Short-term hormone therapy and intermediate dose radiation increases survivial for early stage prostate cancer

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Short-term hormone therapy given prior to and during intermediate dose radiation treatment for men with early stage prostate cancer increases their chance of living longer, compared to those who receive the same radiation alone, according to a Radiation Therapy Oncology Group (RTOG) study, the largest randomized trial of its kind, presented November 2, 2009, at the American Society for Radiation Oncology (ASTRO) annual meeting. The RTOG trial noted that this benefit appeared to be greatest for men currently defined as at medium-risk for disease failure.

The phase III study is one of the largest clinical trials of prostate cancer therapy ever completed, with 2,000 low- and intermediate-risk patients enrolled in the trial from October 1994 to April 2001. This trial was conducted by the RTOG and followed men with early-stage prostate cancer in most cases for more than nine years. This time period is sufficient to show improved survival benefits of short-term hormone therapy added to what was then the standard radiation treatment for prostate cancer, which involved slightly lower doses of radiation than are currently used today with newer techniques, such as intensity modulated radiation therapy (IMRT).

"This landmark RTOG study provides strong scientific evidence that shows us when to deliver hormone therapy with radiation in men with localized prostate cancer. Prior to this trial, it was unclear whether or not

combining hormone therapy with radiation for medium-risk prostate cancer patients would increase survival," said Christopher U. Jones, M.D., an author of the study and a radiation oncologist at Radiological Associates of Sacramento in Sacramento, Calif. "It remains uncertain whether the addition of hormone therapy to the higher radiation dose and new technology treatments being employed today would provide the same or greater benefit to that documented in this study. It is possible that it could."

According to Walter J. Curran, Jr., M.D., the RTOG Group Chair, and the Executive Director of the Emory Winship Cancer Institute and Associate Vice President for Cancer, Woodruff Health Sciences Center, "RTOG recently opened a new trial examining the role of hormone therapy combined with modern radiotherapy techniques for men with intermediate stage prostate cancer. When completed, the results of our new trial, RTOG 0815, will provide a complement to the results of our current landmark trial."

Androgen deprivation therapy is hormone therapy used to treat prostate cancer by stopping or lowering the level of male hormones, or androgens, thereby removing the strongest growth factor for prostate cancer cells.

In the study, a total of 1,979 eligible men who had cancer confined to the prostate and a PSA less than or equal to 20 were randomized to receive total androgen deprivation therapy for two months prior to and two months during radiation treatment, or to receive only radiation therapy.

Findings show that short-term hormone therapy given to early-stage prostate cancer patients prior to and during radiation treatment significantly increases their chance of living longer (51 percent), compared to those who receive radiation alone (46 percent). Nearly all

of the survival benefit was in the intermediate-risk group. Secondary endpoints of disease-free survival, freedom from biochemical failure, and positive two year re-biopsy rates were also better in the group who received short-term hormone therapy and radiation treatment.

Source: American Roentgen Ray Society