

Comparing the Effects of Different Prostate Cancer Treatments on Quality of Life and Cancer Recurrence -- NC ProCESS

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What was the research about?

Prostate cancer is the most common type of cancer in men. More than 174,000 men in the United States are diagnosed with it each year. Men with prostate cancer have many treatment options. But the options have different benefits, risks, and side effects. In this study, the research team wanted to learn more about the effects of five treatments:

- Surgery to remove the prostate
- External beam radiation therapy, or EBRT, which kills cancer cells with beams of radiation
- Stereotactic body radiation therapy, or SBRT, which kills cancer cells with strong, focused doses of radiation, limiting damage to healthy tissue
- Brachytherapy, which places radiation pellets in and near the prostate to kill cancer cells
- Active surveillance, where the doctor and patient check every few months to make sure the cancer isn't getting worse

What were the results?

Compared with patients who chose active surveillance, patients who chose

- Surgery had greater increases in sexual problems and leaking urine at 3, 12, 24, 36, and 48 months.

- EBRT or brachytherapy had greater increases in sexual problems, trouble urinating, and bowel problems at three months but not at other times.
- SBRT had less anxiety about prostate cancer at 24 months but not at other times.

Across treatment groups, patients didn't differ in regret about their treatment decision.

Compared with patients who had surgery, patients who chose SBRT or EBRT had a 51 percent lower chance of prostate cancer coming back.

Compared with patients who chose other treatments, patients who chose active surveillance had, on average per year, more

- Doctor visits to check on their prostate cancer
- Total doctor visits
- Specialist visits

Who was in the study?

The study included 1,413 patients with newly diagnosed prostate cancer in North Carolina between 2011 and 2013. Of these, 71 percent were white, 25 percent were black, and 3 percent were another race. The average age was 64. More than 95 percent of patients had early stage prostate cancer.

What did the research team do?

The research team enrolled patients from the North Carolina Central Cancer Registry. Registries store data about people with a specific health problem. The team surveyed patients by phone before treatment began and again 3, 12, 24, 36, and 48 months later. The surveys asked about patient quality of life, regret about their treatment decision, and anxiety about cancer. Five years after treatment, the team looked at patients' health records to see if the cancer had come back. They also looked at numbers of doctor visits.

Staff from patient and clinician organizations helped design the study and create study materials.

What were the limits of the study?

Patients chose their treatment, which may have affected their survey responses. The research team didn't have much information on long-term use of active surveillance, as most patients went on to choose another treatment.

Future research could look at which patients are most likely to benefit from long-term active surveillance.

How can people use the results?

Patients and their doctors can use these results when considering treatment for prostate cancer.

To learn more about this project, visit www.pcori.org/Chen008.