ABSTRACT BOOK ABSTRACTS



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WOUND HEALING

LOW RATE OF KELOID RECURRENCES FOLLOWING TREATMENT OF KELOIDECTOMY SITES WITH A BIOLOGICALLY EFFECTIVE DOSE 30 OF SUPERFICIAL RADIATION

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BACKGROUND: Recurrences of keloids at sites of previously excised keloids is a wellrecognized common occurrence following keloidectomy, and based on the published literature, has been reported to occur approximately in 71% of cases. Superficial radiation reduces wound fibroblast proliferation and enhances apoptosis. In this multi-center, case series report the recurrence rate of keloids post keloidectomy with peri-operative treatment with a biological effective dose 30 of superficial radiation was determined.

OBSERVATION: 297 keloids were surgically completely excised. Starting on postoperative day 1 the suture closure line, with a 5 mm margin, received a total biologically effective dose 30 (BED 30), either 70 kV or 100 kV, of superficial radiation. One of the 3 following superficial radiation BED 30 fractionation protocols was employed post keloidectomy: one fraction of 13 Gy on post-operative day 1; or 2 fractions of 8 Gy on postoperative days 1 and 2; or, in the majority of cases, 3 fractions of 6 Gy on post-operative days 1, 2 and 3.

Radiation dermatitis was not reported. The most common adverse local skin reaction was transient (3-6 months) hyperpigmentation, occurring in Fitzpatrick Skin Type V-VI individuals. Hypo-pigmentation was noted to occur rarely. The follow-up period ranged from 1 month to 3 years, with the majority having been followed for more than 1 year. There were 9 clinical keloid recurrences in the 297 keloidectomy sites for a recurrence rate of 3.0%.

KEY MESSAGE: The observed 3.0% rate of keloid recurrence following surgical keloidectomy and treatment of the excision site with superficial radiation therapy (BED 30) is markedly lower than that reported in the literature following keloid excision alone.





