

PROSTATE CANCER

Adjuvant radiotherapy can increase the risk of pelvic second primary malignancy

Radiation after radical prostatectomy slightly increases the likelihood of a patient developing a late pelvic second primary cancer (SPC), report May Abdel-Wahab and colleagues from The University of Miami. However, “the

benefits of postoperative radiation are greater in magnitude than the rare risk of radiation-induced second malignancy. The main challenges for these patients are from SPCs unrelated to radiation” notes Abdel-Wahab.

The researchers extracted data for 228,235 men diagnosed with primary prostate cancer between 1988 and 2002 from the Surveillance, Epidemiology and End Results (SEER) database. Just over 5,000 had been treated with prostatectomy plus adjuvant radiotherapy, and approximately 80,000 with prostatectomy alone.

The overall incidence of SPC was 8.4%. Tumor grade was worse in patients who had received adjuvant radiotherapy. This treatment significantly increased the risk of SPCs arising in the irradiated pelvic

area more than 5 years after treatment ($P < 0.001$). White non-Hispanic men older than 65 years were most likely to develop late pelvic tumors.

The researchers conclude that adjuvant radiotherapy is associated with an increase in the incidence of late pelvic SPCs of 374 cases per 100,000. The fact that more than 80% of tumors arose outside the pelvic area indicates, however, that SPCs are a problem in prostate cancer patients regardless of how their primary disease was managed.

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Original article Abdel-Wahab, M. *et al.* Second primary cancer risk of radiation therapy after radical prostatectomy for prostate cancer: an analysis of SEER data. *Urology* 74, 866-872 (2009).



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