The Washington Post

TUESDAY, OCTOBER 15, 2002

Less Invasive, More Questions

Experts Debate the Benefits of Laparoscopic Prostate Surgery

BY SANDRA G. BOODMAN—*Washington Post Staff Writer*

The 180,000 men diagnosed with prostate cancer each year in the United States face a daunting array of options and little definitive guidance about which to choose.

Should they aggressively treat the cancer, which typically grows very slowly, or do so only if it progresses? Is surgery, with its dreaded risks of impotence and incontinence, preferable to radiation? Which kind of radiation is better: conventional external beam of a newer form that involves the implantation of radioactive seeds?

Now there's yet another choice.

Men can decide to have their prostates removed laparoscopically, a new and much debated surgical procedure that promises to dramatically reduce pain, blood loss and the month-long convalescence typically associated with the standard operation. Instead of a single five to 10-inch abdominal incision, the surgeon makes five half-inch cuts called ports. Fine instruments including a tiny video camera are threaded through these ports and are used to perform the surgery. The prostate is extracted through the middle port.

In the past two years, as word had spread about the minimally invasive surgery widely performed in Europe, a growing number of American doctors and hospitals has begun to offer — and in some cases aggressively market — the procedure that surgeons call a "lap prostate."

But the buzz about laparoscopic prostate surgery at medical meetings and on the Internet has alarmed some specialists, who say they fear that the procedure is being hyped and oversold.

The surgery was first performed in the United States in the early 1990s and quickly abandoned because it took an extraordinary long time to perform, resulted in excessive bleeding and did not yield better results than the standard operation. It was revived in the late 1990s by surgeons in Paris who refined the procedure, reducing bleeding and operating time.

The implications of a new surgical approach to treating the second most common male cancer are significant. One third of American men diagnosed with prostate cancer undergo surgery, which many urologists believe offers the best chance for a cure. The standard operation, radical retropubic prostatectomy, is typically performed on men who are under 70, otherwise healthy and whose cancers appear to be confined to the prostate.

Skeptics say the advantages laparoscopic surgery offers over standard surgery are at best minimal, while the risks can be substantial. Open prostate cancer surgery is one of the most challenging operations in urology; the prostate is a small gland buried in an almost inaccessible location near a host of vulnerable structures: the bladder, urethra, rectum, major nerves and arteries that control erectile function, among other things.

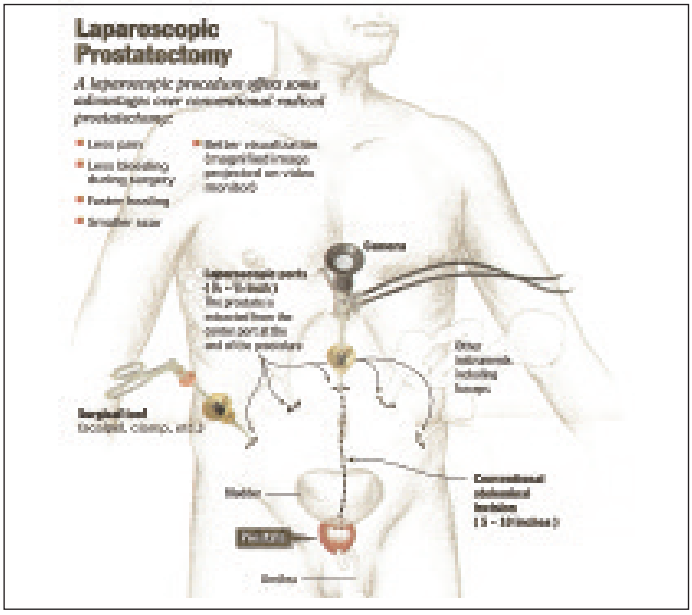
Laparoscopic prostatectomy is exponentially more difficult than open surgery, urologists agree. "People are going berserk over this, just because it's laparoscopy, but that doesn't automatically make it better." Said Louis R. Kavoussi, a pioneering laparoscopic surgeon who is vice chairman of urology at Johns Hopkins Medical Institutions. Kavoussi, a member of the first American team to perform lap prostates in the 1990s, said he did 20 and stopped because he didn't think the operation, which then took and average of nine hours, was superior to open surgery.

"I don't want to kill the procedure; it needs to be studied," Kavoussi added. "But it's not like kidney surgery, where we saw a tremendous, immediate benefit" from laparoscopy.

While laparoscopic surgery for prostate cancer offers some benefits — minimal bleeding, faster recovery, less pain — there is no convincing evidence that it has achieved the most important goals: eradicating cancer while leaving a man both continent and potent.

"It sounds good, but so far the claims that it's better are unsubstantiated," agreed Michael Manyak, acting chief of urology at George Washington University Medical Center, which, like most hospitals in the Washington area, does not offer laparoscopic prostatectomy.

Locally urologists at Hopkins and Georgetown University Hospital perform the surgery, as do surgeons at the Cleveland Clinic, Memorial-Sloan Kettering Cancer Center in New York and Massachusetts General Hospital in Boston. But at nearly all these institutions most prostate cancer operations are still done the old-fashioned way.



One reason for the cautious approach is the absence of data showing whether laparoscopic surgery is better than — or even as good as — standard surgery. No long-term studies documenting the rates of cancer recurrence, impotence or incontinence exist because the procedure is so new and relatively few patients have had published studies detailing their results, according to Kavoussi.

That hasn't dampened the enthusiasm of Miami urologist Arnon Krongrad, who says laparoscopy has sparked "a revolution" in treating prostate cancer, just as it transformed gallbladder and kidney surgery.

Three years ago Krongrad observed his first lap prostate in Paris, performed by the team that refined it. Krongrad said he was so impressed he came home and began doing the operation on patients in his private practice.

Since then, Krongrad said, he has performed more than 100 lap prostates, a growing number on patients from outside Florida. He has abandoned the open surgery he performed for 15 years, which he now considers inferior.

"This approach has absolutely snowballed," Krongrad said. "Patients seek it out."

Among them is Dennis Lincoln, 57, a Fort Lauderdale business owner who underwent the surgery two years ago, becoming Krongrad's third laparoscopic patient.

"It just made too much sense to me to do it this way: The less invasive, the better," Lincoln said. Less than 48 hours after his five-hour operation, which was performed under general anesthesia, he was back in his office and worked a full day.

After 48 hours, most open surgery patients are shuffling gingerly up and down a hospital corridor, anticipating their next dose of narcotic painkiller.

"It was amazing," Lincoln recalled, adding that he took nothing stronger than an occasional mild analgesic. "Why would anyone have the old procedure when there is something like this?"

But some urologists, including those who specialize in laparoscopic surgery and believe it holds great promise, have adopted a more restrained approach.

"I think it's a fairly good operation and patients have been very satisfied with it," said Li-Ming Su, director of Pelvic Laparoscopy at Johns Hopkins Bayview Medical Center, who has performed 60 laparoscopic prostatectomics.

"But it's a very tough surgery, even in my hands," said Su, who completed a fellowship in laparoscopic urology. "I worry about people doing a few operations and then saying they can do it. At Hopkins we've approached it very cautiously. I tell all my patients that in the year 2002 the gold standard is open radi-

Continued on page 2

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Does Incision Size Matter?

cal prostatectomy."

Ports of Entry

One of the obvious advantages of laparoscopic surgery is the absence of a long incision. Laparoscopy is performed through a quintet of ports across the lower abdomen. The middle port, through which the prostate is extracted, can be enlarged if the surgeon encounters complications and needs to quickly convert to standard surgery. Internally the laparoscopic operation is similar to the open procedure.

An array of surgical tools – scalpels, tweezers, a miniature video camera – are housed in lighted tubes inserted through the ports. The magnified images of pelvic organs are projected on monitors that doctors watch during the surgery. Surgeons say that this magnification enables them to do a better job reconnecting the urethra and the bladder, which may reduce postoperative incontinence. The urinary catheter can also be removed more quickly after laparoscopic surgery, in five days rather than the usual 10.

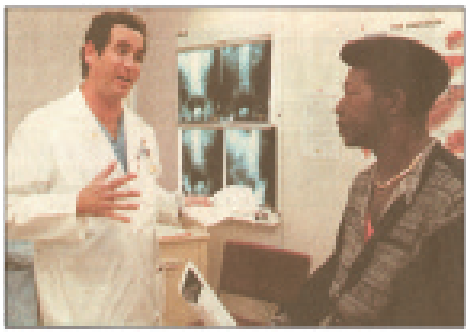
While the length of the operation varies, it usually takes 3 ½ to five hours and sometimes as long as 12, compared with the 2 ½ to three hours typical of an open procedure. Unlike open surgery, which is often performed under a spinal anesthetic, lap prostates require general anesthesia.

After surgery, the ports are covered with small circular bandages. These incisions typically heal much faster and with far less pain than a long incision. As a result, patients typically stay in the hospital only one or two nights, rather than the usual two or three after open surgery.

But the difficulty of performing a laparoscopic prostatectomy is hard to overstate, urologists caution.

"The learning curve for this surgery is vertical," said Robert Mordkin, director of Georgetown's new Center for Laparoscopic Urology. Mordkin, who has performed about 14 such procedures, jokes that "when I'm in the middle of a case, I regularly ask myself why I'm doing this."

Laparoscopic surgery, Mordkin noted, requires surgeons to master different technology using an entirely different set of surgical instruments. Surgeons, who are traditionally trained to peer inside the body and to rely on tactile sensations, must rely instead on two-dimensional images projected on a video screen. Their hands never touch the patient's organs.



Surgeon Robert Mordkin of Georgetown University Hospital conducts a postoperative consultation with Leopold Richards, 51, of Martinsville, W.Va., who underwent laparoscopic surgery to remove a cancerous prostate. While the new surgery leaves a smaller scar and heals faster, patients are usually on the table longer. Whether the surgery reduces incidence of the major side effects that concern men – impotence and incontinence – remains unknown.

That's not necessarily a good thing, according to Hopkins chief urologist Patrick C. Walsh, inventor of the modern nerve sparing prostatectomy, which preserves sexual function.

"During open surgery, surgeons can find out much by feel," Walsh wrote in his 2001 book "Dr. Patrick Walsh's Guide to Surviving Prostate Cancer." And he noted, "Tactile sensation – feeling subtle differences in tissue with our gloved fingers – shows us exactly where to cut…Here the laparoscopic surgeon is operating at a distinct disadvantage: one important avenue of information and feedback is lacking."

Kavoussi said the legendary difficulty of laparoscopic prostatectomy has led to horror storied that circulate among doctors. One involved a surgeon who inadvertently removed only half of a patient's cancerous prostate; in another case a surgical team "lost" the gland inside the patient's body.

While there's no consensus on the length of the learning curve, most specialists say it takes about 50 cases to achieve proficiency.

George Washington's Manyak said he worries that some urologists won't get adequate training in a procedure he believes is driven more by aggressive marketing than good medicine.

"There's a push to do this because it makes you look like you're doing the latest thing, that you're a better surgeon," said Manyak, who favors performing other urologic procedures laparoscopically. "There's a certain entrepreneurial spirit in urology" and a competition for patients, especially in major metropolitan areas like Washington.

But Manyak, who is 51, concedes that the reluctance of many urologists to perform lap prostates may reflect a generational schism: Younger surgeons are more likely to receive such training and may be more open to innovation than doctors pushing 50.

"It's hard to teach an old dog new tricks," quipped Georgetown's Mordkin, who is 36.

But said he does not "sell" laparoscopy to his patients. "I could do a lot more cases if I put a spin on it or sold it, but I don't," he said. "I just present it: 'Here's A and here's B.' "

Some surgeons say it is harder to perform nerve-sparing surgery laparoscopically. "We're not sure yet that we are sparing the nerves as well as with open surgery," said Su of Hopkins.

Although Mordkin said he believes the laparoscopic alternative will ultimately replace the standard procedure, he advises his patients who are particularly concerned about impotence to have open surgery.

The Patient View

Carl Hicks, a 60-year-old, self-employed management consultant who lives in Chevy Chase, decided to have laparoscopic surgery at Georgetown last December in part because of what he'd seen his younger brother endure after surgery for prostate cancer that had spread to his bladder.

"I'd seen my brother's incision, I'd watch him drag that catheter around for weeks and I liked the idea of quicker recovery," Hicks said. "Rob [Mordkin] told me it was experimental, and he didn't try to sell me on it." Hick's surgery, which lasted seven hours, was converted from a laparoscopic to an open procedure after Mordkin had trouble reconnecting the bladder.

The conversation didn't bother Hicks, even though it necessitated a second night in the hospital and a longer recovery. "I knew up front that was a possibility," he said.

Seven months ago when he was diagnosed with prostate cancer, Charlie Royce of Grand Rapids, Mich., explored all his treatment options. He talked with friends and relatives and corresponded with Walsh and a surgeon at the Mayo Clinic.

Everyone told him that surgery was his best chance for a cure. His cancer appeared to be small, and at 39, Royce was unusually young; his cancer was likely to spread.

His urologist in Grand Rapids mentioned laparoscopic surgery in passing. While researching treatments on the Internet, Royce said he stumbled upon Krongrad's extensive Web site, studded with stories of patients extolling the virtues of laparoscopy. One man said he drove himself to the airport after surgery. Others, like Dennis Lincoln, returned to work quickly.

That especially appealed to Royce, who owns a small manufacturing plant. He was especially concerned about telling his 25 employees he had cancer and about taking a month off to recover.

"Initially I was skeptical [about laparoscopic surgery], and my wife was even more so," Royce recalled. After several phone conversations with Krongrad, he called a few of the surgeon's patients. "Every one of them said, 'It's too good to be true, and you've got to do it,' " Royce recalled.

So Royce told his employees he was taking a week's vacation in Florida. He and his wife then flew to Miami for surgery at the community hospital where Krongrad operates.

"Everything's been fine," said Royce, who was back at work the following week, the day his catheter was removed. Royce said he has had no problems with incontinence or impotence.

Experiences like Royce's have convinced Krongrad that laparoscopic prostatectomy will inevitably eclipse open surgery.

Hopkins's Louis Kavoussi remains unconvinced. "If it's a good thing," he said, "then it'll prove itself."