

IMRT better for sparing bladder when treating prostate cancer

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When treating early-stage prostate cancer, intensity modulated radiation therapy (IMRT) spares the bladder significantly more from direct radiation when compared to 3-D conformal proton therapy (3D-CPT), but the amount of rectal sparing is similar with both treatments, according to a study released in the October issue of the *International Journal for Radiation Oncology*Biophysics*, the official journal of the American Society for Therapeutic Radiology and Oncology.

“This study was important because it reassures a patient with prostate cancer that the methods that are available at his local hospital may, in many cases, be as good as those that are currently only available in a limited number of centers,” said Anthony L. Zietman, M.D., a professor of radiation oncology at Harvard Medical School and a radiation oncologist at Massachusetts General Hospital.

According to the American Cancer Society, approximately 218,890 new cases of prostate cancer will be diagnosed in the United States in 2007. One in six men will get prostate cancer in his lifetime; however, only one in 35 men will die from the disease due in part to the wide variety of treatment options available.

The Massachusetts General Hospital Department of Radiation Oncology and Harvard Medical School, both in Boston, jointly conducted the study to determine the comparative dosimetric benefits and drawbacks of IMRT versus 3D-CPT as treatments for patients with prostate cancer and to determine whether specific cases should be assigned to one treatment

method over the other. The study sought to identify the sites in which proton therapy offers an advantage over IMRT; IMRT is a readily available form of treatment, but proton therapy is only available at five treatment centers in the United States.

Ten patients with clinically-localized early-stage prostate cancer were randomly selected for the study and treated with both IMRT and 3D-CPT. The percentage of bladder volumes receiving more than 70 Gy/CGE was reduced by an average of 34 percent when using IMRT versus 3D-CPT, but the rectal volumes were found to be equivalent.

Source: American Society for Therapeutic Radiology and Oncology

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