

THE EFFICACY OF RADIATION THERAPY FOR KELOID AND HYPERTROPHIC SCAR: THE EXPERIENCE OF NINE CASES

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Purpose : To report the experience of postoperative radiation therapy (RT) for keloid at a teaching hospital.

Material and Methods : We recruited patients with keloid or hypertrophic scar lesions who received excision and postoperative RT from 1999 to 2003 at a teaching hospital. We use 6 MeV electron beam covered with 0.5-1 cm Superflap as bolus to enhance skin dose, and the electron beam margin was designed as 0.5 to 1 cm from re-operative suture line area. All of them were treated with 15 Gy of RT in five fractions in consecutive days, except one who had problems in scheduling the last treatment and received 12 Gy in four fractions. We summarized information on their outcomes and evaluated the possible prognostic factors.

Results : A total of nine patients were observed during the study period, including one man and eight women. Five of them were satisfied with their outcomes, two had fair outcome, and two felt disappointed. Of the two disappointed patients, one had a gross keloid, and the other had an elapsed time of 17 days between excision and radiation. One of the patients with satisfactory outcome, however, had an elapsed time of 6 days. All the other six patients who had satisfactory or fair outcomes started RT within 2 days after surgery. Eight patients received 15 Gy in five fractions, and one received 12 Gy in four fractions. No second malignancy was observed during the study period. Among all variables evaluated, ugly as the initial symptom was the only significant factor associated with satisfaction, but none was associated with the outcome.

Conclusion : The dose-fractions between 12 and 15 Gy in four or five fractions are feasible in postoperative RT for keloid or hypertrophic scar. Starting the RT within 2 to 3 days should be suggested after excision. Unsatisfactory response is still possible under this timing and dose-fractions, especially for gross lesions.

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