The entire range of gynecological surgery has really been touched by robotics,” says Arnold P. Advincula, MD, Vice Chair, Women’s Health, and Chief of Gynecology at the Sloane Hospital for Women at NewYork-Presbyterian/Columbia University Medical Center. “But what is the role of robotics with regard to endometriosis surgery or resection? Clearly there is difficulty managing this disease surgically, which is why there is a lot of interest in using robotic surgery. But the approach is not without controversy. We need to be responsible in how we shepherd in robotic technology for endometriosis.”

As an internationally recognized leader in minimally invasive gynecologic surgery and a pioneer in the use of state-of-the-art robotic technology for advanced pelvic surgery, Dr. Advincula has extensive experience treating complex and challenging cases of endometriosis. According to Dr. Advincula, treatment for endometriosis can be quite complicated, especially when it is the deep infiltrating type or when chronic pain and/or infertility are involved. Symptoms of deep infiltrating endometriosis manifesting as blood in the stools or rectal bleeding can be overlooked during the time a woman has her period and as a result a greater problem goes undiagnosed.

“The most advanced minimally invasive surgical option for treating endometriosis is robotic-assisted surgery,” says Dr. Advincula. “Yet there’s a belief that in order to treat endometriosis quickly, a..."
Mammography Screening: What’s a Woman to Do? (continued from page 1)

manage the choice of when to start and how often to have screening mammograms.

“The mammogram decision making process is complicated by the fact that most women overestimate their own risk of breast cancer and the benefit of mammograms,” says Dr. Polaneczky. “Some women actually believe having a mammogram will prevent breast cancer. So asking clinicians to help patients make an informed choice about mammogram screening puts a huge onus on that clinician to be sure his or her patient is educated about her options. That’s more than most clinicians have the time or resources to accomplish.”

Drs. Polaneczky and Elkin developed the decision aid (DA) – called Breast Screening Decisions (BSD) – to be used by women in their 40s and their providers in making decisions about when to start and how often to have screening mammograms. Members of the DA development team included physicians in oncology, gynecology, internal medicine, and breast radiology, as well as outcomes researchers. They modeled BSD on the Ottawa Decision Support Framework, incorporating individualized breast cancer risk assessment using the NCI Breast Cancer Risk Assessment Tool.

Benefit to the Patient

“Unlike many decision aids that are more general, BSD actually allows the woman to calculate her own breast cancer risk using a tool based on the Gail Model, which is an evidence-based tool for determining your risk of breast cancer in the next five years,” says Dr. Polaneczky. “The decision aid is designed for women at average to low risk for breast cancer. There isn’t much choice that women who have high risk need to make. They just need to get their mammograms done. But the women at lower risk do have a choice. This is to help these women decide what to do.”

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For women at low to average risk of breast cancer, Breast Screening Decisions reviews the screening schedules currently being offered. “As they go through the decision aid they’ll see what the potential benefits and harms are of mammography,” notes Dr. Polaneczky. “That's often quite a wake-up call for many women who have unrealistic expectations about what a mammogram can actually do.”

The Breast Screening Decisions tool, which takes about 10 minutes to complete, imparts information using visual, interactive graphics and text that is designed at an eighth grade reading level. Alpha testing was performed with target clinicians and female volunteers in the target age group. The investigators modified the site based on their feedback. The final decision aid was then evaluated using the International Patient Decision Aids Standards Criteria for DA content and development.

Dr. Margaret M. Polaneczky

“What’s really important for us is that women move through BSD in a way that builds and educates them,” says Dr. Polaneczky. “The last piece of the aid helps to clarify their personal values and concerns. A woman can then print it out and bring it to her preventive care visit.”

Value to the Practitioner

The process is also helpful to the practitioner, explains Dr. Polaneczky, by potentially reducing the amount of time spent in the already too short office visit discussing screening mammograms. “If her clinician knows that the patient has used a decision aid, then time does not have to be spent on educating and dispelling myths, but can instead focus on clarifying what's important to the patient and being sure she chooses the option that is best for her,” notes Dr. Polaneczky.

Use of a decision aid could reduce medicolegal concerns that clinicians may have when their patients opt not to have screening mammograms. “The doctor will then know what the patient has seen and read and the printout can even be put into her medical record,” she adds.

Drs. Polaneczky and Elkin recently completed a field test of the site to assess its feasibility, as well as the impact on the uptake of screening mammography, women’s knowledge and anxiety about screening mammography, and their decision satisfaction and decisional conflict. The researchers concluded that BSD meets 25 of the 27 International Patient Decision Aids Standards content criteria and 16 of 18 relevant development process criteria. They are now amassing data on the more than 100 women who have used the site, and are also refining and preparing for its live launch scheduled for fall 2014.

“In addition, we are surveying the participating physicians who have all expressed a strong desire in having it available in their practices,” says Dr. Polaneczky. “There is a crying need for a tool like this for patients and physicians alike. People really want it.”

The BSD project was funded by the National Institutes of Health through a Weill Cornell Medical College Clinical and Translational Science Center grant.

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Robotics and the Management of Severe Endometriosis (continued from page 1)

surgeon has to be able to feel it; robotic surgery doesn’t provide the tactile feedback of traditional laparoscopy and open surgery. However, the advantages of robotic surgery — 3-D visualization that gives a clear view of the operative field, its fine instrumentation, and the maneuverability of the instruments — enable us to be more accurate and aggressive, including safely and effectively performing a colorectal resection if necessary.”

Deep infiltrating endometriosis (DIE) is considered one of the most aggressive and complicated forms of endometriosis, with the potential to invade the vagina, bladder, bowel, and/or ureter. Deep infiltrating pelvic endometriosis with bowel involvement, which is estimated to occur in 5.3 to 12 percent of women with endometriosis, can lead to infertility, chronic pelvic pain, and dyschezia.

In a multicenter international study with programs in Brazil, Dr. Advincula and his colleagues evaluated the feasibility of robotic-assisted colorectal resection for deep infiltrating colorectal endometriosis. They looked at the short-term complications, clinical and fertility outcomes, long-term follow-up, and pain relief recurrence rate in 10 women with colorectal endometriosis who underwent surgery with the da Vinci Robotic Surgical System over a three-year period. Their initial findings indicate “the use of robotic assistance provided a very precise dissection of the pelvic area, allowing good visualization of the pelvic plexus nerves, thus providing resection without nerve injury.”

“In addition, the data showed very good results with regard to pain relief, bowel symptoms, which had significant improvement, and the desire to conceive,” notes Dr. Advincula, who cautions that a larger volume study and longer-term follow-up are needed to confirm their findings and to better understand the role of robotics in deep infiltrating endometriosis. “While you can tackle endometriosis with robotic technology, understanding the surgical dissection, how the pathology will behave, and if it is the right patient, right indication, with the right surgeon, are all crucial in the decision to use robotics.”

"The gynecological team at the Center for Endometriosis Treatment and Research has relationships with urology, colorectal surgery, radiology, and other disciplines at NewYork-Presbyterian/Columbia so that we can develop a comprehensive and coordinated plan to manage each patient’s particular situation. Even when patients require surgery, we need to continue to treat the endometriosis. So our program is committed to advancing both the medical and surgical management for this chronic disease.”

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Included in these efforts is the Center’s participation in the second phase of SOLSTICE — a major clinical trial of an investigation drug for treating moderate to severe endometriosis pain symptoms. Overseen by Jeannie Kim, MD, in the Division of Gynecologic Specialty Surgery, the SOLSTICE study involves 200 centers across the country with an expected enrollment of 800 women.

Dr. Advincula’s team also works closely with Columbia’s Center for Women’s Reproductive Care in the treatment of patients with infertility problems who present with endometriomas. “These are patients who want to get pregnant; they don’t want to lose their ovary,” says Dr. Advincula. “We do the surgical treatment for the endometriosis, as well as help to control their pain, and then they return to the Center for Women’s Reproductive Care for fertility treatment. We have created a ‘fast pass’ process that is essential with fertility issues because the window of opportunity is often limited. The close collaboration that exists between our two centers expedites the care and management of these patients.”

Dr. Arnold Advincula removes a 13 centimeter endometrioma robotically, making it possible to preserve the patient’s ovary.

Reference Articles


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