

Vaginal Hysterectomy: 5 Steps for Large Uteri

BY SHARON WORCESTER

EXPERT ANALYSIS FROM AN INTERNATIONAL PELVIC RECONSTRUCTIVE AND VAGINAL SURGERY CONFERENCE

ST. LOUIS – The vast majority of benign hysterectomies can – and should – be performed vaginally, according to Dr. Carl W. Zimmerman.

In fact, more than 90% of uteri weighing less than 250 g are accessible and can safely be removed vaginally by using guidelines endorsed by the board of directors of the Society of Pelvic Reconstructive Surgeons. Considerable evidence exists that many larger uteri also can be removed safely via the vaginal route, he said at the conference, which was sponsored by the society.

Despite this evidence, however, the minimally invasive vaginal approach remains underused in the United States, said Dr. Zimmerman, professor of obstetrics and gynecology at Vanderbilt University, Nashville, Tenn.

A lack of experience, familiarity with technique, and confidence is the main reasons why surgeons avoid the vaginal approach in favor of more invasive abdominal, laparoscopic, and robotic techniques. While the choice for vaginal hysterectomy should be made based – to a certain extent – on guidelines, it is important to consider skill acquisition, experience and competency, he said.

He encouraged those who are “on a learning curve” in terms of performing vaginal hysterectomy in patients with large uteri to obtain more experience by using this technique for uteri of 14-16 week size.

“That may sound big, but you’ll be amazed, you’ll be empowered, and your patients will do well,” he said, strongly recommending consideration of the concept of removing larger uteri by this method.

He outlined five main steps that must be completed to successfully remove an enlarged uterus vaginally, and provided tips on surgical instrumentation that can facilitate vaginal hysterectomy in cases involving a large uterus.

The first step is entry into the peritoneal cavity. This can be accomplished anteriorly or posteriorly, but experienced operators will delay entry into the anterior segment until the uterosacral and cardinal ligaments have been detached, and therefore they typically enter posteriorly.

“It’s often available to you, and it’s the easiest entry into the peritoneal cavity,” he said of the posterior approach.

The next two steps are to detach the uterosacral and cardinal ligaments, and to ligate the uterine artery.

Keep in mind that fibroids are the most common cause of uterine enlargement, and that most of the anatomical distortions in the fibroid uterus are limited to the area superior to the uterine artery. This “concept of uterine anatomic distortion” means that once steps 1-3 are completed, you “can be innovative about the way you debulk and remove the uterus. Once you have secured the support system, and you have divided the blood supply, then it becomes a mechanical exercise in converting a roughly globular structure into either various components that will come out, or a shape that will change and come out,” he explained.

Once the fourth step of debulking and removing the uterus is completed, the final step – vaginal adnexectomy – can be performed as needed based on the same indications that would be used if a scope was in place, or if the procedure was done abdominally, he said.

As for the best approaches to debulking the uterus, Dr. Zimmerman said morcellation is his primary technique, followed by coring, which is very useful for the adenomyotic uterus – and is particularly valuable for managing uteri up to 17 weeks in size.

The typical tools used in gynecologic surgery, such as Haney clamps, straight needle holders, and short instruments may be inadequate for performing vaginal hysterectomy involving large uteri. Instruments Dr. Zimmerman recommends for improving surgical skill and outcome include:

► **Retractors.** The correct retractors are one of the keys to success in vaginal hysterectomy; shop around and find the type that fits best into your system, Dr. Zimmerman advised. He listed Heaney, Harrington, malleable ribbon, Breisky-Navratil, and Steiner-Auvard among good options. Deaver retractors should be avoided

because they increase risk of bladder injury, he said.

► **Scissors.** The right scissors can help with debulking when difficult angles are encountered. Jorgenson scissors, which Dr. Zimmerman learned to use in abdominal hysterectomy, are also useful in vaginal hysterectomy, because they create a right angle very valuable for debulking the uterus. Martin cartilage scissors, which have sharp points at the tips that can allow for insertion into a myoma and allow wedges to be cut, are very helpful, he said.

Even a very dense or calcified myoma can be transected and debulked using these scissors.

► **Lights.** Whatever you choose to use to gain extra light is a good idea, he added. The Vital Vue surgical light, and a newer version – the

Versalight, which is a multifunctional surgical light that provides irrigation, suction, and retraction, are good options. Dr. Zimmerman disclosed that he helped design the Versalight.

► **Vulsellum forceps.** These are useful for grasping myoma. Lahey, Gordon, and Segond forceps are all good options.

► **Myotomes.** Cobb and Langenbeck periosteal elevators that have been modified into both chisel tip and spoon tip myotomes can be helpful for enucleation.

With the proper equipment and surgical skills, vaginal hysterectomy is feasible in most cases, and the reduced morbidity, costs, and hospital length of stay associated with this approach should be enough incentive to encourage gynecologists to increase proficiency in the vaginal approach, Dr. Zimmerman said.

Keep in mind, he added, that in appropriately informed patients who have given consent to surgery, conversion to a more invasive approach is not a complication.

Dr. Zimmerman is a speaker/proctor for Cook Medical, proctor for Boston Scientific Corp. and Covidien, and receives Royalties from Lumitex Inc. and Marina Medical Instruments Inc. ■

Consider Coring Technique To Facilitate Vaginal Surgery

BY SHARON WORCESTER

EXPERT ANALYSIS FROM AN INTERNATIONAL PELVIC RECONSTRUCTIVE AND VAGINAL SURGERY CONFERENCE

ST. LOUIS – Coring is an excellent technique for facilitating vaginal hysterectomy in patients with large adenomyotic uteri, according to Dr. Carl W. Zimmerman.

Adenomyosis creates a very dense, unforgiving myometrium that is very symptomatic for the patient, and affected uteri can reach at least 20 weeks in size without a well-defined mass that can be enucleated, he said at the conference, which was sponsored by the Society of Pelvic Reconstructive Surgeons.

Debulking is a challenge in cases like this, but a coring technique that changes the shape of the uterus can ease removal.

An incision is made around the cervix, the paracolpium is divided, and

the blood supply is divided, creating a bloodless organ, he said.

“What you do then is take a knife and make an encircling cut concentrically around the cervix and into the fundus of the uterus, but parallel to the long access of the uterus and endometrial cavity, going around and around and around,” explained Dr. Zimmerman, professor of obstetrics and gynecology at Vanderbilt University, Nashville, Tenn.

If you do this long enough, and make incisions parallel to the endometrial cavity and away from the serosal surface of the uterus, the globular structure is converted to a tubular structure that can be a foot long or longer, and which “literally comes down to meet you,” he said.

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Large Increase in Surgeries Predicted for SUI, Prolapse

EXPERT ANALYSIS FROM THE ANNUAL MEETING OF THE AMERICAN UROGYNECOLOGIC SOCIETY

LONG BEACH, CALIF. – If present trends continue, U.S. surgeons will be performing 179,000 more incontinence and prolapse surgeries annually in 2050 than they are today.

The projected increase results primarily from an aging population, Dr. Jennifer Wu said at the meeting.

Stress incontinence surgeries are predicted to increase from an estimated 211,000 in 2010 to 310,000 in 2050. Similarly, surgeries for pelvic floor prolapse are predicted to increase from 166,000 this year to 246,000 in 2050.

Dr. Wu of Duke University, Durham, N.C., and her colleagues used three sources of data in making their forecast. The U.S. Census Bureau provided estimates of the female population in various age groups between 2006 and 2050. Data on the number of women undergoing these surgeries, broken down by age group, came from the Nationwide Inpa-

tient Sample of 2007 and the National Survey of Ambulatory Surgery of 2006.

The largest number of surgeries occurred among women aged 40-59 years. During the survey years, 48,050 women in that age group underwent inpatient surgery and 53,790 underwent outpatient surgery for incontinence. Similarly, 49,490 women underwent inpatient surgery and 20,700 underwent outpatient surgery for prolapse.

“These estimates will provide public health officials and policy makers with important information regarding the future disease burden as well as the economic impact of these procedures,” Dr. Wu said. The projections rested on assumptions such as that surgery rates would remain constant. That assumption could be overturned by changes in the incidence of disease, advances in technology and surgical technique, or implementation of successful prevention strategies.

Dr. Wu stated that she had no relevant financial disclosures.

—Robert Finn