

Chemo-radiation before prostate removal may prevent cancer recurrence

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Researchers in the Oregon Health & Science University Knight Cancer Institute and the Portland Veterans Affairs Medical Center have found a combination of radiation therapy and chemotherapy given before prostate removal is safe and may have the potential to reduce cancer recurrence and improve patient survival.

Their findings were presented this week at the 51st annual meeting of the American Society of Therapeutic Radiology and Oncology in Chicago.

"In men with aggressive prostate cancer, standard therapies such as radiation or surgery often fail to eliminate the cancer completely at the site of treatment. When these cancers recur, they are often fatal," said Mark Garzotto, M.D., principal investigator and Associate Professor of Urology and Radiation Medicine in the OHSU Knight Cancer Institute; and Chief of Urologic Oncology in the Portland Veterans Affairs Medical Center.

Previous clinical trials examining the effect of either hormonal therapy or chemotherapy prior to surgery have shown little if any benefit over prostate removal alone. "Novel approaches are needed if we are to make advances in this disease," added Dr. Garzotto.

The use of multimodality therapy — combined radiation, chemotherapy and surgery — has resulted in improved outcomes in a number of cancers, but has not yet been studied in prostate cancer.

This study looked at whether [radiation therapy](#) and chemotherapy (docetaxel) administered before surgery is possible, safe, and, ultimately, capable of preventing cancer recurrences. To answer these questions, Garzotto and colleagues developed a treatment regimen in which radiation and docetaxel were administered together before prostatectomy.

Twelve eligible participants were enrolled in the study between April 2006 and March 2008. The men were given intensity-modulated radiation therapy and increasing doses of docetaxel for five consecutive weeks, which was followed by surgical removal of the prostate gland.

The participants tolerated the treatment well and were able to undergo surgery without any major complications, which was a potential concern in this trial. Specifically there were no rectal or ureteral injuries or blood clots in the legs. Examination of the tumor tissue after surgery showed the cancer margins, evidence of complete removal of all of the cancer, to be clean in 75 percent of patients, which is higher than was expected. Also, the PSA, or prostate-specific antigen levels, a predictor of prostate cancer recurrence, were undetectable after treatment in all patients.

"Our study is the first-ever clinical trial in [prostate cancer](#) to combine radiation, chemotherapy and surgery given as a combination treatment before prostate surgery to potentially provide higher cure rates than traditional approaches with fewer side effects," said Arthur Hung, M.D., co-investigator and Assistant Professor of Radiation Medicine in the OHSU Knight Cancer Institute.

The researchers concluded this chemo-radiation combination is feasible and safe and potentially may reduce [cancer](#) recurrence rates in this high-risk population. Further, they say the development of this approach now opens the door to the study other drugs in combination with radiation.

Source: Oregon Health & Science University ([news](#) : [web](#))

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