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 15 months after surgery, and the CT scan performed at 12 months demonstrated 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.
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, 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.

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 Quality Improvement Program, a member of the surgical oncology team.

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 5,200 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.

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.

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.