Uterosacral Vaginal Vault Suspension Advocated

Expert says it's his preferred treatment for older patients who have apical prolapse and low risk of recurrence.

BY SHARON WORCESTER
Tallahassee Bureau

FORT LAUDERDALE, FLA. — Uterosacral vaginal vault suspension is the treatment of choice for patients with apical prolapse and a low risk of recurrence, Matthew Barber, M.D., said at a symposium on pelvic floor disorders that was sponsored by the Cleveland Clinic Florida.

"This is my vaginal apex operation of choice—I believe in it," said Dr. Barber of the clinic.

He described the operation as an anatomic procedure, as opposed to a compensatory procedure, which is more suitable for those with a higher risk of recurrence.

Age is probably the most important factor in patient selection; those aged over 60 years tend to have the lowest risk of recurrence.

Other selection criteria include a good pelvic floor and endopelvic fascia and a good caliber vagina.

Patients who are younger and those who have attenuated endopelvic fascia, neuromuscular disease, or compromised vaginal caliber are better candidates for a compensatory repair such as abdominal sacral colpopexy, Dr. Barber said.

The proximal uterosacral suspension procedure that he prefers involves provision of apical support to the anterior and posterior vaginal walls. It is associated with less recurrence than nonanatomic repairs, provides good vaginal depth of 7-10 cm, and can be performed vaginally, abdominally, or laparoscopically.

Patient selection criteria for the procedure include age over 60 years, a good pelvic floor and endopelvic fascia, as well as a good caliber vagina.

The goals of the procedure include reapproximation of the superior edge of the anterior fascia with the superior edge of the posterior fascia, and suspension of these to a strong fixed structure—in this case the proximal uterosacral ligament.

In one series involving 46 patients with an average 40-month follow-up, Dr. Barber achieved a cure rate of 90%. At a 15.5-month follow-up preoperative symptoms had improved significantly from baseline: prolapse (100% of patients at baseline to 10% at follow-up), voiding dysfunction (59% to 7%), need for splint to void (17% to 0%), and constipation (26% to 12%).

The percentage of patients with stress urinary incontinence increased during the follow-up from 5% to 15%—but most of these patients were successfully treated postoperatively, Dr. Barber noted.

A major concern with uterosacral vaginal vault suspension is the proximity of the ureters to the uterosacral ligaments. Keep in mind that the higher you go up on the ligament, the stronger it is and the farther away from the ureters you will be, Dr. Barber said.

In another series of 700 consecutive patients who underwent vaginal surgeries for apical prolapse over the past 3 years at the Cleveland Clinic, 37 had no spill—suggesting ureteral obstruction—on cystoscopy with intravenous indigo carmine. Three of the 37 were found to have renal disease, and 2 additional patients had spill initially, but had delayed injury.

The overall intraoperative obstruction rate was 5.1%.

Uterosacral vaginal vault suspension was associated with a higher rate of ureteral obstruction (5.9%) than other procedures used in the series, including proximal McCall's culdoplasty (4.4%), distal McCall's culdoplasty (0.5%), and anterior repair (0.4%), Dr. Barber said at the meeting.

In 83% of the ureteral obstruction cases, the obstruction was relieved by intraoperative suture removal. The true ureteral injury rate was 0.9%, he said.

Due to the risk for ureteral injury with uterosacral vaginal vault suspension, intraoperative cystoscopy is a must.

"Cystoscopy is not perfect, but it is beneficial," he said, referring to the two cases of delayed diagnosis of obstruction in the 700-patient series.

When no flow is seen on cystoscopy, wait 10 minutes.

"At 8 or 9 minutes I start to worry," he said, noting that at this time he has a nurse recheck the patient's chart for history of urologic surgery such as nephrectomy.

"My partners and I have both been burned by this before," he added.

Next, check to be sure indigo carmine dye was actually used. Then consider furosemide (Lasix), and if this doesn't work, consider stent placement or fluoroscopy.

Still no flow? Then begin removing apical suspension sutures sequentially starting with those most distal, followed—if this doesn't work—by removal of the upper anterior repair sutures, he advised.

Reconsider stenting or fluoroscopy at this point if the obstruction remains, and when all else fails address the obstruction via laparotomy and reimplant, he said, noting that it reached this point in only 1 of the 700 patients. ■

Rectovaginal Fistulas Can Pose Treatment Challenges

BY SHARON WORCESTER
Tallahassee Bureau

FORT LAUDERDALE, FLA. — Obstetric trauma is the most common cause of rectovaginal fistulas, Eric G. Weiss, M.D., said at a symposium on pelvic floor disorders sponsored by the Cleveland Clinic Florida.

Reported series suggest such trauma accounts for 50%-90% of fistulas, said Dr. Weiss, director of surgical endoscopy and a staff colorectal surgeon at Cleveland Clinic Florida, Weston.

"We don't really have a good way to prevent these—it's just one of those things that can happen after delivery," he said, noting that such fistulas occur in fewer than 1% of vaginal deliveries.

But for such tiny holes—sometimes the size of a pinhole—these defects can lead to extensive symptoms, and can be very difficult to repair.

Rectovaginal fistulas associated with obstetric trauma usually are the result of unrecognized third- or fourth-degree perineal tears or repairs that break down as a result of infection or hematoma. Other causes include inflammatory bowel disease, infection, and other types of trauma, such as pelvic radiation therapy, Dr. Weiss noted.

A number of treatment options exist, but for simple fistulas—or those that are less than 2.5 cm in diameter, distal, surrounded by otherwise healthy tissue, and caused by trauma or infection—Dr. Weiss' treatment of choice is the transanal endorectal advancement flap.

Reported success rates for this type of advancement flap range from 41% to 100%, and the variation may be explained by differences in the way results are reported. For example, some studies include patients who also underwent sphincteroplasty, which would most likely improve results.

Patients with fistulas associated with obstetric trauma are more likely than other patients to also require sphincteroplasty. In his experience, success rates are generally in the range of 60%-65%, with higher success rates of up to 91% reported in those with an intact sphincter.

Other transanal surgical options include layered closure and the anocutaneous advancement flap, and transvaginal options include fistula inversion and vaginal flap advancement. Reported success rates for these approaches range from 72% to 100%, but findings are based mainly on very small case series.

Surgical failure is usually attributable to infection or hematoma. Prompt drainage and antibiotic therapy for infections may salvage the repair. When necessary, surgical correction can be reattempted, but success rates decline with each successive attempt, Dr. Weiss said.

Repeat surgery should be delayed until inflammation has resolved and the wounds have healed; patients with activity-limiting symptoms may require temporary diversion during this time.

One option for the repair of recurrent rectovaginal fistulas includes perineoproctotomy, which involves re-creation and repair (by closure in layers) of a third- or fourth-degree tear. Success rates are in the 88% to 100% range, and although a downside of this surgery is division of the sphincter muscle, there are no reports of postoperative incontinence in the literature, he noted.

For such tiny holes—sometimes the size of a pinhole—these defects can lead to extensive symptoms, and can be very difficult to repair.

Sphincteroplasty is the best option for those with sphincter injury. Success rates with this procedure also range from 88% to 100%.

Tissue interposition using the Martius procedure (bulbocavernosus interposition) and graciloplasty are other surgical options with reasonable success rates, he noted.

Complex fistulas—or those that are larger than 2.5 cm in diameter and caused by inflammatory bowel disease, malignancy, or radiation—are more difficult to treat, in part because patients often have complicating medical problems.

For high rectovaginal fistulas, transabdominal division of the fistula with resection and primary anastomosis is recommended. An alternative in patients with a normal rectum is division of the fistula and interposition of omentum or muscle.

Temporary diversion may be necessary in patients with a failed transabdominal surgery. If the fistula does not close spontaneously during diversion, repeat resection or interposition of the omentum is recommended, but few data are available to guide decision making regarding surgery in these patients, he said.

For radiation-induced complex fistulas, temporary diversion is usually performed first. Repair is appropriate when the patient is otherwise healthy and has no evidence of recurrent cancer. One option is coloanal anastomosis to bring in healthy tissue to replace the tissue devascularized as a result of the radiation. Other options are the Bricker on-lay patch and muscle interposition.

A number of surgeries, including transvaginal repairs, endorectal advancement flaps, and muscle interposition and resection, have been described in patients with Crohn's disease. Initial failure requires endoscopic evaluation. If proctitis is present, medical treatment or proctectomy are recommended, but if the rectum is not inflamed, a repeat repair may be successful, Dr. Weiss said. ■