Breakthrough Technology: A Less Invasive Surgery for Prostate Cancer

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One man in six will get prostate cancer in his lifetime. The widespread use of prostate-specific antigen (PSA) and digital rectal exam (DRE) for the early detection of prostate cancer means that many cases are now being diagnosed at early and potentially curable stages.

Doctors generally recommend that men consider getting an annual DRE and the PSA test beginning at age 50. Earlier screening may be indicated for African-Americans and those with a family history of prostate cancer, who are at a higher risk for the disease.

Found only in men, the prostate is a doughnut-shaped gland that surrounds the urethra, the tube that goes from the bladder out of the body. Treatment of prostate cancer takes many forms, including observation (or “watchful waiting”), surgery, radiation therapy, and hormonal therapy. Currently, “open” radical prostatectomy is one of the standard surgical treatments for prostate cancer. This surgery requires an eight-inch incision in the patient’s lower abdomen to remove the prostate.

Now, men have another treatment option to consider: minimally invasive laparoscopic radical prostatectomy (LRP). With LRP, the surgeon is able to operate through five small holes about the size of a pencil. This technique results in less pain, less bleeding, and a shorter recovery period. LRP is performed under general anesthesia and takes from three to five hours. During the laparoscopic procedure, a small camera, called an endoscope, is inserted into the patient’s abdomen, allowing the surgeon to view the prostate on a video monitor. At Bryn Mawr Hospital, new robotic technology helps to position the endoscope. The surgeon directs the robotic arm with simple voice commands, providing a better view of the operating site, including the nerves on the prostate that control continence and potency.

Recovery time after LRP surgery is generally shorter and easier. The patient’s urinary catheter is removed less than a week after surgery, earlier than with traditional surgery. Patients experience less pain and less need for blood transfusions than with traditional surgery. Recovery time to normal activity averages two to four weeks for laparoscopic patients and six to eight weeks for patients who have had the open procedure. Recovery of continence and potency parallels that seen with open surgery. Some patients may not be good candidates for LRP, such as those who have had prior prostate cancer treatment, including hormonal therapy and radiation therapy, and obese patients.

For many men who have surgery as part of their treatment, however, LRP is a less invasive, less painful method of removing the prostate.

Dr. McGinnis studied LRP at the Institute Mutualiste Montsouris in Paris, France. He is among the first American urologists to implement the procedure in this country. Bryn Mawr Hospital is one of about 50 hospitals and medical centers across the country to offer this minimally invasive technique for prostate cancer. Bryn Mawr Hospital has also been on the leading edge in adopting minimally invasive procedures to treat kidney cancer and other conditions.

The AESOP robotic arm is the first surgical robot approved by the U.S. Food and Drug Administration.