cutting edge

Surgical capabilities

by Donna Barton

The human body is complex and often requires complex measures to maintain it and keep it healthy. Fortunately when those measures involve surgery, CoxHealth is prepared with surgeons who are trained in the most upto-date procedures, which means patients require less time in the hospital, have quicker overall recoveries and improved quality of life.

Interventional bronchoscopy

A small, hollow tube with mesh wires is making a dramatic difference in the lives of patients with breathing problems – especially for those with airway constriction caused by tumors. Placing a stent in the bronchial tubes to hold open the airway is a relatively new procedure that is usually only performed in academic hospitals. Dr. Terry Coulter, a Ferrell-Duncan pulmonologist with special training in interventional bronchoscopy, began employing this procedure at CoxHealth in July 2000.

The procedure, which can be done on an outpatient basis, is performed under general anesthesia and involves a tube-like device called a bronchoscope that allows surgeons to see the airway and determine the correct size stent. A guide wire is passed through the bronchoscope to the lungs. The stent then passes over the guide wire and is deployed to the desired location. The entire process can take as little as 10 minutes and often provides immediate relief to the patient.

"Before this procedure there was little that could be done to help these patients," Coulter says. "It is rewarding to know that there is an advancement that helps people who felt like they were suffocating be able to breath again."

The procedure takes highly specialized training to perform and only certain patients are candidates for the surgery, Coulter says. Bronchial stents are life extending, not a curative treatment.

Laparoscopic nephrectomy Advances in technology, as well as the per-

Advances in technology, as well as the persistence and determination of physicians like Ferrell-Duncan urologist Howard Follis, have paved the way for removal of solid organs like the kidney through a laparoscope.

The laparoscope, an instrument that can be inserted through a small incision that allows surgeons access to areas of the body without the need for more invasive techniques or large openings, has become a mainstay for gallbladder removal and gynecological procedures. But until now many physicians considered it unsuitable for kidney removal due to the size, shape and composition of the organ. Conventional kidney surgery requires a 12-inch or longer incision under the rib cage, a minimum two-week hospital stay and a couple of months before patients are able to return to normal activity. But with the laparoscope the kidney is removed through a smaller opening in the abdomen, which means patients have less pain, spend less time in the hospital and are able to return to normal activities and work in one to two weeks.

Follis, who brought the procedure to CoxHealth in January 2002, believes that even though the procedure is time consuming to learn and difficult to perform, laparoscopic kidney removal will become the standard surgery in the near future. "The ability to treat cancerous kidneys and benign kidney diseases with this technique is a major advancement in the field of urologic surgery and offers great benefits to patients," he says.

Skull-based tumor removal

Surgeons have two options when tumors occur at the base of the brain: move the brain or move the bones of the skull and face that the brain rests on to access the tumor. Although retracting the brain may sound less complicated, it poses a risk to the area of the brain that controls important vascular and neurological functions such as swallowing, speech, and eye and facial movement.

Dr. Robert Strang, a neurosurgeon at Springfield Neurological Institute, is one of a handful of doctors in the country that performs skull-based tumor removal where the bones of the skull and face are disassembled to reach formerly inaccessible tumors.

"This is a way to get to tumors that were previously considered inoperable," Strang says. You can reconstruct bone, you can't reconstruct the brain."

In addition to decreasing the risk of injury to the brain stem, this 15-to 24-hour procedure provides a shorter working distance to a tumor and other critical structures. Incisions are made behind the hairline to save scarring the face and often other defects can be reconstructed at the time of surgery. Generally patients are in the hospital three to five days after surgery and can resume everyday activities in two weeks.

Although the procedure requires specialized training and equipment, Dr. Strang says this surgery is more of a change in philosophy than procedure. "Much like time saves muscle during a heart attack, less retraction on the brain saves neurological function," says Strang.

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