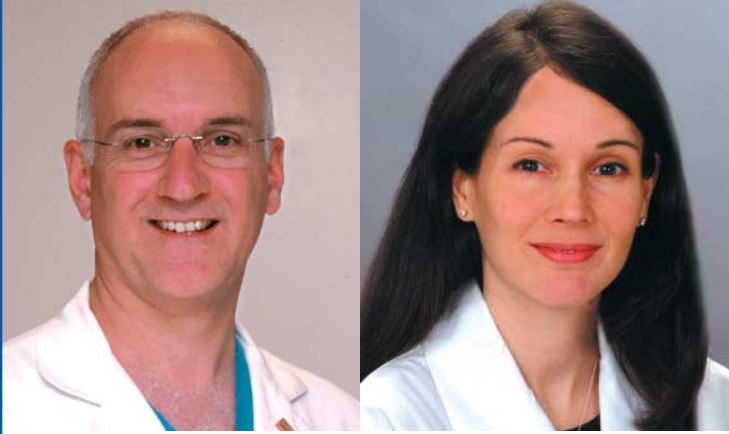


Contemporary Medicine

UTERINE FIBROID TUMORS

Innovative Procedure for Removing Uterine Fibroid Tumors Can Help Women Avoid More Extensive Surgery



Joseph Bonn, MD; Carin Gonsalves, MD

For years women with uterine fibroids, benign tumors of smooth muscle, have had to undergo hysterectomies or other surgical procedures to remove the fibroids, procedures that could be painful, leave scars and doubts about their future fertility.

Now, doctors at Thomas Jefferson University Hospital are helping change the outlook for women with painful fibroids. They are using a procedure called uterine fibroid embolization, which blocks the arteries feeding blood to the fibroids, choking their growth. In the last five years, Jefferson physicians have treated nearly 400 women with the procedure.

Fibroids Can Cause Serious Symptoms

"While benign, fibroids can cause abnormal bleeding and pelvic pain, and may be a cause of infertility and repeated miscarriage," says Joseph Bonn, MD, Associate Professor of Radiology at Jefferson Medical College of Thomas Jefferson University and Director of the Division of Cardiovascular and Interventional Radiology at Thomas Jefferson University Hospital. "Some women cannot work a normal workday because of the pain and the disruption of heavy menstrual bleeding. It can be incapacitating." Each year, more than 175,000 women in the United States have hysterectomies because of uterine fibroids.

The Procedure

In uterine fibroid embolization, doctors thread a catheter through the femoral artery and into the uterine arteries, Dr. Bonn explains. A mixture of medical plastic particles and X-ray dye is injected into the arteries through the catheter, traveling downstream and plugging up the blood vessels feeding the fibroids. The procedure takes about an hour and a half and is performed under conscious sedation rather than general anesthesia through a band-aid type skin puncture. Fewer than 5 percent of patients are admitted overnight, and the vast majority goes home the same day as the procedure. Recovery requires about a week off from work.

Embolization isn't a new procedure. Doctors have been treating gynecologic problems this way for years, including fibroids with uncontrollable bleeding, uterine malignancies, pelvic trauma, fractures, and vaginal deliveries that cause cervical tears.

Uterine embolization for fibroids was first performed electively in Europe about a decade ago and in this country several years later. "This technique is essentially the same as that used to control bleeding that occurs after birth or pelvic fracture, or bleeding caused by malignant tumors," says Dr. Bonn.

Benign fibroids occur in 20 percent to 25 percent of women of childbearing age, although most women do not have any symptoms until their late 30s or 40s. Approximately one-quarter to one-half do not have symptoms at all, Dr. Bonn says. African-Americans are as much as three times as likely to develop uterine fibroids as are Caucasians.

Symptoms Signaling Fibroids

Symptoms include excessive menstrual bleeding, anemia, pain, and pressure on the bladder, colon and nerves of the lower back, constipation and urinary frequency. Fibroids can hinder efforts to become pregnant, and cause miscarriages.

Supporting research suggesting their development depends on hormones (primarily estrogen), fibroids begin with the onset of menstruation. Fibroids disappear with menopause.

Traditional Surgical Approaches

Traditionally, fibroids have been removed surgically by either: hysterectomy or myomectomy, Dr. Bonn says.

While a hysterectomy calls for an incision in the lower abdomen or pelvis or removal of the uterus through a vaginal incision, newer techniques may use a combination of laparoscopy and a vaginal incision. A hysterectomy carries a 15 percent to 38 percent risk of postoperative fever, as well as a less than 2 percent risk of post-operative bleeding and injury to a nearby pelvic organ.

A myomectomy removes fibroids while leaving the rest of the uterus in place. The procedure may be performed with traditional pelvic incisions, by

laparoscopy, and by a combination of laparoscopy and hysteroscopy, in which a fiber-optic scope is placed into the uterus through the vagina and the cervix to remove fibroids. Larger submucous fibroids can sometimes be completely or partially removed with a hysteroscopic device that shaves off pieces of tissue.

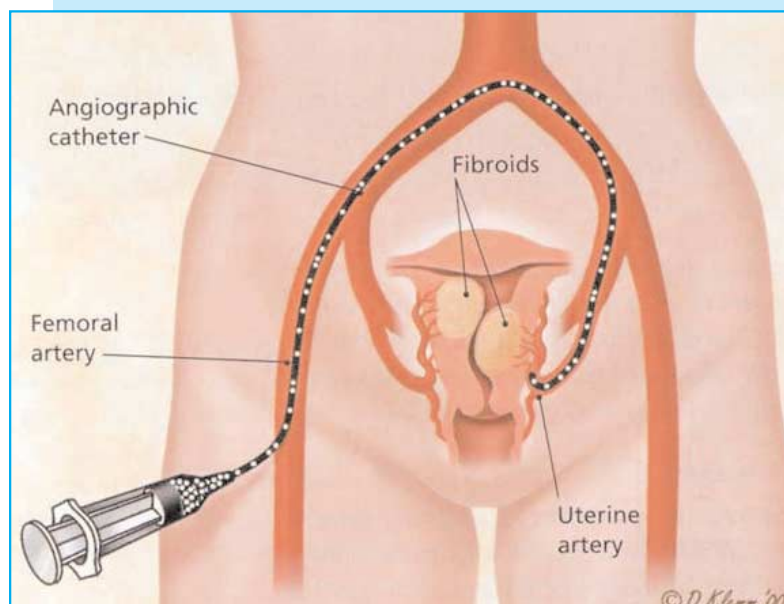
Myomectomy, which usually should not affect a woman becoming pregnant, controls symptoms in about 80 percent of women, though it misses smaller fibroids, which continue to grow. Between 10 percent to 30 percent of these fibroids return, Dr. Bonn says. Myomectomy can also cause extensive pelvic scarring, which may make future surgery very difficult and lead to future fertility problems.

Candidates for Uterine Fibroid Embolization

According to Dr. Bonn, those individuals who may have symptomatic fibroids without any other gynecologic problems and who do not want an alternative treatment may be eligible for uterine fibroid embolization. Also, patients with adenomyosis (a condition of the uterine lining that also causes excessive bleeding) may be eligible as well.

Dr. Bonn and Carin Gonsalves, MD, Assistant Professor of Radiology at Jefferson Medical College, will demonstrate uterine fibroid embolization during a live webcast on Thursday, November 13 at 4:30 p.m. from Jefferson University Hospital. To access the live, 60-minute webcast, go to www.JeffersonHospital.org/webcast or www.discoveryhealth.com. A replay version will be available at those sites beginning November 14 along with Jefferson's complete library of webcast procedures. Physicians who wish to discuss a case or refer a patient to Jefferson's Division of Cardiovascular and Interventional Radiology should call 215-955-0215.

For more information or to make an appointment, please call 1-800-JEFF-NOW.



Working through a small incision in the groin, interventional radiologists can thread a catheter through the pelvic vessels to inject particles into both right and left uterine arteries and "embolize" symptomatic uterine fibroids.