Just 4 months of hormone therapy can delay prostate cancer growth by up to 8 years

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Early, short course of hormonal therapy may allow patients to live longer

Alexandria, VA—Researchers report that just four months of hormonal therapy before and with standard external beam radiation therapy slowed cancer growth by as much as eight years—especially the development of bone metastases—and increased survival in older men with potentially aggressive prostate cancer. This "neoadjuvant" hormonal therapy may allow men most at risk of developing bone metastases avoid long-term hormonal therapy later on. Furthermore, the short-term hormonal therapy did not increase the risk of cardiovascular disease—a potential side effect of long-term hormonal therapy. The study is being published online January 2 in the Journal of Clinical Oncology (JCO).

Hormonal therapy—called androgen deprivation therapy (ADT)—lowers levels of cancer-fueling testosterone in the blood. It is an important treatment option for men with prostate cancer that continues to progress despite initial treatment with surgery, radiation therapy, or chemotherapy, but has been associated with side effects such as bone loss, osteoporosis, depression and an increase in cardiovascular risk factors (including blood lipids, abdominal obesity and a syndrome associated with diabetes).

"This study demonstrates that the benefits of short-term hormonal therapy for men receiving radiation therapy for prostate cancer far outweigh the risks," said lead author Mack Roach III, MD, professor and chair of radiation oncology and professor of urology at the University of California, San Francisco. "While four months of hormonal therapy isn't enough to cause significant side effects, we found that it can delay the development of bone metastasis by as many as eight years, which is very significant."

Starting in 1987, Radiation Therapy Oncology Group researchers studied 224 men with high-risk prostate cancer who received ADT (goserelin and flutamide) before and concurrent with external beam radiation therapy, and 232 men with the disease who received radiation therapy alone. After 13 years of follow up, they found better 10-year disease-specific death rates (the rate of death from prostate cancer) for men who received ADT plus radiation (23 percent versus 36 percent of the radiation-only group), disease metastasis rates (35 percent versus 47 percent), disease-free survival (the percentage of men free of cancer at 10 years; 11 percent versus 3 percent) and biochemical failure rates (a rise in PSA levels; 65 percent versus 80 percent).

Among men who received neoadjuvant hormonal therapy, there was up to an eight-year delay in the time it took 40 percent of patients to develop bone metastases compared with men receiving radiation alone. Men who develop bone metastases often require long-term hormonal therapy, which can increase their risk for side effects. "So by taking a little bit of hormonal therapy early, patients may avoid having to take a lot of it later," added Dr. Roach.

Fatal cardiac events occurred in 12 percent of patients in the ADT group compared with 9 percent of the radiation-only group—a difference that was not statistically significant.

Source: American Society of Clinical Oncology