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MammoSite Therapy for Early Stage Breast Cancer: Convenient Breast Conservation Therapy

Progress in breast cancer therapy has been one of the success stories in oncology over the past 30 years. While there is still room for improvement, many women currently have a better outcome than their parents' generation both in terms of survival and less treatment side effects.

Breast cancer is the best example in oncology of effectively combining the major cancer treatment methods (surgery, radiation and chemotherapy) to improve the outcome for women. Previously the main treatment for breast cancer was radical mastectomy, removal of the breast, which sometimes resulted in a poor functioning and swollen arm. Nationwide studies completed in the early 1980s showed that removal of the breast was not necessary to cure many early stage cancers. Breast cancer patients who have a lumpectomy, which is the removal of a cancerous tumor, followed with six to seven weeks of whole breast radiation have the same chance of cure as performing a mastectomy.

At Bassett Healthcare there is a new form of radiation treatment available for select breast cancer patients. "Bassett's new MammoSite Radiation Therapy System reduces the breast radiation treatment time from six weeks to about five days," says Bassett Healthcare's Chief of Radiation Oncology Timothy Campbell, M.D. "The treatment is appropriate for selected patients as an alternative to the traditional six to seven weeks of breast radiotherapy. MammoSite therapy can be effective and more convenient for some of our patients. We know that some women in rural areas choose mastectomy because traveling a great distance for daily radiation is a problem. With MammoSite we can offer breast conserving cancer treatment to more patients."

MammoSite's method of partial breast irradiation works by delivering radiation from inside the breast directly to the tissue where cancer is most likely to recur. Treatment with this new technology is a two-stage process: first the placement of the MammoSite balloon in the tumor cavity and then radiation is delivered to this area.

“Just after lumpectomy surgery or as long as ten weeks after removal of the tumor, an uninflated balloon is placed inside the tumor cavity through a small incision,” explains Dr. Campbell. “Once in place, the balloon is inflated with fluid to fit snugly into the tumor cavity, and the breast is bandaged so the patient may safely return home.”

After the balloon is placed and inflated by the surgeon, the radiation oncologist, a specialist in treating cancer with radiation, takes images of the balloon in the breast to determine if the treatment will be appropriate to treat the cancer. The radiation therapy requires two visits each day over the five-day treatment period. At each treatment visit, a tiny radioactive “seed” travels through a catheter tube from a machine into the inflated MammoSite balloon inside the breast. The “seed” remains in the balloon for five to 10 minutes while it delivers the radiation treatment.

After the last treatment the balloon is deflated and removed. “No radiation remains in the body between treatments or after the final treatment,” says Dr. Campbell. “For appropriate patients whose cancer can be effectively treated with this technique, the therapy can be safely delivered in less total time than traditional radiotherapy.”

For more information on the newest technology and treatments for cancer, including MammoSite, call Bassett Healthcare’s Regional Cancer Program at 1-800-BASSETT (1-800-227-7388).

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