

# TransCarotid Artery Revascularization (TCAR)

## Beebe Offers TransCarotid Artery Revascularization (TCAR)

Every year, 15 million people worldwide suffer a stroke, also known as a brain attack. Nearly 6 million die and another 5 million are left permanently disabled.

Research has found there can be many causes for stroke, however up to a third of cases are caused by carotid artery disease—the buildup of plaque in one or both of the arteries in the neck that supply blood from the heart to the brain. When plaque builds up in the carotid arteries, they begin to narrow and blood flow slows down, potentially causing a stroke if blood flow stops or plaque fragments dislodge and travel up to the brain.

#### MANAGING CAROTID ARTERY DISEASE

As physicians, we can talk to our patients about their disease. Some patients can manage carotid artery disease with medications and lifestyle changes. However, more severe cases may require surgery to repair the blockage in the artery.

Beebe Healthcare is offering TransCarotid Artery Revascularization (TCAR) to treat patients with carotid artery disease who are at higher risk for traditional open surgery known as carotid endarterectomy (CEA). While any repair of the carotid artery carries some risk of causing a stroke because of the intervention itself, TCAR was designed to help lower that risk.

#### TALK TO PATIENTS ABOUT BENEFITS OF TCAR

Like CEA, the TCAR procedure involves direct access to the carotid artery, but through a much smaller incision at the neckline just above the clavicle instead of a longer incision on the neck.

During the TCAR procedure, a tube inserted into the carotid artery is connected to a system that temporarily directs blood flow away from the brain to protect against dangerous debris from reaching the brain during the procedure. Surgeons then filter the blood before returning it to a vein in the groin, and a stent is implanted directly into the carotid artery to stabilize the plaque and prevent future strokes.

The entire procedure is performed in less than half the time of CEA—limiting the stress on the heart and significantly cutting the risk of the patient having a stroke or heart attack during the procedure.

Over 10,000 TCAR procedures have been performed worldwide through clinical trial and commercial use. TCAR has been studied extensively, and the clinical data have been excellent.

Patients who undergo the TCAR procedure recover quickly and typically go home the next day to return to full and productive lives with less pain and smaller scars.

### **Beebe Vascular Surgeons**



**KEVIN CALDWELL, MD** Board Eligible in Vascular Surgery

Dr. Kevin Caldwell received his medical degree from University of Maryland School of Medicine in Baltimore. He

completed his general surgery residency and his integrated vascular surgery residency at Southern Illinois University. He previously was an Associate Professor and Anatomy Lab Instructor with University of Maryland School of Medicine.



**CARLOS NEVES, MD** Board Certified in Vascular Surgery

Dr. Carlos Neves received his medical degree from Rutgers University/Robert

Wood Johnson Medical School in New Jersey. He completed his surgical internship and residency at Temple University Hospital. He specializes in both open and endovascular (minimally invasive) repair of aneurysm disease as well as carotid artery surgery for stroke prevention. He offers percutaneous or incision-less repair of aortic aneurysms. Other areas of interest include: minimally invasive procedure with balloon angioplasty, atherectomy and stenting for peripheral arterial disease, complex lower extremity bypass procedures, carotid artery stenting, hemodialysis access, placement and retrieval of IVC filters, and treatment of varicose veins and all types of venous disorders.



#### SEAN RYAN, MD

Board Certified in Vascular Surgery

Dr. Sean Ryan received his medical degree at Rutgers University/Robert Wood Johnson System. He completed his

surgical residency at Christiana Care and his Fellowship training in vascular surgery at Thomas Jefferson University. He spent an extra year of training during surgical residency in a laboratory to work on tissue regeneration and teaching anatomy at the University of Delaware. He offers incision-less repair of aortic aneurysms. Other areas of interest include: minimally invasive balloon angioplasty, atherectomy, and stenting, lower extremity bypass procedures, carotid artery surgery and stenting, permanent hemodialysis access for end-stage renal disease, placement and retrieval of IVC filters, and evaluation and surgical management of thoracic outlet syndrome (TOS).

