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Hybrid Breast Reconstruction: Preliminary Report

Sarah Calabrese, MD
Nicola Zingaretti, MD
Chiara Zanin, MD
Alessandra Fin, MD
Sebastiano Mura, MD
PierCamillo Parodi, Prof.

INTRODUCTION

Breast implant reconstruction still represents the major percentage among reconstructive procedures after mastectomy. Capsular contracture rates remain high despite the high level of technological development in the manufacturing of breast implants in recent decades.[1] Capsular contracture is the most important and the most investigated complication after breast implant positioning for both aesthetic and reconstructive surgery.[2,3] Among different types of therapeutic procedures, lipofilling has been employed in the aesthetic field to totally replace the deformed implant, and in the reconstructive field to reduce the implant complication rates in irradiated patients.[4–8]

Here, the authors present the Hybrid Breast Reconstructive (HBR) protocol: the association of lipofilling and implant during the 2-stage expander/implant procedure following mastectomy (Fig. 1).

MATERIALS AND METHODS

A retrospective analysis was conducted on 214 patients who underwent expander/implant reconstruction after mastectomy from January 2010 to December 2014. There were 130 patients for the control group, who underwent expander/implant standard reconstruction, and 84 patients for the case group, who underwent HBR protocol. Follow-up time of less than 12 months and direct implant reconstruction were exclusion criteria. For every patient, a series of data was recorded: general information, tumor histotype, presence of recurrence/metastasis, the execution of adjuvant therapy and hormone therapy, smoking habits, and presence of comorbidities. Complications were considered in 2 categories: early complications (hematoma, seroma, infection, and exposure) and long-term complications (implant rupture, capsular contracture, implant displacement/rotation, and pain onset in the breast region). Patients were asked to fill in a questionnaire[9] during the follow-up period (1 year after surgery).

RESULTS

Statistical analysis was performed using the Chi-square test, Fisher's exact test, and Wilcoxon-Mann-Whitney on the data regarding 214 cases. The 2 populations were homogeneous for age (mean age, 56.14 years), follow-up (average, 34.87 months; range, 12–60 months), and tumor histological type. Statistically significant differences between the 2 groups are found for smoking habit (greater in the control group), the type of prosthesis employed, and the execution of radiotherapy (higher in the case group). The primary outcome is the comparison of the capsular contracture rate between the 2 groups. A statistically significant lower rate of capsular contracture was observed in the case group ($P = 0.004$). Displacement/rotation ($P = 0.001$), hematoma ($P = 0.045$), and pain onset ($P = 0.013$) are statistically significant, with a higher rate in the control group. Comparing groups about patient self-assessment, we did not observe any statistical difference.

CONCLUSIONS

HBR protocol shows a long-term reduced rate of capsular contracture. Other aspects of the introduction of lipofilling at the time of the expander/implant reconstruction have to be considered.

In this article, we present our preliminary results of HBR protocol. We do believe that further studies with larger series, longer follow-up and control groups are necessary to definitively demonstrate its efficacy in the long-term or even its superiority over conventional methods.

Sarah Calabrese, MD
Department of Plastic Reconstructive Surgery
Ospedale "S. Maria della Misericordia"
Piazzale Santa Maria della Misericordia 15
33100 Udine, Italy
E-mail: sarah2012@hotmail.com; sarah.calabrese@hotmail.it

From the Plastic and Reconstructive Surgery, Breast Unit, University of Udine, Italy.

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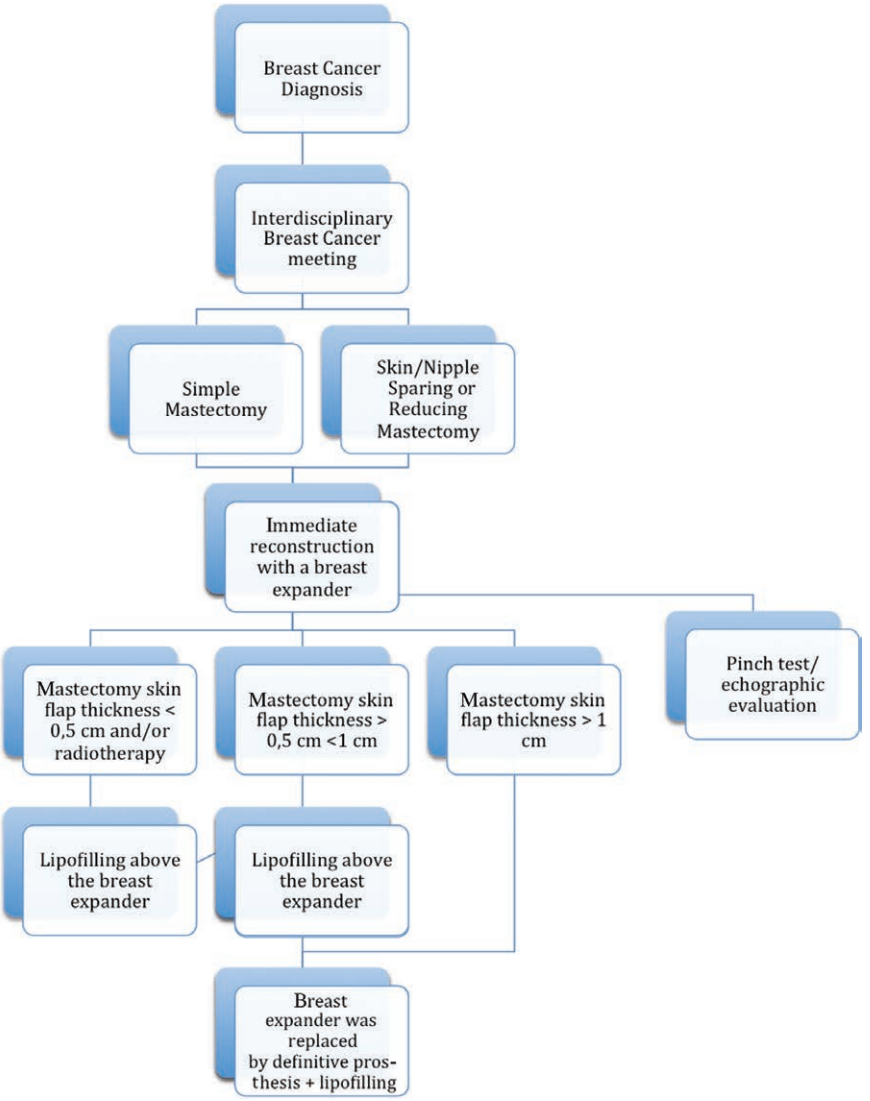

Fig. 1. Preoperative planning and our HBR protocol.

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REFERENCES

1. Cunningham B. The Mentor study on contour profile gel silicone MemoryGel breast implants. *Plast Reconstr Surg.* 2007;120:33S–39S.
2. Gampper TJ, Khoury H, Gottlieb W, et al. Silicone gel implants in breast augmentation and reconstruction. *Ann Plast Surg.* 2007;59:581–590.
3. Handel N, Jensen JA, Black Q, et al. The fate of breast implants: a critical analysis of complications and outcomes. *Plast Reconstr Surg.* 1995;96:1521–1533.
4. Sarfati I, Ihrai T, Kaufman G, et al. Adipose-tissue grafting to the post-mastectomy irradiated chest wall: preparing the ground for implant reconstruction. *J Plast Reconstr Aesthet Surg.* 2011;64:1161–1166.
5. Del Vecchio DA. "SIEF"—simultaneous implant exchange with fat: a new option in revision breast implant surgery. *Plast Reconstr Surg.* 2012;130:1187–1196.
6. De Biasio F, Zingaretti N, De Lorenzi F, et al. Reduction mammaplasty for breast symmetrisation in implant-base reconstructions. *Aesth Plast Surg.* 2017;41:773–781.
7. Auclair E, Blondeel P, Del Vecchio DA. Composite breast augmentation: soft-tissue planning using implants and fat. *Plast Reconstr Surg.* 2013;132:558–568.
8. Salgarello M, Visconti G, Barone-Adesi L. Fat grafting and breast reconstruction with implant: another option for irradiated breast cancer patients. *Plast Reconstr Surg.* 2012;129:317–329.
9. Zingaretti N, De Lorenzi F, Dell'Antonia F, et al. The use of "precapsular space" in secondary breast reconstruction. *Aesthetic Plast Surg.* 2016;40:716–723.