Commentary on: Transaxillary Endoscopic Breast Augmentation With Shaped Gel Implants

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There has been longstanding resistance to the transaxillary approach to breast augmentation because of a perceived lack of technical control. There is a growing body of literature, however, that suggests many of these views may be outdated and inaccurate. In their recent review article entitled “Evidence Based Medicine: Augmentation Mammaplasty,” Lista and Ahmad suggested that either inframammary or transaxillary incisions were preferred for breast implant placement.¹ Their article did not distinguish between the endoscopic and nonendoscopic transaxillary approaches. Two single-surgeon, large patient series supporting the non-endoscopic approach have recently been reported by Mills et al and Gryskiewicz and LeDuc and showed low complication and reoperation rates.²,³ Additionally, Gryskiewicz and LeDuc reported higher patient satisfaction scores reported by transaxillary patients compared with inframammary patients.³

To address the need for added technical control in transaxillary breast augmentation, the addition of endoscopic assistance was initially reported by Price et al in a series of patients undergoing saline implant placement in a partial subpectoral pocket.⁴ Long-term experience has since shown that endoscopic assistance has allowed for tissue visualization and control of creation of the device pocket in a way that matches the inframammary approach in how the partial subpectoral tissue pocket is created in preparation for implant placement.⁵ Mills et al compared available data on transaxillary breast augmentation outcomes in his non-endoscopic series compared with his endoscopic series and showed significant reductions in reoperations and malpositions in the endoscopic groups, with no differences in contracture and hematoma between endoscopic and non-endoscopic groups.²

From the initial description of transaxillary endoscopic breast augmentation using saline implants in a partial subpectoral pocket, there has been a progression of the technique to incorporate the changes needed to allow for successful placement of the device types available. The use of round silicone gel implants required modifications of incision design and a larger tissue tunnel at the entry point to the subpectoral space to facilitate device placement.⁵-⁹ The recent release of shaped, highly cohesive gel breast implants in the United States (US) has necessitated additional modifications of the technique to allow for placement of the more firm-textured, shaped devices with the correct vertical level of placement and orientation.¹⁰ Additional authors have shown excellent outcomes with low complication rates using endoscopic assistance, in spite of differing approaches in tissue plane, incision design, and device type.¹¹-¹⁸

This article provides another important addition to the growing body of literature that supports use of the transaxillary endoscopic approach for breast augmentation, specifically reporting a successful adaptation of the technique to allow placement of shaped gel implants in a large prospective patient series.¹⁹ A 4-step electrocautery dissection sequence is presented with endoscopic visualization. This sequence is important because successful placement of

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silicone gel devices of all types depends on the upper portion of the tissue pocket being dissected in a consistent way to create a tissue tunnel wide enough to allow for device placement. This is especially true for placement of shaped, highly cohesive gel devices available in the US, but it is also important with all gel devices to prevent rupture during placement.

The authors suggest that endoscopic visualization of the electrocautery dissection allows for precise pocket creation and minimization of bleeding. This is consistent with many previous publications on the subject. The authors also suggest that the endoscope allowed for precise division of the pectoralis major muscle and creation of a partial retropectoral plane and permitted creation of a precise tissue pocket tailored to the specific dimensions of the device used in each given patient. A partial retropectoral pocket was created with shaped cohesive gel implants used in all patients. The technique presented included the use of disposable sizers to evaluate the adequacy of the tissue release prior to permanent device placement with the assistance of the Keller Funnel™ 2. Orientation was confirmed with the aid of the endoscope. Drains were not used. An important aspect to the authors’ approach is the limited volume used, with mean implant volume 270 cc (range, 220-375 cc).

The authors reported follow-up ranging from 6 to 24 months, with mean of 10 months and median of 12 months. The photographic results shown reflect excellent aesthetic outcomes. This series emphasizes the selection of patients with no or minimal inframammary fold (IMF) definition common in Asian patients and consistent with the traditional indications for the transaxillary approach. The authors report no deformities of the IMF in the study population. Similar technical concepts can be successfully implemented for patients with all breast shapes and minimal ptosis as well.5-10

There are 2 additional issues of particular importance in reviewing this study. The first is that there were no instances of significant implant rotation or displacement, with the authors attributing this, at least in part, to use of the Keller Funnel™ 2 as an insertion sleeve. The authors state that the insertion sleeve aids in successful orientation of the device during placement. This is consistent with my early experience in placement of highly cohesive shaped gel devices as demonstrated at the SEPRS 2015 Atlanta Breast Symposium.10 The experience reported by the authors is remarkable, especially without the aid of drains in the early postoperative period. The second issue is the reported Baker 3 capsular contracture rate of 2.6%. This is consistent with Giordano who reported a 1.63% contracture rate.14 This is in contradiction to the data reported by Jacobson et al, who reported a 6.4% Baker II contracture rate in a small subpopulation of the overall series that had a transaxillary approach. In their series, Jacobson et al reported that there was no significant difference in Baker III contracture rate between the inframammary and transaxillary approaches.20 Relative to incision sites, transaxillary series reported by Mills et al and Gryskiewicz and LeDuc showed Baker III contracture rates less than 2% in large transaxillary reports where endoscopic assistance was not used routinely.2,3

This article is an important addition to the growing body of literature supporting the transaxillary approach to breast augmentation and effectively presents the advantages of endoscopic assistance. The ability to successfully place shaped gel implants, with avoidance of IMF deformities and device rotation, attests to the versatility of the transaxillary endoscopic approach. This report also highlights the advances in technique that have been possible in Asia due to the combination of highly refined surgical skill combined with the longstanding availability of shaped gel implants and the high priority of hidden incision approaches in that part of the world.

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