

## ADJUVANT RADIOTHERAPY: NO SURVIVAL BENEFIT?

Treating prostate cancer patients with adjuvant radiotherapy after radical prostatectomy makes no difference to long-term rates of cancer-specific or overall survival. This is the conclusion of a matched case-control study performed jointly by researchers in the US and Canada, and led by Christopher Porter (Virginia Mason Medical Center, Seattle, WA). "Further randomized long-term studies are necessary to confirm these results," cautions Porter.

The debate on whether post-prostatectomy radiotherapy is of value in men with localized prostate cancer has been ongoing for some time. Evidence for benefit is hazy when end points other than local recurrence and biochemical failure are taken into account. "Salvage radiotherapy administered within 2 years of biochemical failure was recently shown to improve cause-specific survival in patients with a PSA doubling time of less than 6 months," explains Porter, noting that no such data have been available for adjuvant radiotherapy.

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In an attempt to provide more-reliable information on the role of adjuvant radiotherapy, the investigators looked at cause-specific and overall survival, widely accepted as the ultimate end points in assessments of cancer treatment efficacy. The study group included more than 750 prostate cancer patients whose gland had been surgically removed. The subgroup of 118 men who had received adjuvant radiotherapy were matched with an equal number of controls from the group that had not received radiotherapy. "Exact matches were made for pT stage, radical prostatectomy Gleason sum, surgical margin status, age ( $\pm 10$  years), year of surgery ( $\pm 10$  years) and delivery of hormonal therapy," explains Porter.

Patients were followed for an average of just over 11 years. Survival at 10 years did not differ significantly between the group treated with adjuvant radiotherapy and matched controls (40% and 45%, respectively). A similar observation was made for 20-year survival (76% and 81%, respectively). "We demonstrated that there was no statistically significant variation in the overall or cause-specific survival between the groups after matching," adds Porter.

The finding that not all patients who receive radiotherapy after surgery benefit from the additional treatment contradicts interim data from three ongoing randomized controlled trials. A German phase III study, for example, has shown biochemical progression-free survival to be superior in a group of 114 men who received adjuvant radiotherapy. Porter and colleagues recommend caution interpreting the results of their matched case-control study, while awaiting emergence of overall survival data from the ongoing trials.

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**Original articles** Porter, C. R. *et al.* Adjuvant radiotherapy after radical prostatectomy shows no ability to improve rates of overall and cancer-specific survival in a matched case-control study. *BJU Int.* **103**, 597-602 (2009).

Wiegel, T. *et al.* Phase III postoperative adjuvant radiotherapy after radical prostatectomy compared with radical prostatectomy alone in pT3 prostate cancer with postoperative undetectable prostate-specific antigen: ARO 96-02/AUO AP 09/95. *J. Clin. Oncol.* doi:10.1200/JCO.2008.18.9563