



MEDICAL THERAPIES AND PHARMACOLOGY

IMAGE GUIDED SUPERFICIAL RADIOTHERAPY(IGSRT) TREATMENT OF EARLY STAGE NON-MELANOMA SKIN CANCER(NMSC) SHOWS EXCELLENT LOCAL CONTROL AND COSMESIS IN THE OUTPATIENT DERMATOLOGY CLINIC IN NEW YORK.

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Introduction: Non-Melanoma Skin Cancer(NMSC) is generally treated in dermatology offices using invasive techniques.

Objective: We evaluate the feasibility, tolerance, effectiveness and cosmesis using an office-based non-invasive modality for NMSC.

Materials and Methods: Between April 2017 and August 2018, 78 patients with 111 pathologically confirmed early stage NMSC lesions treated with Image Guided Superficial Radiotherapy(IGSRT) were analysed. All lesions received twenty fractions of 50 or 70 kiloVoltage(kV) IGSRT given three or four times weekly. Energy selection and subsequent kV changes were determined by ultrasound imaging of the lesion and tumor characteristics. RTOG toxicity scoring was used. Treatment interruption was defined as greater than 2 weeks. Patients were followed initially 2-3 weeks after completion and every 2-8 weeks thereafter until there was no evidence of disease(NED) or failure. Thereafter, patients returned to their dermatologists for continued follow up.

Results: Median age was 70. At an average followup of 6.2 months, 77 of 78 patients were alive. One patient expired from unrelated causes while NED. On initial post-treatment skin check, 63% of lesions were NED. Others continued followup and all lesions ultimately achieved local control(LC) within 4 months thereafter. Disease Free Survival(DFS) and LC were both 100%. Acute toxicities were RTOG grades 0, 1 or 2 in all lesions with no grade 3/4 toxicity. Cosmesis was felt to be overwhelmingly excellent by the clinicians with no poor/unacceptable cosmesis. There were no severe toxicities or complications requiring treatment interruptions nor local failure/persistent disease requiring surgical salvage.

Conclusions: Office based IGSRT is feasible, safe, and easily tolerable. This regimen is highly effective with 100% LC and DFS and achieves generally excellent cosmesis. IGSRT





is an outstanding non-invasive therapeutic option for NMSC and provides another valuable tool for dermatologists.

