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Mayo researchers: Dramatic outcomes in prostate cancer study

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Two Mayo Clinic patients whose prostate cancer had been considered inoperable are now cancer free thanks in part to an experimental drug therapy that was used in combination with standardized hormone treatment and radiation therapy. The men were participating in a clinical trial of an immunotherapeutic agent called MDX-010 or ipilimumab. In these two cases, physicians say the approach initiated the death of a majority of cancer cells and caused the tumors to shrink dramatically, allowing surgery. In both cases, the aggressive tumors had grown well beyond the prostate into the abdominal areas.

"The goal of the study was to see if we could modestly improve upon current treatments for advanced prostate cancer," says Eugene Kwon, M.D., Mayo Clinic urologist and leader of the clinical trial. "The candidates for this study were people who didn't have a lot of other options. However, we were startled to see responses that far exceeded any of our expectations."

The patients first received a type of hormone therapy called androgen ablation, which removes testosterone and usually causes some initial reduction in tumor size. Researchers then introduced a single dose of ipilimumab, an antibody, which builds on the anti-tumor action of the hormone and causes a much larger immune response, resulting in massive death of the tumor cells. Both men experienced consistent drops in their prostate specific antigen (PSA) counts over the following weeks until both were deemed eligible for surgery. Then, during surgery, came a greater surprise.

"The tumors had shrunk dramatically," says Michael Blute, M.D., Mayo urologist, co-investigator and surgeon, who operated on both men. "I had never seen anything like this before. I had a hard time finding the cancer. At one point the pathologist (who was working during surgery) asked if we were sending him samples from the same patient."

One patient underwent radiation therapy after surgery; both have resumed their regular lives. Further research is being planned to understand more about the mechanisms of the antibody and how best to use the approach in practice. The researchers, however, note the significance of their findings.

"This is one of the holy grails of prostate cancer research," says Dr. Kwon. "We've been looking for this for years."

Source: Mayo Clinic (news : web)

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