

AbstractID: 9384 Title: Radiotherapy Treatment of the Chest Wall Postmastectomy with Immediate Reconstruction Using Bolus

Postmastectomy radiation has been reported to increase complications of immediate breast reconstruction when using standard bolus techniques. Standard chest wall treatment employs the use of bolus to increase dose to the mastectomy scar and subcutaneous tissues. In this study we report on the routine use of a custom bolus during radiotherapy treatment of the chest wall for thirty-nine consecutive patients with immediate breast reconstruction between 7/98 and 12/01. Treating in this method raises the dose to subcutaneous tissues of the reconstructed chest wall to approximately the same as a non-reconstructed chest wall. Median dose was 5000 cGy in 2.0 Gy fractions. Average time between reconstruction and treatment was 7 months in primary patients and 63 months for recurrent patients. Median follow-up was 17 months post radiation. Reconstruction type was tissue expander (26), TRAM flap (11), and long term saline implant in one. All patients were treated using the custom bolus technique. Thirty-five (90%) had good or excellent cosmetic results based on chart review. Four had fat necrosis but continued to have good or excellent cosmetic result. Three developed radiation related contracture, with two being revised and ultimately a good cosmetic result. Two patients developed infections and required implant removal, with one undergoing second reconstructed ultimately having an excellent cosmetic result. Two experienced local relapse. This technique of postmastectomy radiation in patients with immediate breast reconstruction appears promising, with a very high rate of good or excellent cosmesis and a low risk of serious complications.