

Stereotactic Body Radiotherapy for Periocular Non-Melanoma Skin Cancers

Corresponding author: Sule Karaman

1. Department of Radiation Oncology, Istanbul University, Istanbul Medical Faculty 2. Radiation Oncology, Istanbul University, Istanbul School of Medicine 3. Radiation Oncology, Liv Hospital 4. Radiation Physics, Istanbul University/Oncology Institute 5. Radiation Oncology, Istanbul University/Oncology Institute 6. Radiation Oncology, Istanbul University/Oncology Institute 7. Department of Radiation Oncology, Istanbul University, Department of Radiation Oncology, Istanbul University

Categories: Radiation Oncology

Keywords: sbrt, stereotactic body radiotherapy, skin cancer

How to cite this abstract

Karaman S, Dagoglu N, Fayda M, et al. (November 02, 2017) Stereotactic Body Radiotherapy for Periocular Non-Melanoma Skin Cancers. *Cureus* 9(11): a199

Abstract

Objectives: Skin cancers commonly affect the periocular region. While surgical resection is the standard of care, it may not be feasible because of the proximity to the eye. Radiotherapy is another option for organ sparing in definitive setting or in cases of surgical margin positivity in adjuvant setting. SBRT has been successfully used in the treatment of head and neck cancers due to its avoidance of normal structures. In this study, we aim to report our experience for SBRT in treatment of these cases.

Methods: Between January 2010 and January 2014, 12 patients with 13 lesions were treated with SBRT. The Cyberknife™ Robotic SBRT system was used in all cases. The patients were placed supine on the treatment couch and immobilized with a custom-fitted thermoplastic mask and bolus. Dose of 25-32.5Gy in 5fr were used. Patients were followed with a CT or MRI one month after treatment and periodically thereafter at the discretion of the oncologist.

Results: 5 females and 7 males with 13 lesions were included in this series. Median followup was 40 months (12-66). The median age was 73 years (28-83). The primary histology was bcc for 6, yeh ca for 7 lesions. One patient had 2 lesions. The median dose was 25Gy (25-32.5) in five fractions. The mean prescription isodose was 77%, covering at least 95% of the target volume. There were 3 local failures after SBRT with a crude local control rate of 77%. All three patients were salvaged with surgery. Two (2) patients died because of comorbidities. Two patients developed grade 2 telangiectasia and one patient had partial hair loss at the eyebrow, 2 patients had grade 2 cataract and 3 patients had grade 1 minor corneal ulceration or keratitis.

Conclusions: Using SBRT, we obtained clinical long-term complete remission, preserving visual function. SBRT can be a safe and effective technique to achieve local control and can be proposed for elderly patients not suitable for a surgical approach or for patients who refuse surgery.

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Abstract

Published 11/02/2017

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