



# Emerging Solutions In Breast Brachytherapy

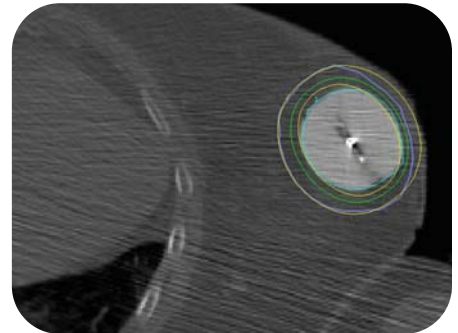
## SAVI™ CLINICAL CASE REVIEW

**Patient:** 54-year-old female

**Diagnosis:** T1bN0 ER+/Pr+/Her-2/Neu-

**Rx:** 34Gy B.I.D. x 5 days delivered via cavity conforming applicator

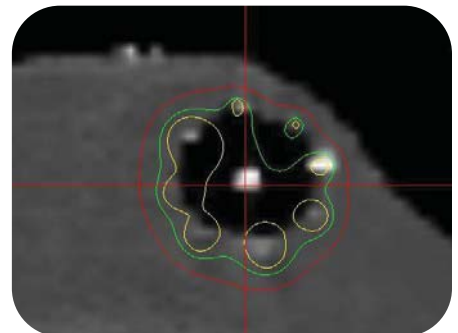
**Challenge:** Minimal Skin Separation



**Figure 1** CT image of balloon confirms insufficient cavity skin spacing

A 54-year-old female underwent a lumpectomy and sentinel node dissection for stage I breast cancer. She had no prior history of breast cancer. Sutures were used to close the skin and subcutaneous tissue.

The patient returned for post-lumpectomy placement of a HDR applicator. Ultrasound assessment revealed the cavity to be 9.6mm from the skin. A MammoSite® (Cytyc, Inc.) balloon catheter was placed in the lumpectomy cavity. CT scans demonstrated a balloon to skin spacing of less than 5mm which contraindicated the use of a balloon catheter. (Figure 1) The balloon was deflated and removed. An 8-1 SAVI™ applicator (Cianna Medical, Inc.) was selected.



**Figure 2** CT image of 8-1 SAVI applicator implanted into lumpectomy cavity

Using the expansion tool, the applicator was deployed, allowing the surrounding tissue to conform to individual catheters. A CT scan was performed that verified the applicator was properly placed. (Figure 2) The CT images were exported to the HDR treatment planning computer. The expansion tool was then removed and the incision site was dressed with sterile bandages and a surgical bra. (Figure 3)

34 Gy was delivered B.I.D. for 5 days. Dressings were changed at each fraction. Following NSABP B-39 dosimetry criteria as a guideline, the treatment yielded the following data:

PTV	V90	V100	V150	V200	Max Skin Dose
70.5cc	93%	64.1cc	30.8cc	14.3cc	272 cGy



**Figure 3** Sterile dressings and surgical bra applied

**Conclusion: The multiple, peripheral source lumens of the SAVI applicator allowed for significant dose modulation at the thinnest skin spacing (max skin dose <100%) while maintaining excellent target volume coverage. Sculpting of the 3-D dose delivered is easily accomplished with the SAVI device.**



Case and photos provided by Coral Quiet, MD.  
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