

## Chapter 1

### Did You Really Just Say You Don't Care Where the Ureter Is?

*“I really don't care, in fact I wish him well, 'cause I'll be laughing my head off when he's burning in hell.”*

*-Weird Al Yankovic “Amish Paradise”*

## Laparoscopic Single Port Hysterectomy

When asked about the importance of ureteral dissection at time of hysterectomy, many authors advocate the identification of the ureter, almost without exception. This is both impractical and unnecessary. Dr. Cohen, in her 2019 synopsis of laparoscopic hysterectomy, strongly recommends the same.<sup>1</sup>

This is a waste of time in almost every case. Clearly, ureteral injury needs to be avoided, but entering the retroperitoneum in order to identify the ureter should be a rare occurrence in the career of any gynecologist, outside of the gynecologic-oncologist, and the entry into the retroperitoneum simply for the purpose of stating “I saw it,” should be deemed unconscionably reckless.

Instead of identifying the ureter to proudly state that “thou hast seen it,” I suggest a new way of looking at the situation: a man from the future arrives and asks if you would prefer a nuclear bomb to blow up in your home or on the surface of Jupiter. Do you need to check Jupiter to be sure your family isn’t there? Do you need to call your daughter to be sure she isn’t vacationing on Jupiter this week? No, because your family simply cannot be on Jupiter.

There is no way for them to get there, thus this technique. We don’t care where the ureter is, because the ureter is not where we are operating. The technique described herein digs into the uterine serosa, and from some aspects may be seen as encouraging other complication from this technique, including the existence of residual uterine serosa that could lead to future fibroid formation, or even sarcoma. What this technique does not allow for, if performed faithfully, is the invasion into the abdomen organs outside of the uterus. Where others have said “see the ureter and cut where it is not,” I say, simply, “cut only where the ureter cannot be.”

## Laparoscopic Single Port Hysterectomy

So why am I so scared of retroperitoneal dissection? It's the numbers.<sup>2</sup> Is there any harm in diving into the retroperitoneum to seek out the ureter and find its course? Probably not if you only do it once. Probably not if you do it even twice. Think about how many hysterectomies you're going to perform during your career. For the average gynecologist, it will be in the range of 2,000. For an ultra-high-volume surgeon, it could be multiples of that. If you think that every time you enter the retroperitoneum your surgical skills and the good Lord will save you from a shit-storm injury that requires other specialties to fix, you are sadly mistaken.

Therefore, I humbly present this technique I have developed. Take it from me; when the good Lord decides to shit in your corn flakes, he shall do so, and he shall do so with such force and magnitude that you will regret your course of action for quite some time.

This technique involves an unabashed dissection directly into the uterus. For each bite you take in the initial pedicle dissection, you need to grasp the broad ligament and all adjacent structures and push into the uterus before cutting and burning. For this, I recommend a bipolar electrical cautery device, preferably one that contains a sharp blade for cutting following the cauterization.

At the time of this writing, Covidien's Ligasure™ seems to be the best instrument for this purpose, although I would strongly recommend their 5mm blunt instrument, as their 5mm "Maryland"™ Instrument unfortunately was mistakenly designed with sharp plastic points, and an extremely non-intuitive system of initiating the bipolar energy. The Maryland device requires the surgeon to completely compress the device with the fullest amount of force to activate the energy - there is no other way. This is very unfortunate for two reasons. First, the ultra-sharp plastic points often perform "unintended" dissection into

## Laparoscopic Single Port Hysterectomy

planes that don't need dissection in order to complete this procedure. For this procedure, in essence, the goal is to take all of the pedicles, from fallopian tubes to entering the vagina, with all-encompassing bites of bipolar energy. Each bite pulls together both leaves of the broad ligament, permanently sealing them together in perfect hemostasis, while pushing ever medial, leaving behind a sealed broad ligament, a removed uterus, and excellent hemostasis. Leaving the broad ligament unsealed invariably leads to bleeding, which leads to more lateral application of energy, and that leads to the necessity of cautery adjacent to the ureters. To prevent the last step of this cascade, we need to prevent the first. To do this, we need a strong 5mm bipolar device, and it needs to seal the leaves of the broad ligament as we progress through the procedure.

This seems like a good time to bring up Megatron. Megatron, of course, refers to Da Vinci's™ latest example of whatever robot they are pushing. Video game control of laparoscopy seems seductive, especially in the circumstance of a single-port procedure. However, I warn you - do not be fooled. Megatron is not minimally invasive and arguably may not be laparoscopy.

It has been said that the only true hand-assisted laparoscopy is when you require someone to perform manual masturbation on you in order to obtain the calmness and confidence to perform the procedure - everything else is just a laparotomy.

The same is true with the robotic version of minimally invasive surgery. Centers performing solely single port hysterectomy procedures are reporting herniation rates as high as 23%.<sup>3</sup> Commercial specifications for the Da Vinci SP™ indicate a required incision greater than 2.5cm<sup>4</sup>, well outside the size that laparoscopy usually uses. I caution you, this is not minimally invasive surgery.

## Laparoscopic Single Port Hysterectomy

Three exceptions exist in which robotic usage can be deemed acceptable:

The first is the surgeon who performs only open surgery, who can be taught a simple laparoscopic entry technique, and who can perform a hysterectomy while sitting at the robotic console, unable to grasp the spatial and technical skills required to perform a straight-stick hysterectomy. And, while I would prefer to see this “surgeon” refer his surgical caseload to a more experienced surgeon, it is not unacceptable for him to be taken under the wing of a surgical product representative to learn and master robotic hysterectomy. This is preferable to him or her continuing mostly open hysterectomies.

The second is the reproductive endocrinologist, or any practitioner taking on his caseload. Women desiring pregnancy often require extensive and time-consuming myomectomies, which can benefit greatly from the usage of a robotic surgical platform. Dissecting into the uterine myometrium in order to remove a fibroid and sew up the ensuing incision can be a tricky process using straight stick laparoscopy, and one cannot be faulted for employing the services of a robotic platform for this purpose.<sup>5</sup>

The last exemption from deserved ridicule for robotic usage comes from those practicing gynecologic oncology. Several of my colleagues have stated that the double-articulating arms of the robotic devices provide excellent control for the very articulate dissection of lymph nodes in the area of the large retroperitoneal vessels, most notably the aorta.<sup>6,7</sup>

As I am not a practitioner of these arts, I will take them at their word. For all others, I strongly consider the robotic approach to be both an unnecessary expense (which is forgivable) and an unnecessary extension of operative time (which is *not*.)

### References:

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