

Accelerating Science—Advancing Medicine

The integration of The Mount Sinai Medical Center with Continuum Health Partners in September launched a bold new era in community-based care that now includes seven hospital campuses in New York City and the Icahn School of Medicine at Mount Sinai.

The newly established Mount Sinai Health System will provide an unparalleled opportunity for increased efficiency and coordinated care in this region. We now have the largest cohort of world-class surgeons with more surgical experience than any hospital in the Northeast, and an unmatched capacity of 138 operating rooms.

The depth of our surgical services includes long-standing techniques that were pioneered at Mount Sinai by Julius H. Jacobson II, MD, the father of microsurgery, and continue today as we advance endovascular surgery procedures.

For nearly 160 years, The Mount Sinai Hospital has led the nation in gastroenterology, and colon and rectal discoveries—with recent innovations for fecal incontinence. In the twenty-first century, we are renowned leaders in bariatric and minimally invasive surgery; and today, the new Health System will help us build upon these achievements, and more. An extraordinary team of surgeons is shaping the new Mount Sinai Health System. Together, we can advance the patient-centered approach and elevate the standard for surgical care.



Michael L. Marin, MD, FACS,
The Jacobson Professor of Surgery;
Chairman, Department of Surgery;
and Surgeon-In-Chief, The Mount
Sinai Hospital

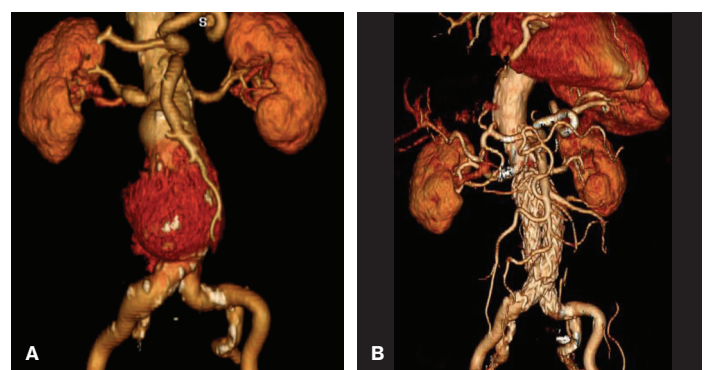
COMPLEX CASES

Using a Stent Graft with Covered Stent Branches to Treat Aneurysms of the Visceral Aorta

The patient is a 78-year-old man who was diagnosed with a seven-centimeter aneurysm that involved the visceral segment of the aorta. His surgeons, citing advanced age and high risk, deferred traditional open surgical repair, and the patient sought care at Mount Sinai.

In January 2013, Peter Faries, MD, Chief of Vascular Surgery at Mount Sinai, treated the aneurysm with a minimally invasive approach by utilizing an endovascular stent graft with covered stent branches to maintain arterial flow to essential organs, including the kidneys. This technique diverted the blood flow away from the weakened aneurysm wall, while also maintaining blood flow to the kidneys, pelvis, and lower extremities.

Immediately postoperatively, the endovascular stent graft procedure alleviated the aneurysm. The patient responded extremely well to the treatment and was discharged the following morning, ambulating without difficulty, and tolerating a normal diet. He resumed all of his normal daily living activities immediately and recovered fully in two weeks. The patient remains well, is very active 13 months after surgery, and the CT scan performed at 12 months demonstrated



A) Preoperative CT scan shows large abdominal aortic aneurysm involving renal arteries, making traditional endovascular repair impossible. B) Placement of endovascular stent graft with covered branches allowed for successful treatment while preserving blood flow to the kidneys.

continued success of the treatment to repair the aneurysm and preserve renal artery blood flow. Most important, the patient's quality of life is remarkable.

Over the years, Mount Sinai's vascular surgeons have made significant contributions to the development and evolution of minimally invasive treatments for aortic aneurysm, including the first endovascular aneurysm repair in North America, which was performed by Michael L. Marin, MD, FACS, Chairman of the Department of Surgery.

IMPROVING PATIENT OUTCOMES

Reducing Mortality Rates for Abdominal Cancers

Peritoneal carcinomatosis (PC) is traditionally regarded as the endpoint of a variety of intra-abdominal tumors. Today, with improved understanding of the disease, with improved understanding of the disease, cytoreductive surgery (CRS), in combination with hyperthermic intraperitoneal chemoperfusion (HIPEC), has become a novel treatment approach in select patients. HIPEC is an aggressive, intra-operative procedure, in which a concentrated chemotherapy solution is heated and used to directly penetrate the diseased tissue, to increase the absorption of chemotherapy throughout the abdominal cavity.

Daniel M. Labow, MD, Associate Professor of Surgery and Chief, Surgical Oncology and Hepatobiliary Surgery, and his team have performed nearly 250 HIPEC-CRS procedures since 2007 for PC stemming from primary tumor sites, such as colon, gastric, ovarian, and appendiceal cancers, as well as mesothelioma and pseudomyxoma peritonei. They report mortality rates of less than 1 percent. Additionally, they have demonstrated significant survival benefits, including a reduced risk of recurrence, using HIPEC-CRS in treating PC in patients having undergone optimal debulking.



Daniel M. Labow, MD, second from right, with his team of surgeons, from left: Spiros Hiotis, MD, PhD, Associate Professor, Surgery (Surgical Oncology), and Assistant Professor, Oncological Sciences; Umut Sarpel, MD, MSc, Assistant Professor, Surgery (Surgical Oncology); and David S. Lee, MD, Assistant Professor of Surgery (Surgical Oncology)

Enhancing Outcomes in Bariatric and Endocrine Surgery Patients

William B. Inabnet III, MD, Chief of the Division of Metabolic, Endocrine and Minimally Invasive Surgery (MEMIS), and his team continue to influence quality improvement standards.

The Division launched MBSAQIP (Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program), a restructured initiative sponsored by the American College of Surgeons, and has hired a Quality Assurance Officer to help manage Mount Sinai's quality initiatives. Under this program, the division aims to meet or exceed the following quality improvement benchmarks for bariatric surgery:

- an overall 30-day morbidity rate less than the national average;
- a rate of readmissions below the national average; and
- a 30-day re-operation rate of zero for leak, GI perforation, and intestinal obstruction.

Nationally, Dr. Inabnet is Co-Chair of the American Society for Metabolic and Bariatric Surgery's Quality and Standards Committee, and is leading a national Endocrine Surgery QA initiative called CESQIP (Collaborative Endocrine Surgery Quality Improvement Program) of the American Association of Endocrine Surgeons, which aims to measure quality and resource utilization for thyroid, parathyroid, adrenal, and neuroendocrine tumor procedures.

ADVANCING RESEARCH

Disparities in Treating Hepatocellular Carcinoma

Umut Sarpel, MD, MSc, Assistant Professor in the Division of Surgical Oncology, has received an R03 grant from the National Cancer Institute to investigate disparities in the treatment of hepatocellular carcinoma (HCC), the world's third-leading cause of death from cancer.

Mount Sinai has treated approximately 3,200 HCC patients over the past decade and is one of the largest sites for HCC care in the United States. Specifically, one of Dr. Sarpel's goals is to uncover the racial and ethnic disparities that derail access to care for liver transplantation, the most effective treatment for HCC.



Umut Sarpel, MD, MSc, right, with Samantha Aycart, PA, a member of the surgical oncology team

Studies have shown that minorities tend to undergo transplantation less often than nonminorities. However, it is unknown if they are opting out of transplantation, or not being offered transplantation as frequently. Dr. Sarpel's team will use a rigorous statistical analysis to

evaluate where specifically the disparities occur, by comparing the two populations of patients as they move from initial diagnosis, to evaluation by a liver cancer specialist, to being officially listed for a transplant, and, ultimately, to receiving a new liver.

INNOVATION IN SURGERY

Using the Sacral Nerve Stimulator for Fecal Incontinence

Surgeons in the Division of Colon and Rectal Surgery were the first in New York City to use sacral nerve stimulation in patients who had not benefited from behavioral or medical treatments for fecal incontinence. The InterStim® neurostimulator device is surgically implanted and consists of a thin wire to stimulate the sacral nerves. Patients control the strength of the mild electrical pulses that are sent to the sacral nerves to control the bowel, rectum, and

bladder. The procedure is ambulatory, and can be done under sedation with little to no recovery time. Follow-up results have been encouraging. Alex Jenny Ky, MD, Associate Professor, Surgery, leads a team of specialists providing the therapy and studying its long-term efficacy.



Alex Jenny Ky, MD