

Proton therapy for prostate cancer: the initial Loma Linda University experience.

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Abstract:

PURPOSE: We analyzed results of conformal proton radiation therapy for localized prostate cancer, with emphasis on biochemical freedom from relapse.

METHODS AND MATERIALS: Analyses were performed for 1255 patients treated between October 1991 and December 1997. Outcomes were measured on primarily in terms of biochemical relapse and toxicity.

RESULTS: The overall biochemical disease-free survival rate was 73%, and was 90% in patients with initial PSA ≤ 4.0 ; it was 87% in patients with posttreatment PSA nadirs ≤ 0.50 . Rates dropped with rises in initial and nadir PSA values. Long-term survival outcomes were comparable with those reported for other modalities intended for cure.

CONCLUSIONS: Conformal proton radiation therapy at the reported dose levels yielded disease-free survival rates comparable with other forms of local therapy, and with minimal morbidity. Dose-escalation strategies are being implemented to further improve long-term results.