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Robotic Prostatectomy: Beyond the Advertising

Advertising from hospitals and in certain cases, by urologists, has helped fuel a boom in robotic prostatectomies for treatment of localized prostate cancer over the last 5 years. In 2008, over 50% of radical prostatectomies in this country will be done laparoscopically, using the DaVinci robot.

As one who has taken a mini-residency and attended several “world congresses” on the subject, I, like you, are amazed at the technology—and how far some of my colleagues are “pushing the envelope” as regards not only prostatectomy, but also other major urologic operations lending themselves to this robotic technology. Patients are often attracted to newer and presumably more precise/less invasive procedures. Some men choose a technology first and a surgeon second; as opposed to doing what I’d consider to be more reasonable. Choose your surgeon 1st—and if he is as good as you think—he will do the procedure using the excellent skills/particular technique he has mastered, with your best possible outcome in mind.

Taking a step back (and accepting some will accuse me of “sour grapes”, since I am not currently using the DaVinci robot), what is the reality? Does this costly piece of technology, at present, really do better in treating your prostate cancer than modern open nerve-sparing prostatectomy?

Patrick Walsh, M.D., the renowned urologic surgeon from Johns Hopkins, one of the pre-eminent medical institutions in this country, sounds a bell of warning. Minimally invasive robotic prostatectomy, as it currently stands, may NOT be better for the patient than an open technique, especially when the latter is performed by a highly skilled urologist. Walsh cites one (2008) series from Harvard, showing a slightly lower risk of overall complications (30-vs-36%) and a shorter hospital stay (often by one day) for robotic-vs.-open cases. Robotic patients however, had different complications, not seen with an open

pelvic technique (e.g., intestinal issues and anesthetic problems related to patient positioning for robotic prostatectomy, as well as operative times that can be twice as long as with an open technique) Of more concern in this study, robotic patients were at higher risk for requiring additional treatments to control their cancer, often within the 1st year after surgery, by three-fold as compared to the “open” series. More experienced robotic surgeons had a lower rate of their patients needing additional therapy, but still not as favorable as with the “open” cases. It is generally felt that positive margins (i.e. cancer cells right to or beyond the line of surgical resection), based on the pathologist looking at the prostate after its removal, are more likely to occur with robotically-removed specimens; and even more so if done by urologists who have performed fewer than 100 such surgeries.

I can say personally that the ability to have a wide open surgical field and to directly feel the tissues in question seems to have some advantage, especially where the disease may be a bit more locally aggressive than average. With a small open incision and gentility/caution, the tissues do not seem to react any worse, from my perspective, than in those treated with “less invasive” techniques.

Eventually the technology for robotics will improve and may evolve a mechanism for tactile feedback. For now, however, advertising claims are unquestionably misleading; and there really is no good evidence that, over time, robotic prostatectomies have better functional or cancer outcomes than open nerve-sparing radical prostatectomies.

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