

## The Evolution of Breast Radiotherapy - Breast Cancer in Young Women

Despina Katsochi

Radiation Oncologist, Md PhD

Once the diagnosis of cancer is made, multidisciplinary coordination among breast and reconstructive surgeons, radiation and medical oncologists, and radiologists and pathologists facilitates treatment planning and streamlines patient care.

Breast cancer in young women is in itself a biologically unique disease, requiring customized management strategies. Earlier research has shown that women diagnosed younger than age 35 are more likely to have breast cancer return to the same area than older women with the same disease stage.

The type of radiation therapy (RT) given after surgery for breast cancer varies with the primary surgical procedure:

- Breast irradiation for women undergoing breast conserving therapy (BCT)
- Chest wall irradiation for women who have undergone mastectomy

Moderate dose RT, which is given after breast conserving therapy to eradicate any foci of residual microscopic disease, is associated with a large reduction in the rate of local recurrence and a beneficial impact on survival as well. Radiation therapy (RT) is an essential component of BCT. Whole breast irradiation provides adequate control of microscopic residual disease, permits the preservation of a cosmetically satisfactory breast, and improves survival. Three-quarters of true in-breast recurrences occur at the site of lumpectomy and therefore partial breast irradiation (PBI) is an alternative strategy whereby only the tumor bed and surrounding tissue are irradiated following breast conserving surgery.

Irradiation of the chest wall following mastectomy has two potential benefits: a decrease in the rate of locoregional recurrence and an increase in long-term survival.