Neurovascular Program

Directed by internationally renowned neurointerventionalist, Dr. Thomas Grobelny, the neurovascular program at Advocate Christ Medical Center features highly successful breakthrough technologies and treatments that can treat cerebrovascular diseases without surgery.

Patients can opt for the minimally invasive therapeutic interventions available at Christ Medical Center to treat a wide array of acute neurological conditions, including strokes, aneurysms, and arteriovenous malformations.

These cutting edge procedures are performed without surgical incision and afford patients faster, more efficient rehabilitation and shorter recovery times.

Aneurysm Coiling

An aneurysm occurs when a section of arterial wall weakens and stretches to form a bulge that, untreated, can rupture and hemorrhage. Wide neck aneurysms involve weakened areas where multiple vessels meet, creating more life-threatening situations for patients.

Neurointerventionalists at Christ Medical Center’s neurovascular program use non-invasive coiling technology to treat aneurysms, including wide neck aneurysms. A catheter is thread into a small incision in the groin and through the femoral artery to the blockage. A flexible mesh tube, or stent, is placed at the base of the aneurysm and then expanded to conform to the arterial wall. Small metal coils are slid through the stent and into the aneurysm, blocking blood from entering the aneurysm and preventing a rupture. The stent prevents the coils from falling out of the aneurysm sac.
Intracranial Stenosis

For patients who suffer from TIA’s or have intracranial atherosclerotic disease, a Wingspan Stent is used to prevent stroke. The procedure involves threading a balloon catheter and tiny mesh tube, or stent, through the femoral artery to the area where plaque has built up. Once the stent is in place, it expands to brace open the arterial wall.

Exceptional Leadership

Dr. Thomas Grobelny, internationally renowned neurointerventionalist, directs the Neurosciences Institute’s neurovascular program, specializing in neurovascular and stroke intervention. Dr. Grobelny has established an excellent reputation for his pioneering work with the Merci Retrieval System trial that demonstrated a highly effective interventional treatment for occluded carotid arteries. He has since expanded on this expertise by perfecting stroke treatment using the Wingspan Stent System™ and Penumbra System™.

Dr. Grobelny’s expertise includes the full range of neurovascular interventions, including coiling of the most complex aneurysms, carotid/vertebral and intracranial stenting, and intracranial and extracranial AVM embolization, as well as acute stroke treatment.

Case Study: Intracranial Stenosis

Treated with coiling and stenting

**History**
56-year old male was incidentally diagnosed with an occlusion in one of his basilar vessels, started on Coumadin and sent home. Presented within a few days with light positional head movement, inducing blurred vision and vertigo.

**Angiographic Findings**
90%+ severe symptomatic stenosis of the intracranial left vertebral artery and a 4-5 mm wide neck left anterior communicating aneurysm.

**Endovascular Procedure**
Angioplasty of left vertebral arterial stenosis and Enterprise™ stent placement with coiling of the left anterior communicating aneurysm.

**Result**
Both the aneurysm and stenosis were repaired successfully. Patient was discharged home and with no neurologic deficit.

Case Study: Aneurysm

Treated with coiling and therapy

**History**
56-year old male who was status post a left vertebral artery stenting in July, status post left posterior circulation infarct.

**Angiographic Findings**
During that workup, the patient was noted to have an asymptomatic communicating artery aneurysm.

**Endovascular Procedure**
The patient was readmitted to the hospital and had a coiling of the anterior communicating artery performed by Dr. Grobelny.

**Result**
The patient received Physical and Occupational Therapy and had a great outcome.

Case Study: Occipital AVM

Treated with liquid embolic agent

**History**
14-year old female presented with seizures and headaches.

**Angiographic Findings**
Right posterior parietal occipital AVM (arterial venous malformation).

**Endovascular Procedure**
60% obliteration of right posterior parietal occipital AVM achieved using Onyx® Liquid Embolization System.

**Result**
Follow up CT revealed no intracranial bleed, midline shift or any masses. Patient recovered quickly and residual AVM was treated as outpatient with stereotactic radiosurgery.