Medical Xpress

Pelvic lymph node radiation provides significant benefit for prostate cancer patients

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The first report of a large international clinical trial shows that, for men who show signs of prostate cancer after surgical removal of their prostates, extending radiation therapy to the pelvic lymph nodes combined with adding short-term hormone therapy to standard treatment can extend the amount of time before their cancer spreads. The findings, presented today at the 60th Annual Meeting of the American Society for Radiation Oncology (ASTRO), were so encouraging —exceeding rigorous threshold criteria—that the results were released by the research team ahead of schedule.

Men with prostate cancer who are initially treated with prostatectomy—surgical removal of the prostate gland—often face signs of recurrence, usually signaled by a rise in the level of prostate specific antigen (PSA) in the blood. Radiation therapy to the region of the prior prostate surgery (surgical bed) is standard but only effective at keeping PSA low longer than five or more years in 60 to 70 percent of patients, said the study's lead author, Alan Pollack, MD, Ph.D., Chair of radiation oncology at the University of Miami and deputy director of the Sylvester Comprehensive Cancer Center.

While a rise in PSA after prostatectomy signals that the cancer is still present, it does not indicate where the cancer is located. The NRG Oncology/RTOG 0534 SPORRT clinical trial is the first randomized trial to show that radiation therapy to treat the pelvic lymph nodes in

addition to standard prostate bed results in significant incremental gains for these patients.

"We looked specifically at men with prostate cancer who began to show signs that the cancer was not completely eradicated after prostatectomy," said Dr. Pollack. "Adding hormone therapy and pelvic lymph node treatment substantively increased the proportion of patients who remained free from disease progression, to the point that we could report the data after an early interim analysis. The degree of the effectiveness of the combination is surprising, but makes sense when you consider other more contemporary evidence using newer PET scanning methods showing that pelvic lymph node recurrences are more common than previously appreciated."

The SPPORT trial enrolled 1,792 men at centers in the U.S., Canada and Israel from 2008 to 2015. Eligible patients had persistently detectable or rising PSA levels and evidence that some cancer cells were left behind after prostatectomy in the prostate bed, pelvic lymph nodes or elsewhere in the body after prostatectomy. The median patient age was 64 years (range 39-84), most patients (87 percent) were Caucasian, and the men had generally favorable performance status.

Patients in the SPPORT trial were randomly placed into three treatment groups: prostate bed radiation therapy (PBRT) alone, PBRT plus short-term androgen deprivation (hormone) therapy (STAD), and PBRT plus pelvic lymph node radiotherapy (PLNRT) plus STAD. Hormone therapy consisted of four-to-six months of androgen deprivation to reduce levels of testosterone, a driver of prostate cancer.

The trial was designed to assess freedom from disease progression at five years following treatment. Findings from a scheduled interim analysis when 1,191 patients had been followed for five years triggered the early release of the findings, explained Dr. Pollack. "The level of

significance reached at this point was considerable, making it unlikely that the results will change substantively with longer follow-up, although outcomes such as the rates of distant metastasis and survival require much more patient follow-up, " he said. "Releasing the data at this juncture is important for physicians treating patients with a rising PSA following prostatectomy. The strategy of combining prostate bed and pelvic lymph node radiation therapy with short-term hormone therapy should be much more strongly considered in routine clinical practice than it is currently."

At five years following treatment, freedom-from-progression (FFP) rates in the interim analysis group were 71.7 percent for PBRT alone, 82.7 percent for PBRT+ADT and 89.1 percent for PLNRT+PBRT+ADT. The FFP rate was highest for the arm combining all three treatments (p