HealthManagement
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Radiation for Early-Stage Breast Cancer

When a woman is confronted with a cancer diagnosis, there seems to be more questions than answers. If cancer is detected at an early stage, treatment can start sooner to ensure better outcomes. The fear of the unknown, such as radiation treatment, could also cause anxiety. However, there is good news.

As an alternative to a mastectomy or whole breast radiation, Hologic offers a breakthrough early stage cancer treatment by way of targeted radiation therapy with balloon brachytherapy. This solution targets the lumpectomy cavity specifically, in other words, the area where the cancer is most likely to recur. By doing so, healthy tissues and organs are spared the damaging effects of radiation.

There is a choice of two systems, MammoSite® and Contura®. A legacy balloon system, MammoSite® offers two configurations: single lumen and multi-lumen catheters, which has four offset lumens that optimise the dosage to minimise exposure to skin. The balloon is fitted with a stylet that helps the user to position it after implantation.

The Contura® multi-lumen balloon (five), a single applicator, comes in two sizes and two shaft configurations. The user can move the isodose curve from the chest wall. One can remove fluid or air via the two vacuum ports on the proximal and distal ends of the balloon.

After seven years, positive clinical data show that over 90 000 women have been treated successfully. The American Society of Breast Surgeons conducted a MammoSite Breast Brachytherapy Registry Trial (N=1440) that showed favourable results regarding treatment efficacy, cosmesis and toxicity.
The results show:
• Excellent/good cosmesis was observed in:
o 91.3% of patients at 5 years.
o 90.5% of patients at 6 years.
o 90.6% of patients at 7 years.
• Overall rate of fat necrosis was 2.5% with an infection rate of 9.6% and few late toxicity events beyond 2 years.
• Overall symptomatic seroma rate was 13.4% and 0.6% beyond 2 years.
• Ipsilateral breast tumour recurrence (IBTR) was developed in 41 cases (2.8%) for a 5-year actuarial rate of 3.8 % (3.7% for IBC and 4.1% for DCIS).

Results after five years of the Initial Clinical Trial of MammoSite® Balloon Brachytherapy for Partial Breast Irradiation in Early-Stage Breast Cancer involving 43 patients7 show:
• No local recurrences.
• 83.3% of patients had good/excellent cosmetic results.
• 100% of patients would recommend MammoSite® targeted radiation therapy to a friend or family member.
• 100% of patients would use MammoSite® targeted radiation therapy if they had to do it over.

Based on these results, the outcomes seem very positive for patients, giving hope to deal with a situation that would otherwise be scary. This is the good news.

Users should be in mind that the safety and effectiveness of the MammoSite® radiation therapy system (RTS), MammmoSite® ML radiation therapy system and the Contura® applicator as a replacement for whole breast irradiation in the treatment of breast cancer has not been established.

Source: https://www.hologic.com/hologic-products/breast-health-solutions/breast-brachytherapy#overview

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