

High Dose Rate Brachytherapy in Elderly Patients with Non-Melanoma Skin Cancer - Clinical and Cosmetic Outcome

Wednesday 3:10-3:20 PM | SSM24-02 | Room: S104A

PURPOSE

High dose rate brachytherapy (HDRBT) is a well-recognized, but little used form of therapy for early stage non-melanoma skin cancer of the head and neck region. It offers a shorter course of therapy in the elderly population making it an attractive alternative to conventional electron therapy or surgical resection. We present a large series of patients treated with HDRBT using superficial molds with mature follow-up at a single community institution.

METHOD AND MATERIALS

Seventy patients with 81 lesions of either Basal cell carcinoma (BCC, n=53) or Squamous cell carcinoma (SCC, n=28) were treated between August 2013 and April 2019. The sites included nose (n=37), face (n=11), forehead/scalp (n=9), ear (n=8), neck (n=2), and legs (n=14). The median age of the patients was 85 years (range 70-100). The mean size of the lesion was 10 mm (range 3-26mm). Customized Leipzig applicators were used to treat the lesion with a 4 mm margin. A fractionation regimen of 700 cGy per fraction for 6 sessions over two weeks was used. The dose was prescribed at 3 mm depth. The patients were followed regularly in both radiation oncology and dermatology clinics.

RESULTS

The median follow-up was 24 months (range 1-48). The local control was 98% for BCC and 96% for SCC respectively. Two patients, 1 each with SCC and BCC recurred at 3 and 6 months from the time of therapy respectively. Both the recurrences were >2cm in size and involved lower extremity. The cosmetic outlook was excellent in 90% of all cases. Minor late effects in 6 patients included Hypopigmentation (n=3), Hyperpigmentation (n=2), telangiectasia (n=2) and atrophy of the skin (n=1). Two patients experienced wound breakdown 12 and 14 months after completion of therapy. No cases of cartilage necrosis was seen.

CONCLUSION

HDRBT using customized mold applicators offer an alternative option to Mohs surgery in elderly patients with early stage non-melanoma skin cancers with excellent local control and cosmetic outcome.

CLINICAL RELEVANCE/APPLICATION

High dose rate brachytherapy using customized superficial mold applicators offer an alternative strategy to Mohs surgical resection for elderly patients presenting with early stage basal and squamous cell carcinoma of the skin in the head and neck region.