February 2016| Issue 2

INCISIONS & INSIGHTS

RECONSTRUCTION CHALLENGES

Solution for Expansion in the Narrow Chested Woman with MENTOR® ARTOURA™ Breast Tissue Expanders

Susan Downey, MD, MHA, FACS
Los Angeles, CA

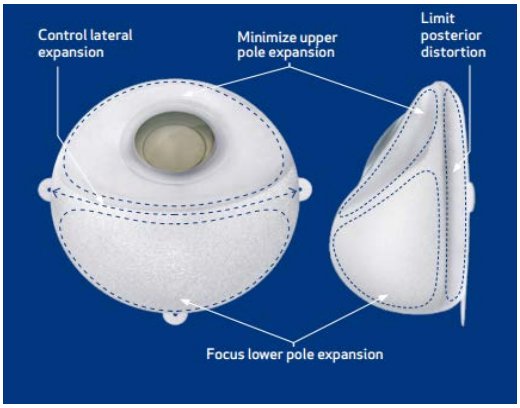
Restoring breasts which had been augmented with high profile implants to their original size and shape following mastectomies can be clinically challenging. Until recently, the only available expanders had an increasing base width as the volume increased. A clinical case is presented of a patient who underwent expansion following mastectomies with the ARTOURA Expander. She was able to achieve the desired volume without lateral expansion and improved comfort.

CLINICAL PROBLEM:

It is clinically challenging to restore augmented breasts to their original size and shape following mastectomies. Difficulties arise for a number of reasons, including tightness of skin on the chest wall and the narrow build of many of the relevant patients. Surgeons have been unpredictably filling the expander to volumes needed for the desired shape, and/or dimensions. Traditionally, this type of expansion has had undesirable effects, such as patient discomfort and reduced use of the arms due to lateral expansion of traditional expanders.

POTENTIAL SOLUTIONS:

For a narrow chested woman who wants significant projection and volume, the choices have been limited by the projection capacity of available tissue expanders. For instance, for a 650 cc volume expander, the following dimensions have been available: Allergan style 133 FX (extra projection range), which achieves a width of 14 cm and a projection of 7.1 cm, and MENTOR® CPX®4 (medium height), which achieves a width of 14.6 cm and a projection of 7.6 cm. However, there is now a new option that offers greater projection in a more narrow base width than the alternatives. The MENTOR® ARTOURA™ Breast Tissue Expander achieves a width of 13 cm and a projection of 8.2 cm for 650 cc of volume. The following case study shows the use of the new ARTOURA Expander in narrow chested women requiring significant projection.



CLINICAL CASE PRESENTATION:

A 45 year old woman (height 5' 4" weight 114 lbs) was diagnosed with breast cancer in 2014 after presenting with a mass in the right breast for 8 months. A bilateral mammogram demonstrated heterogeneously dense breast tissue and a 2 cm speculated mass with micro calcifications in the 12:00 posterior right breast. An ultrasound demonstrated 2 irregular solid masses. An ultrasound guided core biopsy showed that the pathology was a well-differentiated invasive ductal carcinoma, ER 80% weak-moderate, PR 30% weak, Her2/neu 3+ and Ki67 20%. The woman had a history of bilateral subpectoral saline implants (Allergan high profile implants filled to 320 cc) and a bilateral circumaerolar mastopexy. Figure 1 A, B C. She underwent neo adjuvant chemotherapy with abraxane, herceptin, and perjeta. After discussing the risk of nipple loss due to the previous circumaerolar incision, the patient chose to attempt nipple-sparing mastectomies. One month following the completion of her neoadjuvant chemotherapy, the

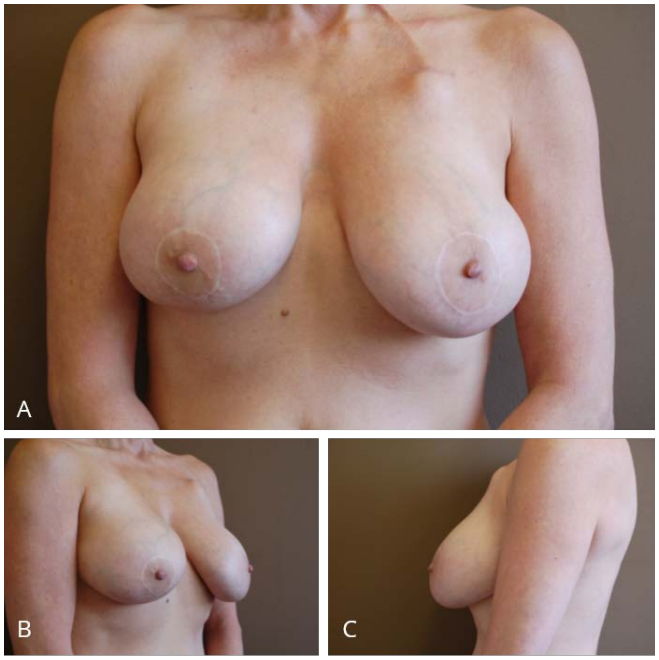


FIGURE 1: PREOP PICS

patient underwent bilateral mastectomies and removal of her saline implants through a modified mastopexy incision. (Figure 2.) The mastectomy specimens weighted 390 cc on the left and 405 cc on the right. A 600 cc expander was placed subpectorally with an ADM. Her postoperative course was complicated by full thickness loss on the right breast, which necessitated a return to the operating room for debridement and reclosure one month later. She continued to have complications and returned 6 weeks later to

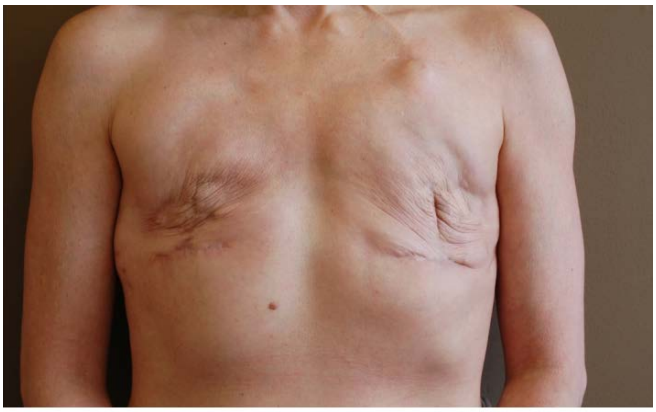


FIGURE 2: POST MASTECTOMY

have both expanders removed and the wound closed. She then underwent additional chemotherapy. Two months after completing her additional chemotherapy, the patient underwent placement of bilateral high profile ARTOURA Expanders (535 cc), as well as acellular dermis to the right breast. No saline was added to the expanders at the time of its initial placement. Twelve days following the surgery, she began the expansion process. Figure 3 A, B, C. The expansion process took three months. The patient noted the lack of lateral expansion compared to her previous expanders and stated that the ARTOURA Expanders were more comfortable. Six weeks following the completion of expansion, she underwent removal of the expanders and placement of silicone implants. At the exchange surgery, she also underwent placement of additional acellular dermis as well as fat grafting to the right breast. The implants placed were smooth round MENTOR® MemoryGel® Breast Implants with a volume of 500 cc and a base diameter of 13.2 cm.

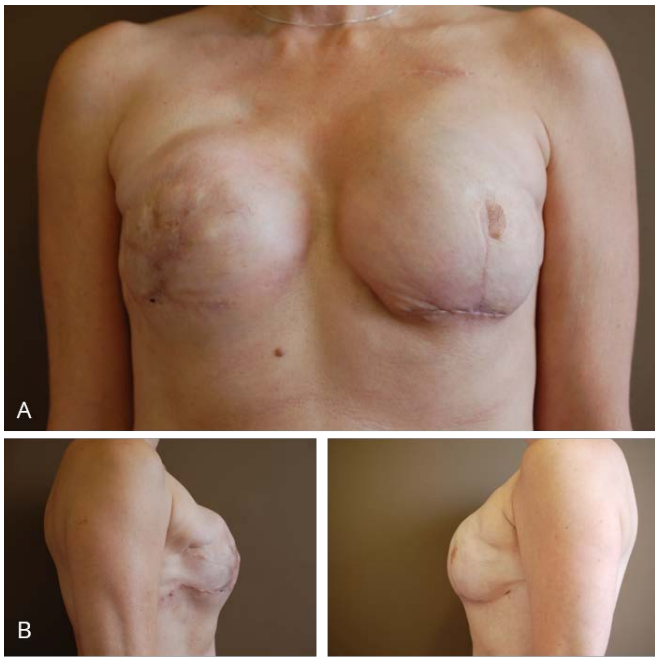


FIGURE 3: ARTOURA Expander

DISCUSSION:

The previously augmented patient who is undergoing a mastectomy can be a difficult patient to reconstruct. Often these patients have a narrow chest and had a larger breast relative to their frame. This is especially true for patients who had been augmented with high profile implants, as this patient had been. Most often these patients would like to be reconstructed back to a size similar to their augmented size. Previously available expanders had an increasing base width that correlated with the increasing volume. In a narrow chested woman, this means that as the expansion progresses to achieve the desired projection and volume the expander could be felt extending into the lateral chest area and could be uncomfortable and limit arm mobility. This patient who had previously undergone augmentation with high profile implants was able to be reconstructed to a volume that she was pleased with despite having had wound healing issues and a narrow chest base. In addition, she was pleased with the added comfort of the MENTOR® ARTOURA™ Breast Tissue Expander, as she had been anticipating the feel of the lateral expansion that she had experienced with her first attempt at reconstruction.