Success Rates for Prostate Cancer Depend on Experience of Surgeon

Surgeons performing operations to remove patients’ prostate glands—the primary treatment for prostate cancer—go through a steep learning curve, according to a study published online July 24 in the Journal of the National Cancer Institute. As the surgeons gain more experience performing the operation, called a radical prostatectomy, the chance that patients’ prostate cancer will reoccur goes down.

The idea that more experienced surgeons perform more successful surgeries is a widely held belief. But there have been few data to support this idea, and it has not been previously shown whether a surgeon’s experience makes a large or small difference on their patients’ outcome.

Andrew Vickers, Ph.D., of Memorial Sloan-Kettering Cancer Center in New York and colleagues analyzed data from 72 surgeons at four institutions and 7,765 of their prostate cancer patients treated with radical prostatectomies between 1987 and 2003. They measured surgeons’ experience by the number of times they had performed the procedure before each operation.

More surgical experience was associated with a greater likelihood that the patient’s cancer would not return after their operation. The learning curve for this procedure was very steep—there was dramatic improvement in patient outcomes as surgeons’ experience increased up to 250 operations, after which increasing experience had little influence on cancer recurrence. Patients treated by inexperienced surgeons (for example, those with 10 prior operations) were nearly 70% more likely to have evidence of recurrence of their prostate cancer within five years than those whose surgeons had performed 250 operations (17.9% vs. 10.7%).

“Our findings also have implications for education in surgical oncology. Although the successful practice of surgery necessarily presumes a lifetime of learning, the large number of cases required before the learning curve plateaus suggests the need to expand opportunities for training in surgical technique for surgeons in the early years after residency training,” the authors write.

Contact:

Esther Napolitano, department of public affairs, Memorial Sloan-Kettering Cancer Center, (646) 227-3139, napolite@mskcc.org

Citations:


Note to Reporters:

We are starting up an e-mail list to alert reporters when papers are available on the EurekAlert site. If you would be interested on being on this list, please let us know at jncimedia@oxfordjournals.org. The content will continue to be available through EurekAlert’s e-mail system and our EurekAlert page.

The Journal of the National Cancer Institute is published by Oxford University Press and is not affiliated with the National Cancer Institute. Attribution to the Journal of the National Cancer Institute is requested in all news coverage. Visit the Journal online at http://jnci.oxfordjournals.org/.