mini, full, reverse, or circumferential abdominoplasty. Cosmetic breast surgery inclusion criteria were defined as augmentation, mastopexy, augmentation-mastopexy, reduction, or removal and replacement of implants. Pertinent preoperative and intraoperative data were recorded along with complications and revisions.

Results: There were 268 patients during the 10-year period between 1997 and 2007. There were no cases of death, pulmonary embolism, deep venous thrombosis, or other life-threatening complications. The overall complication rate was 34%. Abdominoplasty seroma and scars requiring revision comprised 68% (n = 74) of the complications. The total revision rate was 13%.

Conclusions: Combined abdominoplasty and cosmetic breast surgery was safe and effective in this large series of cases performed at a single plastic surgery practice. The complication and revision rates of the combined surgery were similar to those reported for individually staged procedures. (*Aesthetic Surg J 2009;29:129–134.*)

The increased media coverage of aesthetic plastic surgery and the popularization of the "makeover" concept has resulted in greater patient demand for combined cosmetic procedures. The immediate gratification, expedited recovery, and financial savings associated with these procedures have become powerful motivators for patients to request combined surgery. Abdominoplasty and cosmetic breast surgery performed in one operation, which the popular media has called "the mommy makeover," exemplifies this concept. Women who would like to restore their figures following pregnancy have been increasingly likely to seek the assistance of a plastic surgeon. Because these combined procedures are being requested by patients more frequently, studies on the safety and efficacy of the operations are particularly valuable.

The safety of combined aesthetic procedures has been addressed in the plastic surgery literature.1-7 Our own group conducted such a study in 2006.8 In that study, 151 patients undergoing combined abdominoplasty and breast surgery were compared to 264 patients undergoing abdominoplasty alone over a 15-year period (1989 to 2004). No significant differences existed between groups with regard to either minor or major complications. The goal of the current study was to review the safety and efficacy of a large number of combined abdominoplasty and breast surgery cases performed by a single plastic surgery practice.

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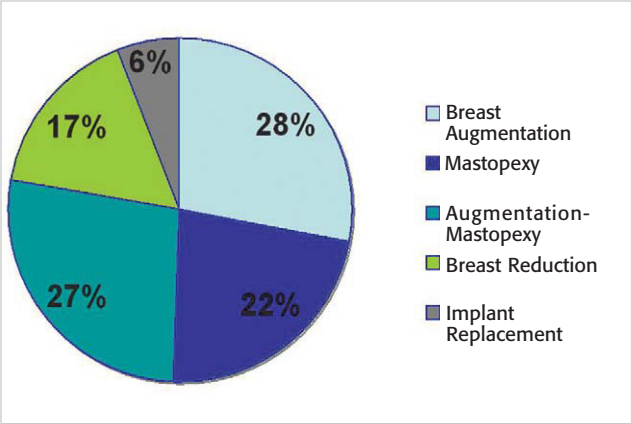

Figure 1. Proportion of each type of cosmetic breast procedure performed.

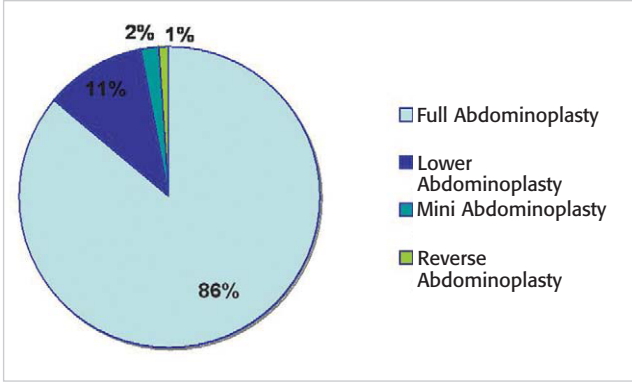

Figure 2. Proportion of each type of abdominoplasty procedure performed.

METHODS

A retrospective chart review was performed for all patients who underwent combined abdominoplasty and cosmetic breast surgery over a 10-year period (1997 to 2007). All of the surgeries were performed by one of two plastic surgeons (WGS or DAS) at a single outpatient surgery center. All patients had pneumatic compression devices placed before the induction of general anesthesia, which were maintained in the recovery room. All patients ambulated within 1 hour of the conclusion of the operative procedure. The patients were then discharged to an aftercare facility with nursing supervision for at least 1 night. They ambulated at least once per hour that evening and several times per day in the ensuing days.

The distribution of abdominoplasty procedures included lower, mini, full, reverse, and circumferential abdominoplasty techniques. The distribution of cosmetic breast procedures included augmentation, mastopexy, augmentation-mastopexy, reduction, and the removal and replacement of implants. Patients who underwent abdominal contouring or cosmetic breast procedures that did not fall into any of the above categories were excluded.

Complications were broadly defined as any documented intra- or postoperative adverse effect that included but was not limited to death, pulmonary embolus, deep venous thrombosis, seroma, hematoma, infection, wound dehiscence, necrosis, hypertrophic scars, suture abscess/extrusion, capsular contracture, contour irregularity, unacceptable residual adiposity, and unacceptable soft tissue laxity. Wound dehiscence and skin necrosis were further classified into either major or minor based on the need for intervention. Major wounds were defined as those that required some type of intervention, including regular dressing changes and secondary healing or surgical intervention.

All revisions that involved correction or improvement of the breast procedure or the abdominoplasty were noted. These included but were not limited to scar revision, correction of residual adiposity/soft tissue laxity, lateral dog ears, exchange of implants, revision mastopexy, umbilicoplasty, and revision lipoplasty. Exclusion parameters such as the length of time from operative date, type of anesthesia (local vs general), or the concurrent performance of the revision during a separate elective procedure were not applied to the revision data.

RESULTS

A total of 268 patients qualified for the study based on the requirements noted above. The mean patient age was 42 years (range, 21 to 77 yrs), the mean body mass index (BMI) was 25 (range, 17 to 40), and 8% of patients were smokers. Pertinent intraoperative data showed that the average operative time was 165 minutes (range, 60 to 330 min), the number of patients who underwent concurrent lipoplasty was 207 (77%), and the average lipoplasty aspirate volume for these patients was 1213 mL (range 200 to 4800 mL).

The proportion of each type of cosmetic breast procedure performed is shown in Figure 1. There were a total of 69 patients (29%) who underwent breast augmentation. Sixty-three patients (23%) underwent mastopexy alone and 75 underwent combined augmentation-mastopexy (28%). The other breast procedures performed were breast reductions or replacement of implants, which numbered 46 (17%) and 15 (6%), respectively.

The proportion of each type of abdominoplasty procedure performed is shown in Figure 2. The most common abdominoplasty procedure was full abdominoplasty and accounted for 86% (n = 231) of the abdominoplasty procedures performed. Lower abdominoplasty was the second most commonly performed technique and accounted for 11% (n = 29) of the abdominoplasty procedures. The percentage of patients who underwent a mini abdominoplasty or a reverse abdominoplasty was 2% (n = 6) and 1% (n = 2), respectively. No patients in this study underwent a circumferential abdominoplasty procedure.

There were a total of 109 documented complications in 90 patients resulting in a total complication rate of 34%. There were no incidences of death, deep venous thrombosis, pulmonary embolism, or other life-threatening complications. Seroma following abdominoplasty, minor wounds of the breast and abdomen, and scars requiring revision comprised 74 (68%) of the

Table 1. Proportion of each type of cosmetic breast procedure and abdominoplasty technique performed in the complication and revision group

Procedure (% of overall group; (n = 268)	Percent of complication group (n = 90)	Percent of revision group (n = 36)
Augmentation (26%)	20%	19%
Mastopexy (23%)	27%	25%
Augmentation-mastopexy (28%)	23%	34%
Reduction (17%)	20%	19%
Implant exchange (6%)	10%	13%
Abdominoplasty technique		
Lower (11%)	9%	13%
Mini (2%)	4%	3%
Full (86%)	85%	84%
Reverse (1%)	1%	0%
Circumferential (0%)	0%	0%

total complications documented. Of the 109 complications documented, 46 were associated with the breast component and 63 were associated with the abdominoplasty component of the combined procedure, comprising 42% and 58%, respectively, of the total number of complications documented. The proportion of each type of breast procedure and abdominoplasty technique performed in the complication group is shown in Table 1. Complications with respect to age, BMI, operative time, and smoking status are shown in Table 2.

There were a total of 40 revisions performed in 36 patients, resulting in a revision rate of 13%. Exactly 50% (n = 20) of the revisions were associated with the breast procedure and 50% (n = 20) were associated with the abdominoplasty component of the combined procedure. Scar revision of the abdomen and breast was performed in 25 out of the 40 revision procedures and constituted 63% of the total revisions performed. Revisions with respect to age, BMI, operative time, and smoking status are shown in Table 3.

The complication and revision rate of abdominoplasty procedures performed alone has been well documented in the plastic surgery literature.[9-14] The published complication rate of abdominoplasty procedures performed alone ranges between 10% and 40%. The published revision rate for abdominoplasty procedures performed alone ranges between 10% and 24%.

Table 2. Complications with respect to average age, BMI, operative time, and smoking status

	Complications (n = 90)	Overall group (n = 268)
Age (yrs)	42	42
BMI	25	25
Operative time (min)	171	165
Smoking status: (No. of patients with complications)	6 (7%)	21 (8%)

BMI, body mass index.

Table 3. Revisions with respect to average age, BMI, operative time, and smoking status

	Revisions (n = 36)	Overall group (n = 268)
Age (yrs)	43	42
BMI	25	25
Operative time (min)	168	165
Smoking status: (No. of patients with complications)	3 (8%)	21 (8%)

BMI, body mass index.

Similarly, the complication and revision rate of cosmetic breast surgery performed alone has also been well documented in the plastic surgery literature.[15-22] The published complication rate for cosmetic breast procedures ranges between 2% and 25% (augmentation 2% to 21%; augmentation-mastopexy 17% to 23%; and reduction 15% to 25%). The published revision rate for cosmetic breast procedures ranges between 2% and 26% (augmentation 2% to 19%; augmentation-mastopexy 9% to 17%; and reduction 11% to 26%). Patients undergoing staged abdominoplasty and cosmetic breast procedures are therefore potentially exposed to the additive complication rate range of 12% to 65% and the additive revision rate range of 12% to 52%.

The complication and revision rate of combined abdominoplasty and cosmetic breast surgery are comparable to those published for abdominoplasty and cosmetic breast procedures performed as staged procedures. When taking into account the additive complication and revision rates for staged procedures, the rates for the combined surgery reviewed in this series were even more favorable (Table 4).

Representative preoperative and postoperative photos are shown in Figures 3 and 4.

Table 4. Comparison of complication and revision rates of combined abdominoplasty and cosmetic breast procedures to the complication and revision rate of individually performed/staged procedures

Procedure	Complication rate	Revision rate
Combined abdominoplasty and cosmetic breast surgery	34%	13%
Abdominoplasty performed separately	10–40%	10–24%
Cosmetic breast surgery performed separately	2–25%	2–26%
Augmentation	2–21%	2–19%
Augmentation-mastopexy	17–23%	9–17%
Reduction	15–25%	11–26%

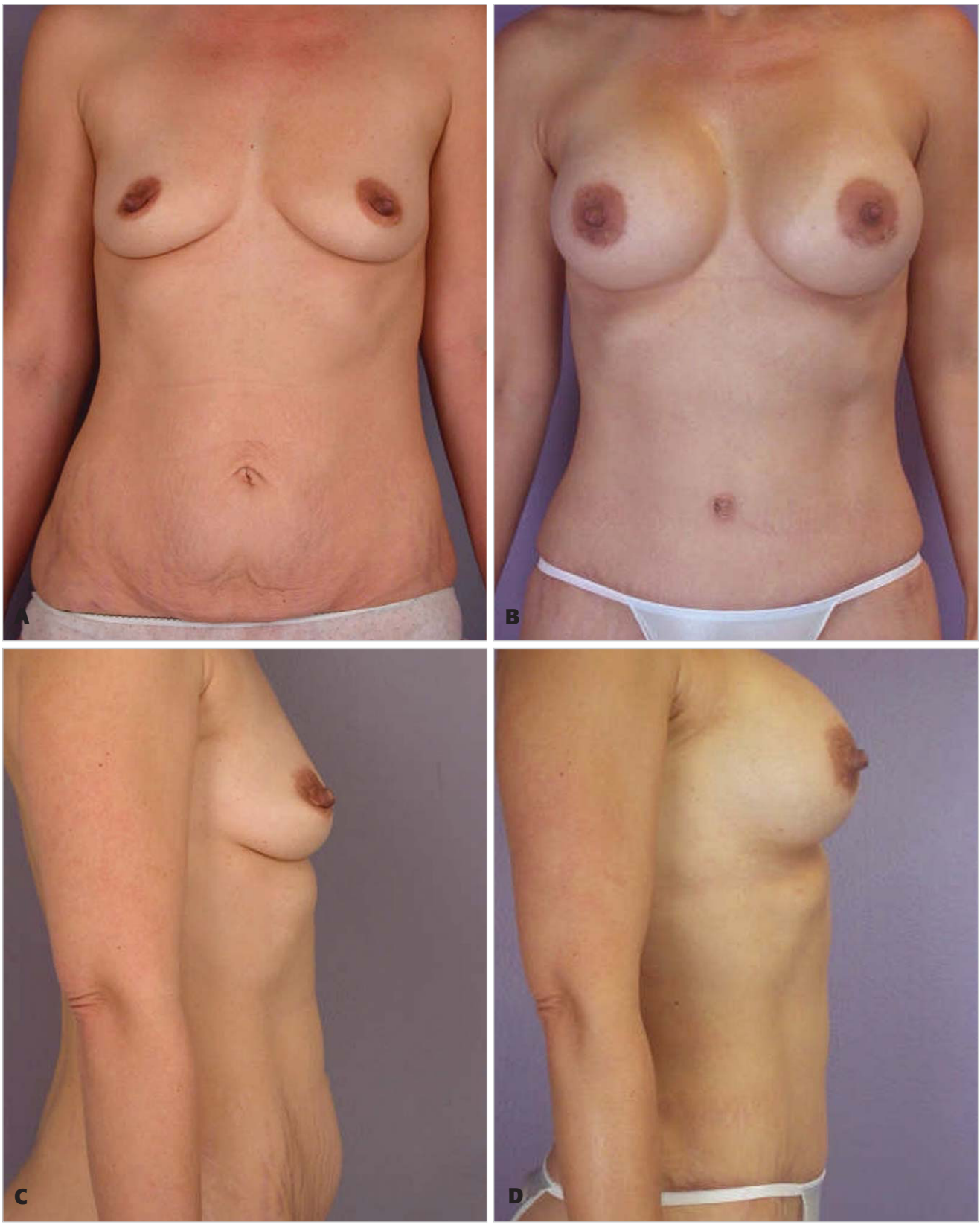

Figure 3. **A**, **C**, Preoperative views of a 43-year-old woman. **B**, **D**, Postoperative views 8 months after combined full abdominoplasty, breast augmentation, and concurrent lipoplasty of the abdomen, hips, and flanks.

CONCLUSIONS

Combined cosmetic procedures have become an increasingly common practice in recent years in part because of greater patient demand and the increasing presence of data supporting the conclusion that the procedures are both safe and effective. This large series study contributes additional data to support the safety of combined cosmetic procedures. The complication

Figure 4. **A**, **C**, Preoperative views of a 51-year-old woman. **B**, **D**, Postoperative views 3 months after combined full abdominoplasty and augmentation-mastopexy.

and revision rate of patients undergoing both abdominoplasty and cosmetic breast procedures is comparable to the published complication and revision rates of abdominoplasty and cosmetic breast surgery procedures performed separately. There were no documented cases of deep venous thrombosis. We felt that this was possibly secondary to a relatively short operative time (165 minutes), the placement of pneumatic compression devices and early ambulation, and continued regular ambulation. While a surgical revision rate of 13% is significant, it is important to recognize that in staged procedures, 100% of patients will have at least a second operation. It is also pertinent to note that there was no incidence of significant or life-threatening complications among this study group. These results, and the benefits to the patient of a single recov-

ery period and lower costs, support the safety and efficacy of these combined procedures. ◗

DISCLOSURES

The authors have no disclosures with respect to this article.

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