

# BrachyBytes

A Standard of Care Option for Breast Conserving Therapy.



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## A New Clinical Study Demonstrates Three-Fraction APBI Delivered with Brachy Applicators is Feasible and Safe



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A big leap forward in breast brachytherapy is here! The TRI-fraction Radiotherapy Utilized to Minimize Patient Hospital Trips, or the TRIUMPH-T Trial, has published first results in The International Journal of Radiation Oncology ([click here for full article](#)) demonstrating that condensing Accelerated Partial Breast Irradiation (APBI) to 2 or 3 days is well tolerated with low toxicity and excellent local control.

"This shortened course of brachytherapy is probably the most important development in breast brachytherapy over the last several years," commented Atif Khan, radiation oncologist, Memorial Sloan Kettering Cancer Center, New York, NY. "We have reported an experience of 200 patients (a very respectable sized cohort) and have prospectively demonstrated that the technique is safe and easy to implement across different practice types. I think this type of abbreviated course of highly localized partial breast irradiation will be a very attractive option for many patients."

APBI using intra-cavity catheters, either single entry or interstitial, in 10 treatment fractions over 5 days is a well-established treatment option for women with early stage breast cancer who meet the selection criteria of established guidelines by major medical

societies, (ASTRO, ABrS, ABS, SSO).

Clinical benefits of targeted radiation delivered by brachytherapy include reduced radiation exposure to healthy tissue, better cosmetic results and fewer long-term side effects. The potential additional benefits of treating a patient with brachytherapy in only 2 days includes a reduction in the treatment time and an elimination of delays in systemic/local therapy and a reduction of treatment time.

Another factor to consider: women who due to socioeconomic or geographic reasons who are limited in their ability to travel to the nearest radiation center, may be choosing mastectomy instead of the advantageous option of breast conserving surgery plus radiation rather than endure a long radiation treatment timeline. The value for women to complete radiation treatment in only 2 days, allowing her to return to family, work and resume her life, is immeasurable.

TRIMUPH-T Trial enrolled 200 patients, with a mean follow up of 10 months in this first results, explored treating regimens with a brachytherapy applicator over an abbreviated period of 2-3 days. The dose prescription assigned was 3 fractions at 7.50 Gy each fraction. Professor Roger Dale of the Imperial College in London, a world's foremost authority in radiobiological modeling for breast cancer, participated in the trial to calculate the shortened schedule to produce the same results in tissue as a fractionated course of radiotherapy to 50 Gy in 25 fractions.

Previous studies by the Cancer Institute of New Jersey already showed that this approach to giving treatment is safe, however the TRIUMPH-T Trial encompassed a larger cohort of patients and more closely monitor the toxicity rates. The final two year follow up is due in August 2019.

## TRIUMPH-T Quick Overview on First Reported Results

200 patients enrolled 8/15 – 8/17

### Primary Objective:

- Toxicity @ 2 yrs.
- **Goal: <10% serious toxicity rate\* (Grade 3 or above)**
- Results Grade 3 N=3 (1.5%) N=11 upper limit

### Secondary Objectives:

- Cosmesis @ 2 yrs.
- **Goal: >80% good/excellent**
- Results: 97.25% good/excellent

### Local control @ 3 yrs.

- **Goal: ≤5% recurrence**
- Results 1% (Local control 99%)

### TRIUMPH-T Trial Participating sites:

Arizona Breast Cancer Specialists (Scottsdale, AZ), Indiana University School of Medicine (Indianapolis, IN), Montefiore Medical Center (Bronx, NY), William Beaumont Hospital Radiation Oncology (Royal Oak, MI), Bryn Mawr Hospital Cancer Center (Bryn Mawr, PA), University of California San Diego Health System (La Jolla, CA), and 21st Century Oncology of Michigan (Farmington Hills, MI).

*Atif Khan, MD, a radiation oncologist at Memorial Sloan Kettering Cancer Center, New York, NY is the principle investigator of three breast fractionation trials. He has authored or co-authored several papers and book chapters.*

## Connect with us at Upcoming Events!



**Surgical Society of Oncology**  
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**American Society of Breast Surgeons**  
May 1–5 [Register Now](#)



**American Brachytherapy Society**  
June 13–15 [Register Now](#)



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