

Vaginal Cerclage: Pelvic Organ Prolapse Option

This novel surgical procedure is proving effective in select patients with severe, refractory prolapse.

BY SHARON WORCESTER

EXPERT ANALYSIS FROM AN INTERNATIONAL PELVIC RECONSTRUCTIVE AND VAGINAL SURGERY CONFERENCE

ST. LOUIS – Vaginal cerclage, a novel surgical procedure for pelvic organ prolapse, is proving effective as a treatment option for severe and refractory prolapse in select patients.

Also known as introital cerclage, the procedure involves permanent suturing of the introitus, and is often performed in conjunction with vaginectomy. This obliterative approach is suitable only in those who are certain they no longer desire coital function, but on its own, vaginal cerclage also can serve as a bridge to nonobliterative repair, Dr. S. Robert Kovac and Dr. Carl W. Zimmerman said at the conference, which was sponsored by the Society of Pelvic Reconstructive Surgeons.

Dr. Kovac, the John D. Thompson Distinguished Professor of Gynecologic Surgery and director of the Emory Center for Reconstructive Pelvic Surgery at Emory University, Atlanta, used a video demonstration to show the surgical technique in an 82-year-old woman who had undergone two prior procedures for the treatment of prolapse, including a total abdominal hysterectomy followed by transvaginal repair with graft augmentation.

She presented with recurrent prolapse and complaints of vaginal bulge and discomfort, difficulty with voiding, and

recurrent urinary tract infections.

A decision was made to perform vaginectomy augmented by the placement of a simple introital cerclage.

Dr. Kovac adequately infiltrated the introitus with 0.5% Marcaine with epinephrine, then used nonabsorbable braided sterile polyester suture beginning at the 12 o'clock position. The suture was placed away from the mid-urethra and closer to the bladder neck to decrease the risk of de novo stress urinary incontinence.

Suture placement continued in a circumferential manner toward the 6 o'clock position in several steps, ending at the 7 o'clock position to minimize discomfort. The suture ends were cut and tied down to obliterate the vagina and reduce the prolapse, and the ends were buried under the skin to decrease discomfort.

The same approach was used in a 77-year-old patient who had undergone total abdominal hysterectomy and bilateral salpingo-oophorectomy, as well as multiple prior prolapse repairs, including transvaginal repair with graft augmentation, a pubic bone sling, and transvaginal enterocele repair with graft augmentation and repeat enterocele repair with colpopoiesis.

The patient presented with vaginal

bulge, pressure, discharge, defecation dysfunction, and abdominal pain; she was diagnosed with stage IV vaginal vault prolapse. As in the first patient, vaginectomy was performed and augmented by vaginal cerclage. The patient's vagina was obliterated, and her prolapse reduced with no change in urethral angle.

Both patients were doing well at 8 months' follow-up, Dr. Kovac said.

Vaginal cerclage is a simple and 'clever' procedure that can be accomplished in about 5 minutes, is reimbursed as colpopoiesis, and vastly improves patient comfort.

Dr. Kovac, who argued that vaginal cerclage is superior to the "very outdated" LeFort colpopoiesis procedure that's used in patients with severe prolapse who still have

their uterus, noted that the new technique also can be used as an intermediate procedure in certain patients awaiting nonobliterative prolapse repair.

For example, he described a patient with a significant prolapse who was unable to undergo surgery because of elevated creatinine. Vaginal cerclage allowed for temporary relief over the 8-9 days required for her creatinine levels to normalize.

"This approach provided improved comfort and quality of life, and reduced her hydronephrosis, which was causing the elevated creatinine, thus enabling her to undergo the full repair," he said.

Similarly, Dr. Zimmerman, professor of obstetrics and gynecology at Vanderbilt University in Nashville, Tenn., described a patient who was preparing to undergo liver transplant and was found

to have severe prolapse during a pelvic exam prior to surgery. Vaginal cerclage was used as a rescue procedure so that she could undergo the transplant surgery. The prolapse was reduced, the cerclage was placed, and the transplant was successful, he said.

Vaginal cerclage is a simple and "clever" procedure that can be accomplished in about 5 minutes, is reimbursed as a colpopoiesis, and vastly improves patient comfort, Dr. Kovac said.

"It has great advantages, and we're doing it routinely today on select patients who come in with recurrent prolapse after multiple attempts at correctional surgery – with excellent results."

The availability of such a technique is important because, typically, the repair used for a failed colpopoiesis is a repeat colpopoiesis.

Also, an increase in patients who seek treatment is anticipated, given that U.S. Census data indicate that the number of adults older than age 65 is expected to reach 90 million by 2050, and that 30%-50% of women experience prolapse in their lifetime, 11% undergo surgery for prolapse, and a third of prolapse and incontinence surgeries are for recurrent prolapse.

Improved techniques are needed, particularly in light of the high rate of repeat repairs, Dr. Kovac said. ■

Disclosures: Dr. Kovac disclosed that he is a consultant for Cook Medical Inc. and Ethicon Endo-Surgery Inc. 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.

Pubic Bone Stabilization Slings Don't Cause Osteomyelitis

BY SHARON WORCESTER

EXPERT ANALYSIS FROM AN INTERNATIONAL PELVIC RECONSTRUCTIVE AND VAGINAL SURGERY CONFERENCE

ST. LOUIS – Treatment of urinary incontinence by means of a pubic bone stabilization sling – a suburethral sling that is anchored to the pubic bone using titanium screws – is highly effective and is not associated with an increased risk of osteomyelitis, according to findings from the largest prospective observational study to date.

Although concerns that the procedure could cause osseous complications have been circulating for years and have discouraged some surgeons from using the pubic bone stabilization sling, only 1 case occurred in the 2,331 patients in the study, for an incidence of 0.00043%, Dr. S. Robert Kovac reported at

the conference, which was sponsored by the Society of Pelvic Reconstructive Surgeons.

Patients were treated for intrinsic sphincter dysfunction (ISD) and/or stress urinary incontinence (SUI), and were followed for a mean of 13 years, and up to 17 years at four different institutions, said Dr. Kovac, the John D. Thompson Distinguished Professor of Gynecologic Surgery and director of the center for pelvic reconstructive surgery and urogynecology at Emory University, Atlanta. His associates are Dr. P.D. Dietz, Dr. M. Muniz, and Dr. S.H. Cruikshank.

Follow-up was done by exams, questionnaires, and telephone conversations.

The cure rate for those with ISD and/or SUI who had total dryness was 92%.

In a prospective study published in 2004, the incidence of osteomyelitis was 0.08% in

1,228 patients who underwent transvaginal bone anchor fixation in female pelvic reconstructive surgery, Dr. Kovac noted (*Urology* 2004;64:669-74).

By comparison, abdominal sacrocolpopexy is associated with an osteomyelitis incidence of 11%, according to reports in the literature, Dr. Kovac said.

"I think we got off on the wrong track," he said of the unfounded fears regarding osteomyelitis in patients undergoing pubic bone stabilization (PBS) sling procedures.

Dr. Kovac, who developed the PBS sling procedure more than 20 years ago, said that more than 350,000 have been performed worldwide, and that in all that time he hasn't seen a single case of osteomyelitis or osteitis pubis in any of his patients who underwent the procedure.

Furthermore, the PBS sling has the lowest complication rate and the best long-term out-

comes of the various suburethral slings currently used for urinary incontinence, he said.

Currently, the procedure is performed transvaginally by placing a suburethral sling of Biodesign Surgisis over the midurethra, and securing it with titanium bone screws to the posterior-inferior pubis to restore proper anatomy for continence.

In addition to the high cure rate and low complication rate, the approach has several other advantages, Dr. Kovac said, including the following:

- ▶ It is a totally vaginal, unified approach; all defects can be treated during one procedure.

- ▶ There is efficacy for both urethral hypermobility and ISD-related SUI.

- ▶ It functions as a retropubic procedure, a vaginal Marshall-Marchetti-Krantz (MMK) operation without the need for an abdominal incision.

- ▶ It is easy to learn and teach.

- ▶ There is low or no pain.

- ▶ There is rapid return to normal voiding postoperatively.

- ▶ There is no need for blindly placed trocars.

- ▶ Surgical time is less than 30 minutes.

- ▶ There is no need for mesh, so there are no mesh-related complications.

- ▶ There is no voiding dysfunction; it is truly tension free.

The procedure also has little reliance on cystoscopy, although Dr. Kovac said that he recommends cystoscopy all patients to avoid potential bladder-related hazards. ■

Disclosures: Dr. Kovac disclosed that he is a consultant for Cook Medical Inc. and Ethicon-Endo Surgery Inc., but he sold his patent on the PBS sling to American Medical Systems and has no financial interest in the procedure.