Endoscopic spine surgery — a new and growing field

Dr. Jeffrey Roh says he and his colleagues at Swedish specialize in "endoscopic" spine surgery — a new and growing field. During endoscopic spine surgery, a surgeon accesses the spine through a series of tubes placed through an incision about the diameter of a U.S. penny. The tube creates a sort of tunnel to the affected area of the spine through which the surgeon can work. The process means less tissue dissection and reduced muscle trauma. Endoscopic spine surgery can generally be performed on an outpatient basis. Patients may also experience less pain and have a faster recovery, which can also mean lower usage of pain medication.

One of the primary uses of this technique is in disc herniation of the lumbar region (as is discussed in the case study). As imaging technology continues to advance, and as specialists gain more and more experience with the procedure, a Transient Ischemic Attack or TIA stroke is often called a mini stroke, but that phrase can contradict the seriousness of the condition. Patients should look for drooping face, arm weakness and speech difficulty — the same symptoms they might see in any stroke.

People generally have no neurological deficits after a TIA stroke, but it is often a warning sign of a more serious stroke to come. We have no way of knowing how many patients ignore a TIA, but for those who go to the emergency room, their symptoms will resolve by the time they reach the hospital. In fact, a TIA may look like any other stroke except for the resolution of symptoms. The danger is in thinking the risk is over when the symptoms disappear.

Some TIA patients are high-risk and need immediate hospitalization. However, many are at lower risk and may not need hospitalization. Dr. Lily Henson, neurologist at Swedish, noticed both groups were treated the same way. Dr. Henson says, "Traditionally, we have admitted those patients, done testing, and tried to find a cause of the TIA, and then we discharge them." For lower risk
Case study: Endoscopic spine surgery

Jeffrey Roh, M.D., MBA, MSc, director of minimally invasive spine surgery

A 20 year-old math student at the University of Washington presented to the Swedish Neuroscience Institute with complaints of low back pain with radiation to his left lower extremity. Workup including an MRI of the patient’s lumbar spine confirmed the presence of a large left-sided paracentral disc herniation with resultant impingement of his traversing nerve roots.

The patient’s symptoms were exacerbated by activity, bending forward and sitting. His pain, however, continued to progressively worsen. He started physical therapy and participated for about three to four months without lasting benefit and attempted NSAIDs, oral steroids and an epidural steroid injection without significant relief of his sciatic symptoms.

He was indicated for and underwent a minimally invasive, outpatient endoscopic microdiscectomy in September of 2019, tolerated the procedure without any issues, and was discharged to his home the same day of his surgical procedure. The patient reported near complete relief of his left leg pain immediately after surgery and was found to be doing exceptionally well. He was able to tolerate a standard physical therapy routine one month following his surgery and returned back to all of his normal activities within two months of his minimally invasive spinal procedure.
patients, their health situation is crucial but not necessarily urgent. To address this issue, Dr. Henson has created a clinic specifically devoted to treating patients with TIA stroke.

When patients initially present in the ER with TIA, Dr. Henson uses their ABCD2 score to determine risk level. The score is calculated by looking at the patient’s age, blood pressure, clinical features, duration of symptoms, and whether they have diabetes. If the patient has an ABCD2 score less than four, they are deemed low-risk and are given an initial workup in the ER, followed by a visit to the new TIA stroke clinic. “At the clinic, we can finish up testing, get the patient on the right therapy, and help the patient understand what lifestyle changes they need to make,” says Dr. Henson.

**Preventing the next stroke**

The purpose of the clinic is to help people prevent the next stroke. There is a 20 percent risk a patient will have another TIA within the first 90 days after an initial episode and 20 percent risk of a more significant stroke within a year. For these reasons, it is essential to get patients on a treatment plan. “And what we’ve done is ensure that the patient can be seen the next business day in the clinic,” says Dr. Henson.

The clinic opened in November 2019 at Swedish Cherry Hill. For more information on the clinic, call or visit: Swedish Neuroscience Specialists – Stroke and TIA Clinic Cherry Hill campus – James Tower 550 17th Ave., Suite 400 Seattle, WA 98122 Clinic: 206-320-3278 Fax: 425-394-0578

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**A prosthetic solution to erectile dysfunction**

Dr. James Kuan is a sexual medicine/prosthetic urologist at Swedish. His practice focuses on improving quality of life for men, whether that means helping with urinary incontinence or addressing sexual issues after prostate cancer treatment.

One of the issues Dr. Kuan sees frequently in his practice is erectile dysfunction (ED). He treats ED with conventional methods like prescription medications, but he also offers penile implants. Penile implants (penis pumps) provide a permanent solution to ED when other treatments have been unsuccessful. This small device allows a man with ED to experience an erection where and when he wants. The implant used most commonly by Dr. Kuan is a three-piece device that includes two cylinders inserted into the penis, a pump that is placed in the scrotum, and a fluid-filled container in the abdomen. The devices are antibiotic coated, which makes them safer for men with diabetes. The best candidates for penile implants are often men who have ED due to a specific medical problem (for example, prostate cancer treatment).

Around 70 percent of devices last for 10 years and patient satisfaction rates are high. A study published in the *Korean Journal of Urology* cited a satisfaction rate of 86 percent.¹

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¹. (continued on page 4)
A prosthetic solution to erectile dysfunction
(continued from page 3)

Prosthetics available for additional men’s health issues

Other urology prosthetics are available to treat additional men’s health issues including an artificial urinary sphincter to address incontinence and prosthetic testicles. Choosing an implant can have a huge impact on quality of life, self-esteem and confidence for a man.

Dr. Kuan is a subspecialty-trained reconstructive urologist, which includes prosthetics. He is one of the most experienced implanters in the Pacific Northwest, performing both straightforward and complex procedures. He wants people to know that ED can impact men of any age, profession or ZIP code. In fact, more than 30 million men — and up to 50 percent of all men ages 40-70 in the United States — experience ED.

Dr. Kuan says, “Sadly, many men are never told that options exist to treat these problems.” His work is to help men live better, more full lives and also feel comfortable discussing these issues with their providers.

To refer to Swedish, visit www.swedish.org/services/urology.

Almost every hysterectomy can be minimally invasive

According to Dr. Brooke Winner, gynecologist at Swedish, “Almost every hysterectomy nowadays can be minimally invasive.”

Traditionally, hysterectomies have been performed using a big incision, resulting in a C-section type scar. Today, there are several methods that offer much easier recovery, including laparoscopic surgery, a robotic procedure, which uses a camera and small incisions, and a procedure that goes in through the vagina. These methods involve less pain and lower chances of complications like infection and blood clots.

Most gynecologists can perform an uncomplicated hysterectomy using minimally invasive procedures.

Dr. Winner is a specialist in minimally invasive techniques for complicated cases because it is her exclusive focus. She is able to use these methods even in cases where the patient is impacted by uterine cancer or has an enlarged uterus.

The most common reason Dr. Winner sees women for hysterectomy is uterine fibroids. Another prevalent reason is endometriosis. Dr. Winner finds that many people wrongly assume a hysterectomy means removing the ovaries along with the uterus — but, often, ovary removal is not necessary. She says, “The ovaries produce a woman’s hormones and those can be left in place.” After a hysterectomy, a woman would not be able to get pregnant, but she might still have periods.

Should the cervix be removed?

One debate in the field has been whether to remove a woman’s cervix with the uterus. Through following and conducting research, Dr. Winner has found removal of the cervix has no impact on a woman’s sexual function. Leaving the cervix in place can lead to mini periods, and it’s always possible a woman will test abnormal at a pap smear down the road. Because of these factors, Dr. Winner recommends removal of the cervix.

There should be minimal impact on a woman’s life after the procedure. Dr. Winner explains, “The length of the vagina stays the same. Vaginal lubrication stays the same. Ability to have an orgasm stays the same. That’s all related to the hormones and the ovaries and not to the uterus or cervix.” In addition, a minimally invasive procedure can be done as an outpatient procedure, and women are typically back to work in two to three weeks.

Dr. Winner encourages OB/GYNs to refer to experts like her when they have a hysterectomy that they are uncomfortable performing in a minimally invasive manner.

To refer or consult on a patient, call 206-991-2000.

Brooke Winner, M.D.

Essential tremor is treatable

It is estimated that 8 million people in the U.S. have essential tremor. Frequently, the condition is mistaken for Parkinson’s disease. “Essential tremor is basically a tremor of the hands and maybe the head and voice, whereas Parkinson’s disease is a progressive neurodegenerative condition that can have tremor as part of its symptoms,” says Dr. Pravin Khemani, neurologist and movement disorders specialist at Swedish.

That’s not to say essential tremor is not serious. “It can cause a lot of disability due to the tremor itself,” Dr. Khemani says. The disease interferes with just about everything you do with your hands — from opening a bottle of medication to cooking dinner. Dr. Khemani also points out, “About 25 percent of people can have both essential tremor and Parkinson disease, which can make the diagnosis challenging.”

Emerging treatments for essential tremor

Treatment is also a challenge, but there are technologies that offer promise. Medication is one option, but many essential tremor patients are elderly and may already be prescribed a variety of pills, complicating use of medication. Focused ultrasound is another option. In this procedure, a focused section of brain tissue believed to be causing the tremor is destroyed. Dr. Khemani says they usually target the thalamus. “And you can see an almost instantaneous improvement of the tremor in the operating suite,” he says. Focused ultrasound is noninvasive, requiring no incisions in the scalp, and offers a low risk of infection and blood-clot development. Deep-brain-stimulation (DBS) surgery is still “the gold standard treatment,” according to Dr. Khemani. In DBS, electrodes stimulate the thalamus, helping to deactivate it and, therefore, limiting uncontrollable movements for about 90 percent of patients. DBS alleviates symptoms for the majority of patients who undergo the procedure, but not all patients are candidates for DBS surgery, and it does have a higher risk of infection.

Dr. Khemani and his colleague Dr. Ryder Gwinn, neurosurgeon, have also conducted research on the newest essential tremor treatment, the Cala bracelet. (The Cala One received FDA approval in 2018). The bracelet stimulates the wrist, much the same way a pacemaker stimulates the heart. “It disrupts the tremor circuit, and it can calm tremors down,” Dr. Khemani explains. The bracelet does not offer a permanent fix but is potentially a good solution for people who want 50 to 60 percent improvement for a few hours a day — to go to dinner or play an instrument.

Essential tremor is treatable, but there is not one treatment that works for everyone. There needs to be a conversation between each patient and a movement specialist to decide how best to restore quality of life. Also because many tremor patients are older, they may have a variety of other health issues. The work is “determining which treatment is best suited for the patient based upon their existing medical conditions,” according to Dr. Khemani.

For more information on treatment options for essential tremor, or to refer a patient, call 206-320-5331.
New advancements in the treatment of hernias allow many to be treated by robotic or laparoscopic surgery. Swedish is utilizing both techniques with a group of specially trained surgeons who are dedicated to treating complex cases. Director of the new group, Dr. Aileen Hwang notes, “This is one of the fastest areas of growth in general surgery in the last five years.”

Both minimally invasive and robotic surgeries have the benefit of allowing patients to return to their daily lives more quickly with faster recovery times and lower usage of pain medication. Robotic surgery allows for greater degrees of flexibility and more range of motion (90 degrees) than are possible with the human wrist. Instead of one large incision — as is done in a traditional, open surgery — several small incisions are made. With laparoscopic surgery, similar small incisions are made using the aid of a camera.

Many general surgeons are comfortable performing minimally invasive hernia repair in non-complicated cases. The specialty of Dr. Hwang and her colleagues, Dr. Matt Johnston and Dr. Eric Heinberg, is to offer these newer procedures in more challenging cases. Dr. Hwang says, "We have a specialized group of surgeons who are expert in handling these complex procedures and are dedicated to addressing these issues as new techniques and technologies arise.”

There are several reasons that hernias might become more complex. These reasons include being secondary to prior incisions, containing bowel, being so large that they have a phenomenon called “loss of domain” where it is difficult to re-establish abdominal integrity, which can be a result of multiple prior hernia repairs so options for repair techniques become limited. In these situations, Dr. Hwang recommends patients are referred to a specialty surgeon.

Taking a multidisciplinary approach to care

The surgeons take a multidisciplinary approach to care, coordinating with radiologists, bariatric surgeons and plastic surgeons when necessary. As part of the commitment to providing evidence-based medicine, the providers are part of the American Hernia Society Quality Collaborative, which is a national database specifically for abdominal wall hernias, and it allows tracking of each surgeon’s outcomes with the option to compare against national trends.

The specialty hernia surgical group launched at the Swedish Issaquah campus and is currently expanding to the First Hill campus. “The goal of this specialty team is to be collaborative across all of Swedish,” Dr. Hwang says.

To refer or consult on a patient, call: 425-313-7124
Sexuality is part of medicine

“I tell people there’s nothing wrong with them; they’re not broken,” says Dr. Ashley Fuller, gynecologist at Swedish. There can be shame and discomfort with discussing sexual health. “Sexuality is a part of medicine. It’s a part of human biology,” Dr. Fuller says.

In June of 2019, Dr. Fuller stopped practicing obstetrics. She decided to focus exclusively on sexual health and pelvic dysfunction. She explains the shift, “When patients would bring up low libido in an annual exam, it often made me sad. Our 20-minute annual visits don’t afford the amount of time needed to adequately address these types of issues.”

There is not one right answer

The definition of menopause is a year without a period, but according to Dr. Fuller, that doesn’t mean a woman has not experienced hormone issues before menopause, sometimes even years before: “I often see patients in my office that can’t sleep at night because they have night sweats. During the day, they can’t concentrate anymore, they have brain fog, or they feel like they cry every day or have emotional instability.”

For Dr. Fuller, there is not one right answer to these problems. “I used to talk to them about perimenopause and menopause and hormone replacement therapy, but I also talk to them about antidepressants. Because it’s hard to know what the root cause is for all of this,” she says.

She also likes to ask women about their sex lives because low libido and/or sexual pain is “super, super common,” according to Fuller. Dr. Fuller has advice on specific language for providers who want to begin conversations about sex. “I usually ask ‘Who do you have sex with?’ because that’s the most inclusive of multiple partners, different sex partners. Then I ask if they have any concerns about their sex life.” In Dr. Fuller’s experience, patients are often scared they will be judged for bringing up sex, so it’s important to make them feel comfortable and to normalize the conversation.

“People don’t realize how many muscles are in the pelvis”

Dr. Fuller sees a lot of vulvodynia and vestibulodynia, meaning women can experience specific spots of somewhat chronic pain on the vulva or the opening of the vagina, which can cause painful sex or result in a generalized, constant daily pain,” she says. Patients may come into her office thinking they have abdominal pain, but really, it is pelvic pain that is radiating upwards. In these cases, she may send her patients to a pelvic floor physical therapist or to biofeedback. “I think a lot of people don’t realize how many muscles there are in the pelvis and how it really affects how you walk, how you sit, but also how you have sex,” she says.

The work may be complicated and nuanced to treat, but according to Dr. Fuller, “It’s so great when you see people get better and conquer these issues. It can be really rewarding.”

Swedish OB/GYN Specialists – First Hill campus
1101 Madison St., Suite 700
Seattle, WA 98104
Phone: 206-215-6300
Swedish Quick Reference

1-800-SWEDISH
swedish.org
Referral Services: 1-855-448-8094

**Ballard**
5300 Tallman Ave. NW
Seattle, WA 98107

**Cherry Hill**
500 17th Ave.
Seattle, WA 98122

**Edmonds**
21601 76th Ave. W.
Edmonds, WA 98026

**First Hill**
747 Broadway
Seattle, WA 98122

**Issaquah**
751 NE Blakely Drive
Issaquah, WA 98029

**Mill Creek**
13020 Meridian Ave. S.
Everett, WA 98208

**Redmond**
18100 NE Union Hill Road
Redmond, WA 98052

**Swedish Medical Group**
800 Fifth Ave., Suite 800
Seattle, WA 98104

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