Expert Describes LESS for Total Hysterectomy

BY ALICIA AULT

NEW ORLEANS — Laparoendoscopic single-site surgery has been gaining credibility in urology and general surgery but has been less accepted in gynecologic surgery, even though it offers many advantages to patients and is not much different from traditional laparoscopic surgery, said Dr. Kevin Stepp.

Dr. Stepp, director of gynecologic surgery education at MetroHealth/Cleveland Clinic, presented a video on basic laparoendoscopic single-site (LESS) techniques for a total hysterectomy and related his experience using the procedure to the Society of Gynecologic Surgeons at its annual meeting.

With LESS, there is only one incision through the umbilicus. Specific instrumentation and a single port that allows multiple devices to access the abdomen are used. Dr. Stepp said he has employed the TriPort laparoscopic access device, made by Advanced Surgical Concepts.

Other techniques and ports are available, and each has its own advantages, he said.

The surgical entry is through the traditional laparoscopic technique, with instruments advanced through the TriPort.

The port's plastic sleeve is pulled up as the port and instruments are advanced, until the port is firmly in place against the abdomen, said Dr. Stepp. The port is clamped in place.

Dr. Stepp recommended suturing the peritoneum to the fascia in obese patients to prevent the port's inner ring from slipping into the pre-peritoneal space.

With laparoscopy, there is always the potential for what Dr. Stepp called "sword fighting" or the clashing of instruments. With a single port, instrument handles are close together. But LESS-specific instrumentation—designed with flexible tips—helps minimize the potential for sword fights, he said. Olympus makes a camera that can flex greater than 90 degrees in any direction, for instance.

The most exciting development, to Dr. Stepp, was the reduction in narcotics use. Patients were taking narcotics an average of 2.5 days, and then using ibuprofen for 5 days.

Several companies make instruments with reticulated hands that allow the operator to triangulate and increase the distance from each operating hand.

The LESS total hysterectomy is performed in a manner similar to the laparoscopic technique. "For total hysterectomies, we find it easier to begin with the primary surgeon standing near the patient's left shoulder," said Dr. Stepp.

Once the uterus is ready for removal, it can be delivered vaginally, he said. The vaginal cut can be closed laparoscopically, but the learning curve is greater, he said.

Suturing can be facilitated with a suturing device, but with a multichannel port, the suture sometimes can get wrapped around other devices. "We suggest removing them if possible" during suturing, he said.

Initial experience has shown that LESS is not much different from conventional three-port laparoscopy, said Dr. Stepp.

It is important to keep the instruments lubricated and maintain the seal around the port.

The camera can be kept in a vertical position, which is good for posterior views and helps it stay out of the way of operative instruments outside the body.

Or the camera can be kept in a more horizontal position, flat against the patient's abdomen and chest; that also keeps it out of the way of the operative instruments.

And by using the right and left flexion on the camera, the distance can be increased even further, providing more work space, he said.

"If you use three ports for your laparoscopy, you can do this," Dr. Stepp told attendees.

It also is possible to do it without losing money, if device purchases are made judiciously. TriPort and its competitors seem to cost $300-$350. Some tools already on the shelf can be used, but the newer LESS-specific devices may run $100-$400 each.

Dr. Stepp reported on 22 patients who underwent LESS at MetroHealth, 19 of them for hysterectomies.

The initial operative time was just under 3 hours, but so far in 2009, the surgeons have shaved 30 minutes off the procedure, and they're doing larger uteri, he said. Surgery time was directly related to body mass index and uterine weight.

The mean uterine weight was 324 g, but the procedure has been done on uteri weighing up to 1,600 g.

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Patients were taking narcotics an average of 2.5 days, and then using ibuprofen for 5 days.

Patients desiring to go back to work were on the job in 3.5 days, the surgeon reported.

The presence of adhesions did not change operative time.

There were no interoperative complications and no conversions. Vaginal bleeding on day 6 in one patient was repaired with sutures.

Dr. Stepp and his colleagues have performed LESS on all patients they would have addressed with three surgical incisions, including emergent cases.

"It is truly an amazing time, an exciting time for minimally invasive surgery," Dr. James Carter, director of gynecologic minimally invasive surgery at the Medical University of South Carolina, Charleston, said in discussing Dr. Stepp's work.

He said that it should encourage gynecologic surgeons to push the envelope, as urology and general surgery colleagues have.

The tips from Dr. Stepp "should perhaps shorten the learning curve," he added.

Dr. Stepp disclosed that he is a consultant for Covidien, a health care device and supplies company. ■

Mesh Sling Effective Long Term for Complicated USI

BY ALICIA AULT

NEW ORLEANS — The pubovaginal Mersilene mesh sling is effective in treating complicated urinary stress incontinence and holds up as long as 15 years, based on follow-up data for 296 patients in a trial first reported on in 2001.

The goal of follow-up was to determine the short- (less than 2 years), intermediate- (2-5 years), and long-term (more than 5 years up through 18 years) objective and subjective efficacy of the mesh sling for three at-risk urinary stress incontinence (USI) subgroups, Dr. Stephen B. Young said at the annual meeting of the Society of Gynecologic Surgeons.

Overall, the objective cure rate was 89% in the 194 patients who had short-term urodynamic studies. In the 45 patients in the intermediate group, the objective cure rate was 87%, and in the 57 patients in the long-term group, it was 91% (see chart).

The subjects in the study were diagnosed with urinary stress incontinence between 1990 and 2008. The results of the initial 5-year study were published in 2001 in the American Journal of Obstetrics and Gynecology (185:32-40), with Dr. Young as the lead author.

The procedures were all performed by a single surgeon at a single institution.

The patients were followed at 1, 5, 10, and 15 years with urodynamic studies.

Of the 306 patients in the initial study, 133 (43%) had intrinsic sphincter deficiency, 82 (27%) had recurrent USI, and 91 (30%) had chronically increased intra-abdominal pressure. (Ten patients were not followed because they did not have the urodynamic studies.)

The short-term cure rate was 81% for intrinsic sphincter deficiency patients, 96% for the recurrent USI group, and 96% for the intra-abdominal pressure group. At the longer mark, cure rates were 90% for the intrinsic sphincter deficiency group, 84% for the USI group, and 100% for the intra-abdominal group, Dr. Young, chief of urogynecology and reconstructive pelvic surgery at UMass Memorial Medical Center in Worcester, reported.

The subjective cure rate was based on patients' response to question 17 on the Pelvic Floor Distress Inventory–Short Form 20 (PFDI-20), which asked whether there was leakage related to coughing, sneezing, or laughing.

Only 136 patients completed the PFDI and the short form of the Pelvic Floor Impact Questionnaire (PFIQ-17), however. Dr. Young said that he and his colleagues plan a complete analysis of the two questionnaires and of a home pad test.

And yet another study will analyze all the adverse events for the 306 patients.

Discussant Dr. Ralph Chesson, section chief of urogynecology and pelvic surgery at the Louisiana State University Health Sciences Center, New Orleans, said that the study proved that the mesh sling "had excellent short- and long-term success rates in a beautiful study."

But he noted, just having a single surgeon somewhat weakened results.

Dr. Young said he had no disclosures to report. ■