Chapter 11

Time to Remove the Uterus (Without using the "M" Word)

"The alternative to morcellation is to remove the uterus intact through an abdominal incision (abdominal hysterectomy)."

-ACOG

Back when I completed my formal surgical training, and dinosaurs roamed the Earth, laparoscopic hysterectomy was an extreme minority. As a result, whenever we just completed all the pedicles on a vaginal hysterectomy and found the uterus was simply too large to remove vaginally, we used a technique we called "bivalving the uterus." This method allowed us to remove the mass of uterus vaginally. This is, of course, referring to making a bisecting incision in the uterus, most commonly cervix-to-fundus, which changes the maximum diameter of the uterus so that it can fit out the vaginal orifice.[45] After performing this procedure multiple times, it just simply became second nature and that by repeatedly bivalving or repeatedly making incisions into the uterus to express a smaller diameter of uterine body, essentially any size uterus could be removed through the vagina. Uteri as large as 3,000 grams have been removed by this technique.

Although conceivably any size uterus could be "bivalved" in such a manner that it never becomes more than one "piece," similar to spiral-cutting a single orange into a 6 foot length of peel and triangles, in reality no one did that in my training and no one would ***ever*** do that. We performed the "bivalving," removed some tissue, repositioned, got a little more, and so on, until all the uterus was out, likely in quite a few pieces. What we were really doing was manual vaginal morcellation. As the average gynecologist's skill-set had moved away from vaginal hysterectomy and toward laparoscopic hysterectomy in the last decade, the art of removing large masses vaginally is a skill in decline.

Fast forward a few decades and we have "morcellation," a term once associated with the most innovative advancements in laparoscopic surgery, which has now become an extremely controversial word that brings fear to the heart of any hospital administrator. There

are many reasons that abdominal power morcellation fell out of favor in the last 10 years.[46] Some of this has to do with injudicious patient selection, and many practitioners have used abdominal power morcellation on patients that were not appropriate candidates. ***Uteri that can be removed vaginally always should be, and always should have been.***

Another reason had to do with the absence of data to definitely disprove the benefit of supracervical hysterectomy,[47,48] and since posterior colpotomy with a cervix in place is a more rare skill,[49] this also may have resulted in more abdominal morcellation than necessary. Whatever the reason, this culminated with a 2014 FDA Black Box warning about using power morcellators and the possibility of spreading leiomyosarcoma.[12]

The majority of the cases of spreading leiomyosarcoma were a direct result of poor patient selection. In other words, surgeons that easily could have removed uteri vaginally did not, and continued the laparoscopy or robotic assisted surgery just because they could. But this is not to say that abdominal power morcellation does not have its place. Some tissues, especially ovarian, can be reliably ruled out as malignant. In other circumstances, patients may simply be too sick with comorbidities to reliably recover from a midline laparotomy. Lastly, in some cases, such as a fertility sparing myomectomy, the patient may choose to forgo the large laparotomy once they understand the risks of morcellation, and should be entitled to the less invasive surgery if that risk is understood. Suggesting that power morcellators should be banned is akin to suggesting chemotherapy to a patient that did not have cancer and then complaining that the side effects of the chemotherapy meant that all chemotherapy should be banned.

In honest retrospect, ***there just weren't that many cases where power morcellation was really needed.*** Any

skilled gynecologic surgeon will quickly realize that removing masses through a colpotomy, even a posterior colpotomy with a retained uterus, is a faster, easier, safer technique, and it is one that is extremely worthwhile to master.

Vaginal removal of the uterus, regardless of its size, will be the preferred modality for completing this laparoscopic technique. Although most uteri will be able to be removed without “bivalving” (vaginal morcellation), the technique is a critical component of this surgery.

References:

46) Grody, M. H. T. (1989). Vaginal hysterectomy: the large uterus. Journal of Gynecologic Surgery, 5(3), 301-312.
47) Wright, J. D., Chen, L., Burke, W. M., Hou, J. Y., Tergas, A. I., Ananth, C. V., & Hershman, D. L. (2016). Trends in use and outcomes of women undergoing hysterectomy with electric power morcellation. Jama, 316(8), 877-878.
48) Kuppermann, M., Summitt, R. L., Varner, R. E., McNeeley, S. G., Goodman-Gruen, D., Learman, L. A., ... & Showstack, J. (2005). Sexual functioning after total compared with supracervical hysterectomy: a randomized trial. Obstetrics & Gynecology, 105(6), 1309-1318.
49) Milad, M. P., Morrison, K., Sokol, A., Miller, D., & Kirkpatrick, L. (2001). A comparison of laparoscopic supracervical hysterectomy vs laparoscopically assisted vaginal hysterectomy. Surgical endoscopy, 15(3), 286-288.
50) Pillai, R., & Yoong, W. (2010). Posterior colpotomy revisited: a forgotten route for retrieving larger benign ovarian lesions following laparoscopic excision. Archives of gynecology and obstetrics, 281(4), 609-611.