# The VEU

### The Vascular & Endovascular Update

Summer 2018

#### Dr. Eugene Tanquilut First to Perform Breakthrough Aneurysm Repair at Silver Cross Hospital

Fellowship trained surgeon uses fenestrated stent graft to repair abdominal aortic aneurysm.

On Jan. 31, 82-year-old Salvatore Darpa became the first patient at Silver Cross Hospital in New Lenox to receive a fenestrated stent graft to repair an abdominal aortic aneurysm. Dr. Eugene Tanquilut of Vascular Specialists performed the historic surgery.

"My father had been having pain, and his chest was bulging a bit," said Sara Darpa, Salvatore's daughter. The Lockport resident, who speaks only his native Italian, saw his primary care physician Dr. Zafer Jawich and was diagnosed with a hiatal hernia.

A hiatal hernia happens when a substantial part of the stomach pushes through the hiatus, a small opening in the diaphragm, the muscle which separates the chest and the abdomen. Dr. Jawich recommended the family to general surgeon Dr. Reza Gamagami. On October 12, Dr. Gamagami surgically repaired Salvatore's hernia, using Silver Cross Hospital's da Vinci robotic surgical system. The procedure was successful, but there was a concern.

"When Dr. Gamagami came out to tell us how the surgery went, he told us my dad had an abdominal aortic aneurysm (AAA). No one knew about it," said Sara Darpa.

An AAA happens in the aorta, the body's main blood vessel. The aorta is about the size of a garden hose and runs from the heart down through the abdomen, splitting into the iliac arteries below the waist. An aneurysm is a weakening in the wall of the aorta, like a balloon, which begins to expand. Many aneurysms are small and stay small, never causing any problems for a patient. When a smaller AAA is discovered, most physicians recommend a "wait and watch" approach, monitoring the AAA for any growth or signs of impending rupture.

In Salvatore's case, that conservative approach was not an option. "Dr. Gamagami told us that doctors become concerned and recommend surgery when the AAA is at 5 centimeters," said Sara Darpa. "My dad's was already at 7." Darpa says Dr. Gamagami told the family to call Dr. Tanquilut as soon as Salvatore had healed from the hernia repair. "We went as quickly as possible."

Dr. Eugene Tanquilut is boardcertified and fellowship-trained in vascular and endovascular surgery. He is President of

Vascular Specialists, with offices in Olympia Fields, Orland Park and Chicago. He completed

"Mr. Darpa's AAA was one of the most complicated sorts."

his fellowship training at the esteemed Cleveland Clinic in Ohio and is well respected in the Chicago Southland for both his outstanding surgical skills and accessible, warm bedside manner. The group treats patients at Silver Cross Hospital, Advocate South Suburban Hospital, Franciscan Health Olympia Fields and Chicago Heights, and Advocate Trinity Hospital.

At the initial appointment in November, Dr. Tanquilut did a complete examination of Salvatore, and explained that he could feel the AAA using his hands. Sara's sister was able to feel it through Salvatore's abdomen too.

"Dr. T made us feel very

comfortable immediately. He's very friendly and very willing to answer questions. He explained everything, talked about our options of the endovascular surgery or opening my dad up from his chest to his groin. Dr. Tanquilut drew out the surgery for us and explained it all start to finish. My dad is not in the best of health. He's had a triple bypass, lung cancer, he was a heavy smoker, he has heart disease and manages diabetes. Our family made the decision to go with the endovascular option, because why wouldn't you if that's possible? We felt very comfortable that Dr. Tanquilut was going to do it right," said Sara Darpa.

After initial examination and the decision to use endovascular, or minimally invasive, techniques if at all possible, Darpa underwent a CT scan that provided accurate measurements of the location and size of his aorta and the aneurysm along with details of his own unique morphology.

"Mr. Darpa's AAA is the most complicated sort of AAA," said Dr. Tanquilut. "While most AAA can be treated with a regular stent graft, because of the position of Mr. Darpa's, his required a special construction using a fenestrated stent graft."

Most AAA are infrerenal, meaning the enlarged area is at least 15mm below the intersection of the aorta and the renal arteries which lead to the kidneys. That 15mm gives Dr. Tanquilut ample room to place a standard stent graft, which resembles a very tiny pair of pants, with the elongated torso of the "pants" protecting the aneurysm from rupture while the "legs" branch off into each iliac artery, which provide the lower extremities with blood flow.

Darpa's AAA was juxtarenal,

which means there was at most 5mm of space between the renal arteries and the aneurysm itself. "A regular stent can't be placed in this location," said Dr. Tanquilut, "because blood flow to the kidneys would be blocked.

It was as early as 2002 that Dr. Tanquilut began working with the experimental fenestrated stent graft at Cleveland Clinic. "At this time, the fenestrated grafts were still in the investigative stages; they were only being used in research institutions," said Dr. Tanquilut.

In spring 2012, the graft, made of woven polyester fabric and stainless steel, was approved for general use in the United States by the FDA. Data has shown that, within 5 years of placement, there have been zero ruptures and no conversions via open repair. In those 5 years, 97.3% of patients have survived any AAA-related causes of mortality, and there have been no deaths from device failure.

Dr. Tanquilut and his associates at Vascular Specialists, Dr. Sanjeev Pradhan and Dr. Saadi Alhalbouni, are the only boardcertified and fellowship-trained endovascular surgeons at Silver Cross Hospital.

"Because of Mr. Darpa's advanced age and multiple medical conditions, he really couldn't handle an open operation. This requires clamping above the superior mesenteric artery or the renal arteries, which stops the blood flow to the kidneys and to the intestines. That increases the chances of complications, possibly leading to mortality," said Dr. Tanquilut. "In this case, a fenestrated stent graft or a chimney graft were really the only two options to give the patient a chance at a timely and full recovery, with minimal chance

of complications. I trust the fenestrated modality."

In a little less than six weeks, Cook Medical, maker of the Zenith fenestrated stent graft, fashioned Darpa's fenestrated stent to Darpa's exact measurements, ensuring a precise fit within his aorta. The result was a tube with openings on both ends, holes on either side and a scallop at the top to accommodate the superior mesenteric artery.

On the last day of January, Salvatore was admitted to Silver Cross Hospital. "Dr. T talked to us before Dad went into surgery, told us it would take about three to four hours, and he would have a nurse update us on Dad's progress every hour. And he really did," said Sara Darpa.

In surgery, Dr. Tanquilut made a small incision in Darpa's groin, then inserted a catheter which he threaded into the aorta. He deployed the fenestrated stent graft, placing the graft within a healthy part of the aorta and aligning the fenestrations - the holes - for the renal arteries. He then placed additional grafts, allowing blood flow into the kidneys and legs. Each stent is small enough to fit on the nail of a little finger, about 6mm in diameter and 6-8mm high.

After surgery, Dr Tanquilut reported to the family. "He said it had gone very well," said Sara Darpa, "and he didn't expect there to be any issues going forward. Dr. Tanquilut covered everything, and answered all our questions, even satisfying my sister, who likes a lot of details. When we left that day, we didn't have any unanswered questions."

Because of his age and health, Salvatore recovered at Silver Cross for about a week. "He's home now. A physical therapist and a nurse visit him several times a week," said Sara Darpa. "It was good for him to get home because he is more motivated here."

Most astonishing was the phone call and follow up from Dr. Tanquilut. "He called the house and asked when my dad was coming in for a follow-up appointment. I mentioned that we hadn't made an appointment, because he really wasn't supposed to leave the house for two weeks. Dr. T asked if he could stop by the house to see Dad and check him out. I mean, oh gosh, did you ever hear that anywhere? Doctors don't make house calls. Seriously? But Dr. Tanguilut did, he checked out my dad and let us know that everything looked good and his recovery was going well. It was awesome."

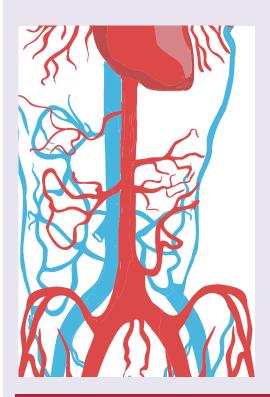
The family didn't know that Salvatore was the first fenestrated stent graft repair at Silver Cross Hospital. Dr. Tanquilut and his associates have performed fenestrated stent grafts at other area hospitals.

"I think we found out that Dad was the first surgery of this kind at Silver Cross on the day of surgery. Honestly, to us it was no big deal and it never crossed our minds to think about it because we knew Dr. T would do it right."

"I would recommend Dr.
Tanquilut 100%. He has a
wonderful personality and the way
he explains things is so thorough.
He really knows what he's doing,"
said Sara Darpa. "It's funny to say
you feel you have a relationship
with a doctor, but because of our
relationship with Dr. Tanquilut,
my dad made history at Silver
Cross, and we never even gave it a
thought."

The *Abdominal Aorta* is the abdomen's major artery, providing blood to the tissues and organs in the abdomen, pelvis and legs. The abdominal aorta has three single anterior visceral branches, three paired lateral visceral branches, five paired lateral abdominal wall branches and three terminal branches.

It runs parallel to the spine, through the entire abdomen from the diaphragm to the pelvis, where it splits into the left and right common iliac arteries.

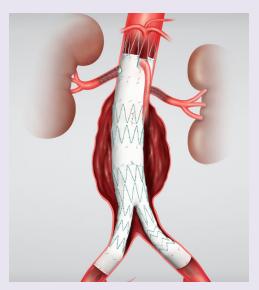


Fenestrated Stents are made of a woven polyester fabric and stainless steel stents. Cook Medical is the exclusive manufacturer of these stents.

Each stent is custom fashioned for a patient's exact measurement, taken via CT.

Fenestrated stents are appropriate for patients who have aneurysms that are anatomically suitable for this device and who are at a higher risk of complications from an open repair.

Medically unfit patients, those with limited life expectancy, and those who will not improve from medical therapy will not benefit from this device.



You're invited to LEA-UP
Lower Extremity Amputation and Ulcer Prevention

Thursday, September 20 at 6:30 pm
Avni Vora, MD, Endocrinologist,
discussing optimal glucose control in diabetic patients
to prevent complications

Contact Julie Rivera at jrivera@vascspecialists.org or text to 219-314-1644 to reserve your seat.

#### Dr. Eugene Tanquilut - Vascular Specialists

Award-winning and recognized as a Vitals Top 10 Doctor and a Patient's Choice Doctor, **Dr. Eugene Tanquilut** is board-certified in both vascular and endovascular surgery. He earned Vascular and Endovascular Fellowships at Cleveland Clinic.

Dr. Tanquilut and the physicians at Vascular Specialists have gained exceptional knowledge and experience through advanced education and decades of practice. They have participated in numerous research studies, have published papers and are widely-requested speakers

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Vascular Specialists is a complete vascular practice. Best of all, Dr. Tanquilut and our medical professionals approach each patient as a member of the family, with empathy, altruism and honesty.

Vascular Specialists has convenient offices in Olympia Fields, Orland Park and Chicago, treating patients at Advocate South Suburban Hospital, Advocate Trinity Hospital, Franciscan Health Olympia Fields, Franciscan Health Chicago Heights and Silver Cross Hospital.

You are invited to LEA-UP, Lower Extremity Amputation and Ulcer Prevention!

LEA-UP meets quarterly to learn from experts in the fields of podiatry, infectious disease, primary care, nephrology, vascular surgery and more.

Thursday, September 20
6:30 pm
Avni Vora, MD,
Endocrinologist
will discuss optimal glucose
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Contact Julie Rivera jrivera@vascspecialists.org or text to 219-314-1644 to reserve your seat.

## Inside: Breakthrough Aneurysm Repair and patient Salvatore Darpa

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