Breast Augmentation Using the Spectrum Implant with Exteriorized Injection Domes

Hilton Becker, F.A.C.S.

Boca Raton, Fla.

The author describes the use of implants with exteri- orized injection domes for patients undergoing breast augmentation. Domes were sutured for 1 to 5 days to allow the implant volume to be altered in the early post- operative period. Three hundred patients were treated with- out any infections. (*Plast. Reconstr. Surg.* 114: 1617, 2004.)

The use of implants with exteriorized injec- tion domes for patients undergoing breast aug- mentation for complaints of hypomastia is pre- sented (Fig. 1). Using this technique, the domes were exteriorized for 1 to 5 days, thereby allowing the volume of the implant to be altered in the early postoperative period. The advantage of this technique is that the injection dome can be removed a few days after surgery without the need for surgical removal. This technique was used in 33 cases without any infections.

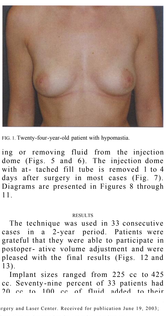

FIG. 1. Twenty-four-year-old patient with hypomastia.

METHODS

Breast augmentation is performed in the standard subpectoral fashion using a Spectrum implant (Fig. 2). The inframammary, transax- illary, or circumareolar incision is used. At the completion of the procedure, the fill tube of the spectrum implant is attached to a trocar (Fig. 3) and exteriorized through a long subcutaneous tunnel. The injection dome is then attached to the fill tube (Fig. 4).

From the Boca Raton Community Hospital, Boca Raton Outpatient Surgery and Laser Center. Received for publication June 19, 2003; revised February 9, 2004.

Dr. Becker owns a part interest in a company that receives royalties from Mentor Corporation for the adjustable implants.

DOI: 10.1097/01.PRS.0000139065.52203.2D

ing or removing fluid from the injection dome (Figs. 5 and 6). The injection dome with at- tached fill tube is removed 1 to 4 days after surgery in most cases (Fig. 7). Diagrams are presented in Figures 8 through 11.

RESULTS

The technique was used in 33 consecutive cases in a 2-year period. Patients were grateful that they were able to participate in postoper- ative volume adjustment and were pleased with the final results (Figs. 12 and 13).

Implant sizes ranged from 225 cc to 425 cc. Seventy-nine percent of 33 patients had 70 cc to 100 cc of fluid added to their

FIG. 2. Placement of the Spectrum implant into the pocket through a circumareolar incision.

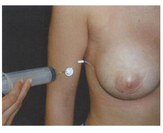

FIG. 5. Postoperative day 2. Saline (50 cc) is added to the exteriorized domes.

FIG. 3. Fill tube attached to a trocar.

FIG. 6. Postoperative day 2. Saline is added via the domes.

FIG. 4. Fill tube connected to the exteriorized dome.

FIG. 7. Postoperative day 2. Removal of the domes.

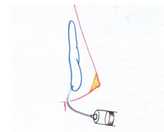

FIG. 8. Diagrammatic representation of intraoperative filling.

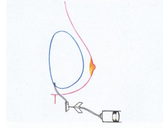

FIG. 10. Diagrammatic representation of final volume adjustment.

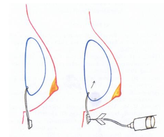

FIG. 9. Diagrammatic representation of *(left)* postopera- tive results and *(right)* saline being added by means of an external injection dome.

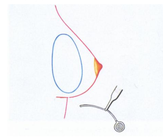

FIG. 11. Diagrammatic representation of removal of the external injection dome.

had no fluid added, and 9 percent (of the 33 patients) had 50 cc and 60 cc removed bilater- ally postoperatively. For 10 patients, the exte- riorized domes were removed on the first post- operative day; for 20 patients, the domes were removed on the second, third, or fourth post- operative day (nine, five, and six patients, re- spectively). One dome was removed on postop- erative day 5.

No complications have been seen as a result of retrograde infection from the injection dome. There have been no leakages following injection dome removal. The only problem has been early postoperative asymmetry as a result of seroma around the implants, which may lead to confusion as to postoperative volume adjustment.

DISCUSSION

Approximately 25 percent of patients under- going breast augmentation undergo a replace- ment operation within 5 years. A large percent- age of these are the result of patient requests for implant size change.[1]

After breast augmentation, patient dissatis- faction with size is very common. The use of adjustable implants largely overcomes this problem.2-4 A second minor procedure is nec- essary, however, to remove the injection dome. It was therefore decided to externalize the in- jection dome based on the work of Jackson and others.5-7 They describe the exteriorization of the expander injection domes for 10 to 76 days without any infection. This concept is further supported by the fact that many surgeons rou- tinely place drains into the implant pocket without concern for retrograde infection.

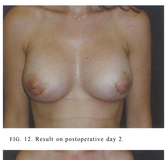

FIG. 12. Result on postoperative day 2.

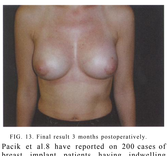

FIG. 13. Final result 3 months postoperatively.

Pacik et al.8 have reported on 200 cases of breast implant patients having indwelling pain control catheters for 24 to 48 hours without any infection. In this series, the majority of domes are removed in 48 hours. By placing the injection dome through a long subcutaneous tunnel, retrograde infection is averted. Care must be taken not to attempt to correct unilat- eral asymmetry postoperatively, as unilateral swelling may be deceptive.

CONCLUSIONS

The advantage of postoperative volume adjustment via an externalized injection dome has been demonstrated. Although the external dome limits the ability to control implant vol- ume compared with the buried injection dome technique, the buried injection dome tech- nique is still preferred. In a series of 33 pa- tients, there was no occurrence of retrograde infection.

Hilton Becker, M.D.
5458 Town Center Road, Suite 101
Boca Raton, Fla. 33486
hbeckermd@msn.com

REFERENCES

1. Mentor Corp. Breast augmentation: Is it right for you? Information brochure. Goleta, Calif.: Mentor Corp., March 2002.
2. Hidalgo, D. Breast augmentation: Choosing the opti- mal incision, implant and pocket plane. *Plast. Reconstr. Surg.* 105: 2202, 2000.
3. Becker, H. Adjustable breast implants provide postop- erative versatility. *Aesthetic Surg. J.* 20: 332, 2000.
4. Springer, R. The adjustable saline augmentation mam- moplasty. *Plast. Surg. Nurs.* 19: 19, 1999.
5. Persoff, M. M. Vertical mastopexy with expansion aug- mentation. *Aesthetic Plast. Surg.* 27: 33, 2003.
6. Jackson, I., Sharpe, D., Polly, J., Costanzo, C., and Rosen- berg, L. Use of external reservoirs in tissue expan- sion. *Plast. Reconstr. Surg.* 80: 266, 1987.
7. Jackson, I. Immediate breast reconstruction with pro- longed over expansion using the Becker permanent expander prosthesis. *Eur. J. Plast. Surg.* 15: 79, 1992.
8. Pacik, P., Werner, C., Jackson, N., and Lobsitz, C. Pain control in augmentation mammaplasty: The use of indwelling catheters in 200 consecutive patients. *Plast. Reconstr. Surg.* 111: 2003, 2000.