Consensus Statement for Accelerated Partial Breast Irradiation

Accelerated partial breast irradiation (APBI) is a technique in which the portion of the breast at the highest risk of recurrence (the tissue surrounding the lumpectomy cavity) receives a shortened course of high-dose radiation therapy. Several techniques can deliver this therapy, including multiple catheters placed through the breast; a balloon catheter or a multicatheter single-insertion device placed into the lumpectomy cavity; localized 3-D conformal external beam radiation; bead or seed implants; single-dose intraoperative treatment; as well as others. Several single-institution, nonrandomized studies using the interstitial multicatheter technique in properly selected patients have shown low local recurrence rates that are comparable to standard whole-breast external beam radiation therapy. In addition, several papers have been published on MammoSite intracavitary brachytherapy with up to 6 years of follow-up that also show low local-recurrence rates (<5%) comparable to standard whole-breast irradiation with good/excellent cosmesis in ~90% of patients.

Based on the available data, The American Society of Breast Surgeons acknowledges the following:

1. Patients should be carefully selected for APBI and properly informed of the benefits and risks of this type of radiation treatment. The American Society of Breast Surgeons recommends the following selection criteria when considering patients for treatment with APBI, as a sole form of radiation therapy in lieu of whole breast irradiation:

   - Age 45 years old or older for invasive cancer and age 50 years or older for DCIS
   - Invasive carcinoma or ductal carcinoma in situ
   - Total tumor size (invasive and DCIS) less than or equal to 3 cm in size
   - Negative microscopic surgical margins of excision
   - Sentinel lymph node negative

2. Surgeons, radiation oncologists and physicists who will be utilizing the various APBI techniques should be adequately trained to allow for optimum radiation therapy planning and treatment, including proper 3-D treatment planning.

3. Multilumen catheter devices or multicatheter interstitial techniques may provide more flexibility in treatment planning for thin skin-to-lumpectomy cavity distances or devices that abut the pectoralis muscle to avoid high skin and chest wall doses.

4. All patients should be monitored regularly to identify adverse events as well as local recurrences.

5. The published data for APBI supports the recommendations summarized above. Continuous, long-term, outcomes-based monitoring of APBI is desirable. The American Society of Breast Surgeons maintains an ongoing MammoSite® Registry (registration completed in 2004), collecting data on 1440 patients treated via the MammoSite balloon catheter technique. As is the case with all cancer treatments,
participation in multi-institutional clinical studies, including NSABP/RTOG B39, or in single-site protocols, or in the context of data-gathering registries, is desirable, if available.

6. These recommendations are intended as a guide to treat patients but individual treatment decisions could allow treatment outside of the parameters listed above with appropriate discussion with the patient.

For more information on the recent San Antonio Breast Cancer Symposium data, please see the Society’s press release from December 8, 2011 available at: https://www.breastsurgeons.org/news/article.php?id=122

References


Revised, August 15, 2011

Board of Directors

The American Society of Breast Surgeons