

Use of Radiotherapy after Prostate Cancer Surgery Declining, Despite Evidence of Benefit

Large Study Finds Fewer than One in Ten Prostate Cancer Patients with Adverse Pathologic Features after Surgery Receive Radiation Therapy

April 20, 2015--Despite strong evidence and guidelines supporting its use, post-surgical radiation therapy for prostate cancer patients at risk of recurrence is declining in the United States. The study, [published online in the journal *European Urology*](#), finds fewer than 10 percent of patients at risk of recurrence received postoperative radiotherapy within six months of surgery in the U.S.

Although radical prostatectomy (RP) is a common curative treatment for localized prostate cancer, about 30% of patients will develop biochemical recurrence after surgery, meaning their prostate-specific antigen (PSA) level will again rise. For some patients with more aggressive cancers, as many as 60% to 70% can experience biochemical recurrence (also called biochemical failure).

Three large randomized prospective clinical trials, two done in Europe and one in the United States, have demonstrated that postoperative radiotherapy (RT) in patients with adverse pathological features reduces risk of PSA recurrence, may prevent the need for androgen deprivation therapy (ADT), and may reduce metastasis and improve survival.

In the U.S., the American Society for Radiation Oncology (ASTRO) and American Urological Association (AUA) recommend offering adjuvant RT to patients with adverse pathologic features found at the time of surgery.

To investigate how available evidences were being implemented, researchers from the American Cancer Society and Massachusetts General Hospital led by Helmhesh Sineshaw, MD, MPH of the American Cancer Society analyzed data from the National Cancer Data Base (NCDB), a national hospital-based cancer registry database that captures data on approximately 70% of newly diagnosed cancer cases in the United States. The study included 97,270 patients between the ages of 18 and 79 diagnosed between 2005 and 2011.

The data showed that receipt of RT after RP decreased steadily between 2005 and 2011, from 9.1% to 7.3%. And while RT use was higher in younger patients and in those at highest risk for recurrence, overall rates of utilization remain low, with fewer than 20% of patients in subgroups most likely to benefit receiving RT.

The authors say declining utilization of RT could be due to multiple factors including patient preference, physician and referral bias, concern for toxicity, lack of a consistent survival benefit seen in the updated randomized trials, or a growing preference for "salvage radiation," done if a patient's PSA rises in the weeks and months after surgery.

Nonetheless, the authors say additional effort is needed to ensure patients are counseled regarding their options and available evidence "The declining trend in the utilization of postoperative RT calls for the attention of clinicians to make appropriate referrals to radiation oncologists or clinical oncologists when appropriate," they write.

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