Robotic-assisted surgery debuts at Liberty Hospital

Robotic-assisted surgery. It sounds like science fiction. But at Liberty Hospital, it’s a state-of-the-art reality, especially for men recently diagnosed with prostate cancer.

Justin Albani, MD, a Liberty Hospital urologist, is the only physician in the Northland who has completed a year-long fellowship specializing in robotic-assisted surgery. Dr. Albani completed his residency in urology at the Cleveland Clinic and a robotics and laparoscopy fellowship at the University of Pennsylvania, Philadelphia, Penn.

While there, he learned how to use robotics to perform one of the most complicated, yet common surgeries, done in this country—a radical prostatectomy, or removal of the prostate. According to the American Cancer Society, a prostatectomy is usually done to treat prostate cancer, which was diagnosed in more than 200,000 men in 2005.

“One of the risks of traditional prostate surgery is that it may damage sensitive nerve endings in the area, affecting the patient’s sexual function,” Dr. Albani said. “We are finding that when we use the robot to assist us with this surgery, we can greatly reduce this risk and may even have better patient results.”

The robot doesn’t actually perform the operation. Instead, it serves as a sophisticated tool to help the doctor be more precise and effective. During the operation, the surgeon sits at a console and views a three-dimensional image of the patient’s body. By greatly magnifying the area, the doctor is able to perform delicate movements and reduce possible damage to the sensitive nerves located near the prostate.

The robot itself consists of instrument arms that the surgeon moves during the operation. Each arm has a specific job to do, such as clamping, suturing or tissue manipulation. The surgeon controls the robot, positioning the instruments even more accurately than could be done with the human hand.

“The instruments are designed to have the same range of motion as the hand,” Dr. Albani said. “The advantage is that the robotic arms give you more control than you have with conventional laparoscopic or traditional open surgery.”

The result is a better surgery for the patient.

“When we use the robot to perform this surgery, we are able to be very exact with our movements,” Dr. Albani said. “This means we can greatly reduce the patient’s blood loss, shorten their hospitalization and cut down on the amount of time it takes to recover.” Patients whose surgeons use the robot to assist with removing the prostate often return home the next day.

“Robotic-assisted surgery allows Liberty Hospital to offer its patients a higher level of care,” Dr. Albani said. “We believe these patients will do much better overall. They spend less time in the hospital and return to normal activities more quickly.”

Robotic-assisted surgery has been approved by the Food and Drug Administration for use in adults and children in laparoscopic urologic, gynecologic and general surgical procedures, as well as mitral valve repair. (Robotic Surgeries have been approved by the FDA.) At Liberty Hospital, Gerald Park, MD and Thomas Herrick, MD are also currently going through the credentialing process to obtain privileges for performing robotic prostatectomies.

Dr. Albani noted that he sees this technology becoming the standard of care in the near future. “Robotic-assisted surgery gives us the ability to provide our patients with the very best care possible. That puts Liberty Hospital at the frontier of surgery, now and in the future.”