

Vascular Surgery News

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THE VASCULAR SURGERY TEAM



Dr. Daniel Bertges, Dr. Julie Adams (front row left to right)

Dr. Andrew Stanley, Dr. Matthew Alef, Dr. Georg Steinthorsson (back left to right)



Dr. Matthew Alef joins the Vascular Surgery Team at The University of Vermont Medical Center

In August of 2014 Dr. Matthew Alef joined our vascular team here at the University of Vermont Medical Center. Dr. Alef comes here having completed his training in vascular surgery at the Beth Israel-Deaconess Medical Center in Boston, Massachusetts. He has a clinical expertise in the endovascular management of complex aortic aneurysmal disease and in the minimally invasive methods of treating carotid disease.

A native of the Chicago area, Dr. Alef obtained his BA in biology at Emory University in Atlanta, Georgia. He then went on to Rush University in Chicago for medical school and the University of Pittsburgh Medical Center for his general surgery training. He has an interest in ice climbing and endurance events. In his short time in Vermont he has fully engaged the fitness community in these pursuits.

Diagnosing Carotid Artery Disease

Dr. Matthew Alef

Each year in the United States approximately 800,000 people experience a new or recurrent stroke. Carotid artery disease is responsible for nearly 20-30% of these. The risk factors for ischemic stroke include many of the risk factors for generalized atherosclerosis: family history, age, dyslipidemia, tobacco, hypertension, diabetes, and existing vascular disease. Additionally, a prior transient ischemic attack (TIA) and carotid artery atherosclerosis are significant risk factors.

Carotid disease may be asymptomatic or symptomatic after a stroke or TIA is diagnosed. A TIA manifests suddenly, without any prodrome, and usually resolves within minutes. The most common symptoms of TIA include: transient monocular blindness or field deficits, dysarthria, dysphasia, aphasia, monoparesis, hemiparesis, and hemisensory deficit.

In the evaluation of a patient with possible cerebrovascular disease a directed history and physical examination are essential. Special attention should be given to the neurological exam, discrepant arm pressures, atrial fibrillation, and carotid bruits.

The Society for Vascular Surgery advocates carotid screening in patients older than 55 years with cardiovascular risk factors. Duplex Ultrasound is the first-line modality for screening. Although screening everyone is not cost-effective (5% yield for 80-99% stenosis), the yield is increased in those patients with carotid bruit, history of TIA/stroke, and left mainstem coronary disease.

Once carotid disease is diagnosed, treatment includes lifestyle changes, medication, and intervention. Lifestyle change is primarily tobacco cessation. Control of hypertension, diabetes, and dyslipidemia via both lifestyle and medication should be done. Best medical therapy for carotid disease includes anti-platelet and statin. The ease and cost-savings of aspirin have made it the anti-platelet drug of choice. In addition to their cholesterol-lowering properties, statins also exert a significant beneficial effect on carotid disease progression and stroke rates. Finally, either carotid endarterectomy or carotid stenting may be necessary for severe or symptomatic disease.

Understanding Abdominal Aortic Aneurysms

Dr. Georg Steinthorsson

Abdominal aortic aneurysms (AAA) are the 13th leading cause of death in the United States, with more than 15,000 deaths and 53,000 annual discharges. In general, the prevalence is more common in men than women and is approximately

4-5% higher in men over the age of 50.

An aorta larger than 3cm would be considered aneurysmal.

The major risk factors for AAA are age over 65, male sex, smoking, and family history of aneurysm among first degree relatives. Aneurysm related death equates



with rupture and varies directly with the aneurysm size, history of smoking and is more prevalent in women. Fatality with rupture is approximately 75%.

Small aneurysms in general are benign with an aneurysm in the size range of 4.5cm-5cm carrying a rupture risk of 1% per year. These do not require repair but careful follow up is essential. How frequently follow up is done depends on the initial size of the aneurysm and the rate of growth and is usually done every 6-12 months. The size criteria for aneurysm repair in men is 5.5cm and 5.0cm in women with a rupture rate of about 10% per year.

An aneurysm greater than 6cm is considered urgent.

The study of choice is a Duplex Ultrasound; cross-sectional imaging is usually not required until a decision to treat has been made.

The treatment can either be catheter based endovascular stenting or open surgery depending on anatomy, age and co-morbidity. Outcome in general is excellent with low mortality and morbidity.

Currently, Medicare part B will cover a one time abdominal aortic aneurysm screening in patients with family history of AAA and in men age 65-75 who have smoked at least 100 cigarettes during their lifetime.

VENOUS DISORDERS

DR. DANIEL BERTGES

The Vascular Surgery Team offers treatment for a range of venous disorders from surgery for symptomatic varicose veins due to chronic venous insufficiency to treatment of acute deep vein thrombosis.

Patients with symptomatic varicose veins should first be managed with daily compression stocking for a period of at least 3 months prior to considering surgery. Not only is this a diagnostic tool, but it is also a requirement by all insurance companies.

Radiofrequency ablation of the greater saphenous vein, a minimally invasive technique, is the mainstay of surgical treatment and can be expected to provide symptomatic relief for patient. Stab phlebectomy and sclerotherapy are also treatment options for patients.

For patients with varicose veins, a venous insufficiency study to examine valvular competency will be required prior to the consultation with a vascular surgeon. This can be done in the Vascular Lab prior to the actual appointment, most often on the very same day eliminating multiple visits to the office.

Patients with deep vein thrombosis (DVT) are typically managed by the primary care with anticoagulation. More extreme cases of DVT involving the iliac and femoral veins may be managed with venous thrombolysis. This is best done with a formal vascular surgery consultation. If you suspect DVT a venous duplex should be ordered.

Identifying Claudication in Your Patients**Dr. Julie Adams**

Lower extremity pain with ambulation is a common reason for patients to seek medical care. While not always secondary to arterial disease, claudication symptoms can range from mild to severe and can lead to a decreased ability to work, complete activities of daily living, or simply enjoy life to the fullest. Arterial claudication can sometimes be difficult to differentiate from neurogenic claudication, but classic features include a sensation of muscle pain, cramping, or fatigue that is provoked by ambulation and relieved by rest. It should never occur at rest or be prompted by prolonged sitting or standing. The symptoms are highly predictable and reproducible; patients shouldn't have them one week and not the next when doing the same activities. The pain is often worse when going up an incline or climbing stairs. Some patient may report pain in the hips or buttocks, which could be secondary to an iliac stenosis, but the most common location of pain is in the calf, where symptoms could occur from either aortoiliac or femoropopliteal disease.



Patients with claudication are at an increased risk for death from cardiovascular disease and stroke, and so risk factor modification does play a central role in treatment. The life expectancy of a claudicant is reduced, not because it bothers them to walk, but because they have peripheral artery disease (PAD) and are therefore much more likely to die of concomitant cardiac or cerebrovascular disease. The initial treatment offered to most claudicants is risk factor management and lifestyle modification. Active smokers are strongly encouraged to quit and are given information on available services that can help them. All patients are encouraged to exercise as this can help build collaterals and decrease the severity of symptoms. Many patients benefit from pletal, which has been shown to increase the walking distance before the onset of symptoms. Patients on a PPI are given half the regular dose of pletal, and side effects of headaches, diarrhea, and palpitations may limit its use. We also avoid pletal in those with a history of congestive heart failure.

The initial evaluation of a patient with claudication should include an assessment of how their symptoms limit their life and what their risk for intervention is based on their anatomy and underlying medical comorbidities. When this risk/benefit ratio favors symptom reduction and improved quality of life, many are offered invasive procedures, but it is important for them to understand that claudication is not limb-threatening.

Most patients who are seen in the vascular clinic will have a noninvasive test that helps guide this assessment of risk/benefit. PVRs or pulse volume recordings along with Doppler interrogation involve placing blood pressure cuffs at several points along the legs to obtain a pressure and waveform that can be used to assess for vascular disease. That combined with an arterial duplex to further investigate abnormal findings can provide a lot of information about what might be required to successfully relieve symptoms. Some patients, e.g., with absent femoral pulses, might benefit from a CT Angiogram to better define their options for revascularization. Those that are thought to have an option for percutaneous angioplasty and/or stenting may be scheduled for a diagnostic angiogram with the intention to treat lesions at the same time. The treatment required to resolve symptoms of claudication can range from an aortobifemoral bypass to a quick balloon angioplasty of a focal stenosis.

Patients undergoing invasive interventions are maintained on aspirin indefinitely and often have Plavix added after a percutaneous intervention. Some patients have diffuse disease and are high-risk for intervention and might be solely managed medically.

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The David Pilcher Vascular Lab

Located on the 5th Floor in the Main Pavilion, The David Pilcher Vascular Lab is an integral part of the Vascular Surgery clinic. Our fully accredited Registered Vascular Technologists (RVT's) are able to scan patients right in the office on the same day as their appointments with a vascular surgeon. The imaging is done without the utilization of contrast dyes or vascular punctures.

Care of our patients involves accurate diagnosis and management of diseases that threaten the limbs. Diseases such as carotid disease, aortic aneurysms, lower extremity occlusive disease, renal artery occlusive disease and venous disease among the disease process that are imaged in the lab.

To refer to the vascular clinic, outside providers should fax referral to (802) 847-3581. The vascular surgery office staff will call your office with a date and time for appointment.