Toxicity and Cosmesis from RTOG 95-17: A Phase I/II Trial to Evaluate Brachytherapy as the Sole Method of Radiation Therapy for Stage I and II Breast Carcinoma

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Background: RTOG 95-17 is the only completed cooperative group trial that evaluated multi-catheter breast brachytherapy (BTx) for early stage invasive breast cancer. Cosmesis and toxicity outcomes are presented.

STUDY DESIGN:
- Institutional Brachytherapy Credentialing by RTOG
- Institutional Radiation Oncology Record
- Breast Conserving and Auxiliary Surgery
- Verification of Histology and Eligibility Criteria
- Technical Feasibility and Reproducibility

Eligibility:
- Stage I–II (AJCC 5th and 6th ed) invasive breast cancer, including ductal carcinoma in situ (DCIS), with or without axillary lymph nodes.
- Tumors 2 cm or smaller, negative surgical margins (no tumor at ink). Tumors with an extensive intraductal component or lymph nodes with extracapsular extension were excluded.
- Eligible patients from 1997-2000, 99 were eligible; 66 were treated with HDR and 33 with LDR. Chemotherapy, if given, was delivered prior to BTx.

RESULTS:
- IPMTB results in excellent-good cosmesis in the majority of patients at 3 years following treatment. Patients tend to grade cosmesis more favorably than physicians.
- These toxicity and cosmesis results, delivered in the cooperative group setting, are similar to single institution multi-catheter BTx series. Long-term toxicities and tumor control rates have previously been reported by RTOG for this trial; updated toxicity and cosmesis data is presented here.

CONCLUSIONS:
- Patients treated with BTx have excellent cosmesis and low toxicity in the majority of patients, with long-term follow-up.
- Radiation oncologists; Patients tend to grade cosmesis more favorably than physicians.
- Compare toxicity and cosmesis profiles of PBI to whole breast irradiation. RTOG 0413/NSABP B-39 is currently accruing patients toward this end.

REFERENCES: