



## ■ OTHER NEWS

ascertain provider treatment patterns, 12 providers who prescribe anticoagulants at the clinic were asked to rank factors used to determine whether anticoagulants would be prescribed, including risk of stroke or embolism, risk of bleeding, and patient adherence to treatment or monitoring.

The results demonstrated that the risk of ischemic stroke was higher than the risk of bleeding in these 50 patients. This suggested that other factors may have contributed to not prescribing anticoagulation therapy for these patients. Review of the medical records also revealed that the older CHADS<sub>2</sub> score was used more frequently than the newer CHA<sub>2</sub>DS<sub>2</sub>-VASc score. Physicians were asked to rank four determinants of deciding to prescribe anticoagulant therapy in order. The results were (highest to lowest): 1) risk of stroke; 2) patient adherence to treatment; 3) risk of bleeding; and 4) patient adherence to monitoring. This study confirmed that the prescription of anticoagulant therapy is not made solely based on a determination of stroke and bleeding risks.

## The LARIAT Device Offers a Percutaneous Option to Reduce Ischemic Stroke in Patients With Atrial Fibrillation

Written by John Otrompke

In patients with atrial fibrillation (AF), ~90% of emboli are thought to form within the left atrial appendage (LAA). Since AF is the number one cause of stroke in older adults, some physicians have hypothesized that removing or isolating the LAA may be an effective treatment option to reduce the risk of embolic stroke. This is especially applicable to those patients who are poor candidates for anticoagulants, according to Hakop Hrachian-Haftevani, MD, Baptist Health System, South Miami, Florida, USA.

The United States Food and Drug Administration (FDA)-approved LARIAT device is used for percutaneous LAA closure. This device has been used in more than 1400 patients with a closure rate of 98%.

The device is deployed in a series of steps. First, a wire/catheter system is used to cross the atrial septum and place a special wire containing a deflated balloon into the LAA. At the same time, a silk tie (ie, the lariat) is placed around the neck of the LAA from the outside, by a small device inserted via a small incision made in the chest wall. Next, the balloon is inflated inside the LAA to allow placement and tightening of the lariat around the neck of the LAA (proximal to the inflated balloon). The lariat is then further tightened, tied, and cut resulting in isolation of the appendage from the left atrium.

After the procedure, the surgical area is permitted to drain for 24 hours with monitoring and/or management of pericarditis. Perioperative antibiotics are used in some cases and anticoagulation is continued for a few months after implantation. Isolation of the appendage results in atrophy of the appendage within a year.

The use of preoperative imaging is essential for assessment of the neighboring anatomy in patients planned for this procedure. Unique anatomical characteristics of the appendage must also be taken into account, such as whether it has a single lobe or windsock morphology (technically easier) or whether it has a chicken wing, broccoli, or cauliflower-like morphology. These latter appendage morphologies tend to be larger and are associated with advanced age and existing blood clots.

Despite its benefits, the LARIAT procedure is not for everyone. Patients who should not have the LARIAT procedure include those who have had prior chest radiation, heart surgery, or have developed scars around the LAA and surrounding pericardial region for any other reason. This is because the device requires freedom of movement within the pericardial space. In addition, the upper size limit of the appendage is for this procedure is 4 cm.

For patients with AF that cannot take anticoagulant drugs, the LARIAT device offers an FDA-approved intervention that may be a permanent option to reduce the risk of associated embolic stroke.

## Caribbean Physicians Triage Network Improving Quality

Written by John Otrompke

A large integrated network of physicians and other health care providers in the Caribbean, South Florida, and Central America has grown to 1200 providers and at the same time is reducing costs of care, according to a presentation by Kester Nedd, DO, Jackson Health System International Program, Miami, Florida, USA. The network was founded to improve barriers associated with 1) triage of patients; 2) scarcity of certain specialists; 3) case management; and 4) insurance issues that affect delivery of effective care in the region.

The network began at the Jackson Memorial Hospital System and the affiliated University of Miami Miller School of Medicine Health System. Following a successful 1.5-year pilot program, it has grown to include providers in the Bahamas, Barbados, and Panama. The program is driven by physicians, who use algorithms to identify patients at risk for catastrophic events, and communicate with other physicians of the same specialty to triage patients to centers of excellence (COE) in the region, according to Dr. Nedd. The network will be incorporating telemedicine to aid in this effort.

Rapid triage can be critical. For example, in acute vascular cases with potential neurological impact (eg, carotid artery dissection), care at a COE early has the potential to prevent a cascade of events leading to further complications (eg, intracerebral hemorrhage). While triage issues in catastrophic cases can be difficult even in the United States, the existence of protocols developed under the context of accreditation and certification programs and in consideration of medical-legal risk mitigation facilitates more effect decision-making [Bullock MR et al. *J Neurotrauma* 1996].

When seeking to transfer a patient with a complex or potentially catastrophic case, physicians should be familiar with the accepting institution and its staff. Building familiarity with neighboring COEs has proven challenging, yet is necessary to be able to direct patients with complex conditions at centers with the highest levels of expertise. This has ancillary economic benefits, for countries like Panama for example by increasing medical tourism. Difficulty in the Caribbean region results in some cases because the payments associated with these transfers, are limited by the lack of health insurance in the region. In those with insurance, difficulties may also arise especially with insurance companies, not only due to inaccessibility during off-hours but also potentially by poorly trained personnel who must make decisions influencing the care of critically ill patients.

Specialists are better able to share information when they speak with other practioners of the same speciality, according to Dr. Nedd. He added that new reimbursement mechanisms should greatly facilitate the creation of regional COEs by physicians and healthcare systems secondary to more predictable payment sources.

While new systems for triage may be especially important in the context of cerebrovascular complications, other brain injury, and trauma, the concepts used may be readily transferred to other areas of emergency medicine. While COEs in the Caribbean have provided new patient treatment opportunities, rapid planning is the essential underpinning of a successful transfer.

## Percutaneous Repair of Aneurysms Now Possible Even in Obese or Difficult Patients

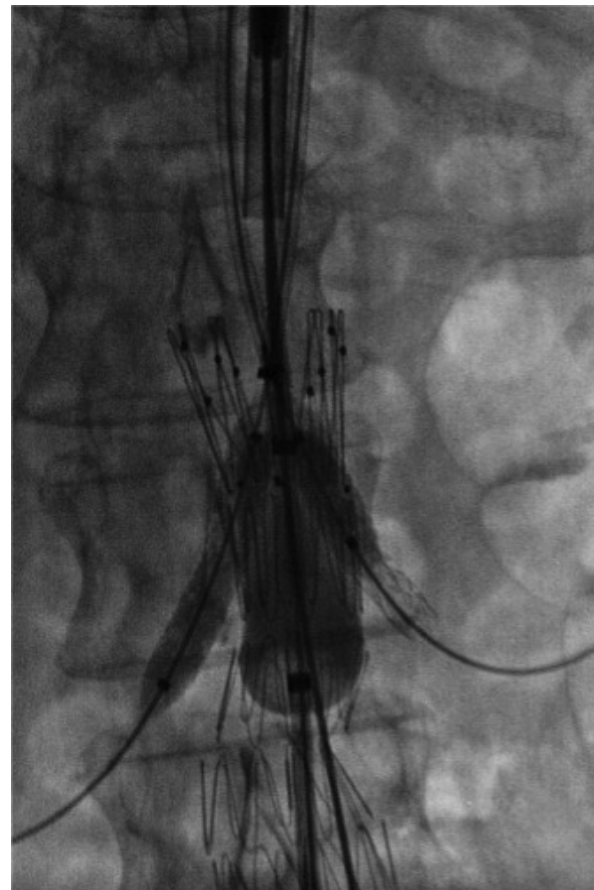
Written by John Otrompke

The majority of aortic abdominal aneurysms (AAAs) in the United States are repaired using an endovascular approach. Evolving techniques and technology have expanded the population eligible for an endovascular approach making it possible to use this approach in patients

who were previously not considered good candidates according to Patricio Rosa, MD, Delray Medical Center, Delray Beach, Florida, USA. Dr. Rosa also noted that novel techniques and devices may further increase the number of endovascular procedures .

AAAs occur in ~2% to 5% of men aged >60 years and result in 9000 deaths per year in the United States. Open surgical repair was been the treatment of choice for many years; however, this procedure is associated with a high morbidity and mortality in some patient populations. For example, some studies have shown that the 1-year mortality of high-risk patients aged >70 years with chronic obstructive pulmonary disorder who undergo a suprarenal cross clamp can be as high as ~30% [Beck A et al. *J Vasc Surg* 2009]. Therefore, physicians have developed the chimney technique (stenting side branches), which is one technique that allows the physician to perform the procedure through an endovascular approach (Figure 1).

Figure 1. The Chimney Technique



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