Varicose Veins

Varicose veins may not be just a cosmetic concern.

These dilated, protruding or visible veins in the lower legs may be a sign of deeper problems, which can cause pain, swelling and even ulcers in the skin. Approximately 20–25 million Americans suffer with varicose veins.

UF vascular surgeon Peter Nelson, MD, says compression stockings are the mainstay of treatment; however, when surgery is necessary, new minimally invasive treatments are available.

“Although commonly thought to be a cosmetic concern, varicose veins can be a sign of more serious problems such as leaky valves or blockages in the venous system, referred to as venous insufficiency,” said Nelson.

Thorough evaluation combining both physical examination and comprehensive diagnostic ultrasound is the first step for people concerned about varicose veins.

“Without thorough evaluation and appropriate treatment, most patients will experience repeat cases of varicose veins and are at risk for more severe problems such as chronic leg swelling and skin ulcers,” said Nelson.

The UF Comprehensive Vein Center offers a variety of therapies to treat the underlying problems of leaky valves: the VNUS Closure System, which uses radiofrequency energy to close off abnormal veins via a percutaneous outpatient procedure; conventional open surgical vein ligation and stripping; and ambulatory phlebectomy.

If varicose veins are merely a cosmetic concern, sclerotherapy and laser treatment are available.

Call the UF Comprehensive Vein Center at 352.392.9928 for more information.

UF Surgeons First in State to Implant DPS in Spine-Injured Patient

UF trauma medical director Lawrence Lottenberg, MD, along with John Armstrong, MD, an assistant professor of surgery, were the first in the state to implant an electronic breathing device, called a diaphragm pacing system, in a ventilator-dependent, spinal cord-injured patient. On March 9 at Shands at UF, the UF team used the NeuRx DPS developed by Synapse Biomedical Inc., — the same system that gave actor Christopher Reeve freedom from a ventilator after paralysis following a traumatic spinal cord injury. Read the full story at shands.org.

New Plastic Surgery Office

UF Plastic Surgery opened a new office this spring, offering patients the conveniences of easy access and free parking. Located at 908 NW 57th St., Suite D-6, the new office is in the Park Avenue Office Complex off Newberry Road in Gainesville. UF plastic and reconstructive surgeons offer the latest in surgical procedures, including breast reconstruction, cosmetic facial surgery and body contouring. Fresh Faces, the office’s skin rejuvenation program, offers a range of nonsurgical methods to help clients refresh their look.

Visit: http://floridaplasticsurgery.ufl.edu

Children’s Surgical Center

The Shands Children’s Surgical Center at Ayers is a newly dedicated surgical facility devoted to the care of children and adolescents. The center is currently undergoing a facelift, bringing a fresh look to the facility and enhancing the experience for young patients and their families. Fully staffed by a team of children’s specialists, the center’s UF pediatric specialty surgeons offer a range of outpatient procedures. Located in downtown Gainesville, the center offers both efficiency and easy accessibility for patients and their families.

For appointments call 352.273.8800.

Spring Brings A Fresh Look To Surgical Facilities

Call the UF Comprehensive Vein Center at 352.392.9928 for more information.
UF colorectal surgeon W. Robert Rout, MD, an associate professor of surgery, performed the first TEM, transanal endoscopic microsurgical, resection of a rectal tumor in Florida about 15 years ago. Since then, Rout has pioneered the use of TEM for curative or palliative treatment for patients with benign and malignant rectal polyps.

Using a binocular operative microscope, endoscopic instruments and a specialized video system, Rout, and his colleague, fellowship-trained colorectal surgeon Sanda Tan, MD, PhD, are able to perform minimally invasive TEM on patients with tumors—both benign and malignant—as far as 20 centimeters in the rectum.

“TEM provides surgeons a much clearer, magnified view of the operative area, and allows for superior precision over traditional surgery,” says Rout. “The binocular vision and video system enables us to better visualize the lesion and obtain precise removal of the tumor.”

The primary advantage of TEM for patients is the avoidance of radical surgery and major abdominal incisions, which reduces the morbidity and mortality associated with major colorectal surgery. This also reduces the patient’s stay in the hospital from several days down to 24 hours or less, depending on the patient.

TEM is a major step in helping patients preserve their anal sphincters and often is performed as part of a multimodality treatment program that includes adjuvant radiation and/or chemotherapy. Thus, every case at Shands at UF that has abnormal or cancerous tumors of the rectum is reviewed at the weekly tumor board meeting, where a multidisciplinary team of physicians and specialists, including medical, surgical and radiation oncologists, determine the optimal treatment plan for each patient.

“We’re trying to make patients better without compromising their well-being, and we’ve had satisfactory outcomes so far with low rates of tumor recurrence,” says Rout. “In the long run, TEM is very beneficial for the patient, which is what we’re all about.”

The more recent addition of Tan, a UF assistant professor, and Emina Huang, MD, a UF associate professor, as members of the UF colorectal surgical team, further expands the range of minimally invasive surgeries being offered at Shands at UF. The team offers open and laparoscopic procedures for benign and malignant disease of the colon, rectum, anus and pelvic floor. UF surgeons are experts in colorectal cancers, ulcerative colitis, Crohn’s disease, and fecal constipation and incontinence.
Mitral Valve Repair Offers Advantages Over Replacement Surgery

Despite the growing body of evidence favoring mitral valve repair for the treatment of patients with moderate to severe mitral regurgitation, nearly 50 percent of all cases in the United States still are treated with mitral valve replacement. At Shands at the University of Florida, UF cardiac surgeons successfully employ valve repair surgery in more than 90 percent of patients presenting with mitral regurgitation without mitral stenosis.

“When we do a repair, we preserve all the natural structures of the heart, including the chordae tendinae that suspend the mitral valve to the papillary muscles that make the valve work properly,” said Chuck Klodell, MD, a UF College of Medicine associate professor of thoracic and cardiovascular surgery.

“Although this requires more patience and slightly more time in the OR due to the meticulous surgical techniques involved, it ultimately results in better long-term outcomes, quality of life and longer lives for the patients.”

By avoiding mechanical replacements whenever possible, surgeons also bypass the need to prescribe patients life-long regimens of Coumadin or other blood thinners. Since mechanical mitral valves require high levels of Coumadin, patients treated with valve repair are at a lower risk for bleeding or clotting events than patients with mechanical valve replacement. Klodell said this can be a problem in the long term because if patients with valve replacement do not properly regulate their Coumadin, they constantly will oscillate between increased risk of bleeding and risk of stroke.

“This is just one more reason that valve repair should be considered the first option in any leaking mitral valve,” said Klodell.

Because Shands at UF is an academic medical center, Klodell said the multidisciplinary UF cardiac team is better equipped than most other centers to deal with mitral valve repair, with easier access to advanced technologies, techniques and training.

“Our entire team is in tune with the importance of repair for the patient. From the initial visits with the cardiologists, who are extremely facile with echocardiography and the imaging needed in the planning of how to repair these valves, to the anesthesiologists, perfusionists, OR staff and highly specialized surgeons – all trained in minimally invasive valve surgery – we are ideally suited to be at the forefront of repairing as many of those leaky valves as possible,” Klodell said.

Klodell emphasized that the notion that valve repair surgery has to be a terrible event in one’s life is completely outdated.

“Our ultimate concern is the patient’s comfort and overall experience, from their initial clinic visit through surgery and postoperative care in the ICU to pain management and following up with their primary care physicians,” said Klodell.

“We focus on blood conservation and avoidance of blood- or blood-component transfusion, and we place a special emphasis on the patient’s expectations of pain control, providing multiple options to keep them comfortable and make this a positive life experience.”

Tomas Martin, MD, interim chief of the UF division of thoracic and cardiovascular surgery, operates with Robert Pascatto Sr., MD, of Ft. Myers, Fla., in the Dominican Republic during a recent medical mission trip. Organized by Heart to Heart Mission of Ft. Myers, a team of more than 15 cardiac surgeons, anesthesiologists, circulators, perfusionists and nurses performed 10 operations, providing much needed cardiac surgical care at Jose Maria Cabral y Baez Hospital in Santiago, Dominican Republic. UF cardiac anesthesiologist, Greg Janelle, MD, who accompanied Martin, said they hope to go back with two surgical teams in February 2010.
Dear Colleagues:

Previously in The Stitch, I provided a prelude to our most valuable asset — our faculty and trainees. What makes these individuals unique? It is their continual pursuit of excellence in patient care, scholarship and service.

Clinical care is our foundation and UF surgeons excel in treating patients with complex diseases. On a regular basis, I tour our operating rooms to see truly amazing clinical accomplishments. I was impressed by the Florida Sleeve, an operation developed by our cardiac surgeons for aortic root remodeling. In addition, our surgical oncologists and laparoscopic surgeons have teamed-up to perform minimally invasive esophageal resections. UF is one of the few institutions in the Southeast to offer this procedure. When I round with the various services, I realize how these innovative procedures permit critically ill patients to return to a meaningful life. Furthermore, with this fertile clinical environment, our trainees are the beneficiaries of the faculty’s expertise. I am amazed that our residents will complete their training having performed 25 pancreatic operations when the required number is three!

Even though care of the surgical patient is our foundation, our department has a responsibility to advance the care of the surgical patient through basic and clinical science discoveries. Just recently, faculty members secured an NIH grant in liver disease and foundation grants in colon cancer, pancreatic cancer and cancer imaging. In addition, two of our residents captured regional awards for their research presentations and this winter several of our residents presented at the Academic Surgical Congress and the Southeastern Surgical Congress.

Importantly, our faculty and residents also devote countless hours to professional society leadership, manuscript and grant reviews, educational opportunities and community service.

I am proud of our faculty and residents and humbled to work with such an accomplished group. I hope you will have the opportunity to meet them!

Best wishes,
Kevin E. Behrns, MD
Interim Chairman

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With more than 78,000 Americans awaiting a kidney transplant, John Grove of Ohio recently gave his cousin a most generous gift: his kidney.

On Oct. 28, 2008 at Shands at UF, Grove’s kidney was transplanted to Barbara Doran, of Ocala, Fla. While living donor kidneys are usually taken laparoscopically, the procedure used in this case was even less invasive. For the first time at Shands at UF, a UF transplant surgeon, Joseph Magliocca, MD, removed a kidney via the navel. The navel method uses only one to two port openings (small incisions through which laparoscopic instruments are inserted) and a navel incision, eliminating the need for two additional port incisions and a lower abdominal cut typically used in the standard laparoscopic method.

“Our ultimate goal is to eliminate the barriers to live kidney donation that some people may perceive,” said Magliocca, a UF assistant professor of surgery. “This procedure makes the final result more cosmetically appealing and may motivate some patients to donate. With the number of patients on the kidney transplant waiting list growing far more rapidly than the number of deceased donors, every live kidney donor can make an impact on the lives of many people.”

Magliocca added that while this is still a major operation and the technique may not be appropriate for all patients, it could encourage some potential donors to move forward and donate a kidney to a loved one.

To see more images of this surgery and hear more about Barbara Doran and John Grove’s story, visit www.news.health.ufl.edu to view a photo slideshow. For more information about being a live kidney donor, visit www.shands.org.
Residents Earn Research Honors

Three UF department of surgery residents have received honors for their research efforts. **Robert Winfield, MD**, won both the Florida State Committee on Trauma and the American College of Surgeons’ Committee on Trauma Region IV resident competitions for his clinical research work in the area of trauma’s impact on morbidly obese patients. This March, he presented these findings at a national ACS meeting.

Winfield found that morbidly obese people involved in major trauma do not respond the same way to traditional resuscitative measures, such as intravenous fluids, as people of normal weight do, and that this response can be associated with the development of multiple organ failure.

“Our identification of a differential response to traditional resuscitative practices carries profound implications for the care of these patients following traumatic injury,” said Winfield.

**Elizabeth Warner, MD**, who won the basic science category at the Florida State Committee on Trauma’s research competition, found that neutrophils, a type of white blood cell that migrates to the lungs of patients with acute respiratory distress syndrome, or ARDS, have very different patterns of gene expression than neutrophils found in the same person’s circulatory system.

“These findings will help the scientific community to understand the mechanisms that drive the inflammation and progression of ARDS, which can lead to the development of new drug and gene therapies that might one day improve the survival of these patients,” said Warner.

**Frank Orlando, MD**, received second place at the 13th Annual Multidisciplinary Symposium on Breast Disease held this February. His research presentation highlighted the new discovery of a specific epigenetically modified gene, FOXJ1, in breast cancer and its future potential for helping to diagnose breast cancer cells more decisively and earlier.

Epigenetically modified genes have experienced changes at the chromosomal level that result in a silencing effect, therefore they are not functioning as they should be. When a tumor suppressor gene is silenced, there is a risk for malignant transformation.

For more about these research findings, visit: www.surgery.ufl.edu/news.asp.

New Surgical Simulator Provides True “Feel” of Surgery

Fourth-year UF residents **Ivan Zendejas, MD**, and **Nikki Kissane, MD**, work together on the new LAP Mentor surgical simulator located at the Malcom Randall Veterans Affairs Medical Center. Donated by the VA Medical Center in Gainesville, the LAP Mentor, produced by Simbionix, simulates the true feel of surgery while using different laparoscopic instruments, and provides a range of virtual surgical procedures, including suturing, gastric bypass and colectomy. The simulator tracks time and steps of the user, providing instructors very useful feedback on technique proficiency.

Read more about the new simulator at surgery.ufl.edu/news.asp.

5th Annual Department of Surgery Research Day   April 17, 2009 | Gainesville, FL

Scientific symposium including visiting professor lecture, oral and poster presentations, and an overview of the department’s latest initiatives. For more information, visit www.surgery.ufl.edu.
Research Briefs

Biomarkers Warn of Organ Injury During Heart Surgery

Heart surgeons may soon be able to identify within an hour of surgery which patients are at high risk for organ injury, UF researchers announced at the 2008 Clinical Congress of the American College of Surgeons, held this past fall.

Among medical concerns associated with complex heart surgery, kidney damage ranks only behind death, heart attack and stroke. Current blood tests warn of potential kidney problems within one or two days after heart surgery. UF surgeons believe developing a test that identifies at-risk patients while they are still in the operating room could lead to treatments that prevent kidney injury altogether.

In a prospective study of patients who had complex heart surgery, UF researchers found elevated levels of a protein called neutrophil-gelatinase-associated-lipocalin, or NGAL, and other inflammatory biomarkers were detected as soon as one hour after completion of surgery, compared with the current test of serum creatinine, which does not show injury until one to two days later.

“The problem with kidney injury is that the markers we commonly use, like measuring the serum creatinine, often change when it is already too late in the game,” said presenter Tad Kim, MD, a UF surgical resident who is spending two years in the laboratory as part of his training. “The damage is already done and you can try to help rescue the kidneys, but you haven’t really caught it early enough. It would be nice if we could see something via a simple blood or urine test that tells us earlier in the process that the kidneys are undergoing injury so we can intervene instead of waiting.”

The UF study examined the results of 38 patients who underwent thoracic aorta or valve operations and found that after just one hour, the NGAL levels and inflammatory biomarkers were already elevated in those patients who developed postsurgery organ injury.

The study’s principal investigator, Thomas Beaver, MD, a UF associate professor of thoracic and cardiovascular surgery, said 10 to 40 percent of patients undergoing heart surgery are at risk for some level of kidney injury. Kidney damage to the extent of requiring dialysis results in about 1 percent of standard cardiac operations and 8 percent of more complex aortic surgeries. However, researchers say even milder degrees of kidney injury have been associated with negative outcomes.

“The kidneys are sensitive and highly dependent on their blood supply, which can be impaired during and after surgery,” Beaver said. “They get 20 percent of the body’s blood flow, so any debris that is in the bloodstream at the time of surgery is at risk of reaching the kidneys.”

He added that drugs used during surgery and the heart-lung bypass machine itself also can be hard on the kidneys.

The development of a test that provides nearly instant results would be the first part of preventing kidney injury. The second part is the development of a therapeutic intervention. Currently there is no FDA-approved drug that can intervene and stop damage to the kidneys during surgery, but UF researchers are involved in two clinical trials evaluating drugs that may have protective value.

Beaver said research is still in the early stages but perhaps within three years it will be possible to administer a test in the operating room, receive immediate feedback on signals of kidney injury, and then deliver drug intervention.

Evaluating Dialysis Access Mechanisms

A UF vascular surgeon has received a $1.1 million five-year National Institutes of Health grant to evaluate a common surgical procedure, called an arm fistula, used to create access sites for patients needing hemodialysis.

Thomas Huber, MD, PhD, a UF professor in the division of vascular surgery and endovascular therapy, will lead a multidisciplinary team of UF faculty to define the natural history of fistulas, a surgically created connection between an artery and a vein. Fistulas, which provide a single entry and exit point for blood flow for hemodialysis, are a common type of access for patients who need hemodialysis.

The UF team will work with five other centers across the country to outline practice patterns and create surgical guidelines with the aim of increasing the number of successful fistula procedures.

Huber said currently there is a higher than desired failure rate when fistulas are first created. Through this project, researchers hope to better understand why some fistulas cannot be successfully formed initially and why others do not mature, as they should, into the necessary size for use. The answers to these questions could provide cost savings and enhance patient care.

Although fistulas cannot be used for dialysis until three to four months after they are created, they are the optimal access method because they can be used for a long time and are resistant to infection, Huber said. UF vascular surgeons have about a 70 percent success rate in creating fistulas, a statistic that is higher than the national average.

To read the full stories and other news about research and discoveries, visit www.surgery.ufl.edu/news.asp.
New Faculty Join UF Department of Surgery

Philip Efron, MD, is a UF assistant professor of surgery specializing in surgical critical care. He also serves as co-director of the Laboratory of Inflammation Biology and Surgical Science, and will focus his research efforts on sepsis and inflammation.

Efron, who trained in general surgery at UF, recently completed a yearlong surgical critical care fellowship at Barnes-Jewish Hospital/Washington University School of Medicine in Saint Louis. During his general surgery residency, he spent an additional three years at UF to focus on basic science research in the lab.

Sunil Malhotra, MD, who joined UF this past fall, is a UF assistant professor of surgery and pediatrics. His clinical focus is on the surgical management of congenital heart disease in children and adults, with an emphasis on neonatal cardiac surgery, pediatric heart transplantation and the management of single-ventricle physiology.

His research interests include the development of engineered cardiac tissue and reducing the injury impact on the right ventricle after surgery to repair tetralogy of Fallot, a complex condition in which several congenital heart defects occur.

To learn more about these surgeons, visit www.surgery.ufl.edu.

UF Surgeon Elected Head of Craniofacial Association

M. Brent Seagle, MD, a UF associate professor and chief of the division of plastic and reconstructive surgery, is now head of the Florida Cleft Palate-Craniofacial Association.

Seagle, who just served as secretary, was elected president during the organization's annual meeting held in January. This marks the second time he will serve as the association's president.

UF Trauma Surgeon Earns Accolades

John Armstrong, MD, a UF assistant professor of surgery, recently received the 2008 Special Recognition Award from the Surgical Caucus of the American Medical Association for displaying dedication and excellence while serving as chair of the caucus for the past three years.

He also has been appointed to the Health Policy Steering Committee of the American College of Surgeons and played a significant role in developing the ACS Health Policy Agenda for 2009. In addition, he was recently elected to the American Association for the Surgery of Trauma, which promotes research and education in the area of burns, trauma and acute care surgery.

UF Surgical Oncologists take on Leadership Roles

UF chief of surgical oncology Steven Hochwald, MD, now sits as the Florida state chair of the American College of Surgeons’ Commission on Cancer, a consortium of professional organizations dedicated to improving survival and quality of life for cancer patients.

Hochwald, an associate professor of surgery, was named the Edward M. Copeland III, MD professor of surgery in late 2008; a position that will enable him to further focus on translating laboratory findings into patient care practices.

Stephen Grobmyer, MD, chief of the Breast, Melanoma, Sarcoma, and Endocrine Surgical Service, chaired an international cancer nanotechnology symposium at the Society for Surgical Oncology’s annual meeting in March.

Participants in the symposium included the director of the National Cancer Institute, John Niederhuber, MD.

An assistant professor of surgery, Grobmyer was one of 26 surgeons elected into the Southern Surgical Association this past December.

For the Children

Patti Behrns sets up toys for the Shands Children’s Hospital playrooms during the holiday season. She, Amy Zingarelli, left, and other wives of UF surgeons organized a toy collection during the department’s holiday party. Gifts for children of all ages were donated to Shands’ Child Life program, which helps children and families cope with hospitalization. Child life specialist Naomi Martinez said donations are down, so the gifts were very helpful. If interested in helping, Shands’ Child Life has a wish list on amazon.com.

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