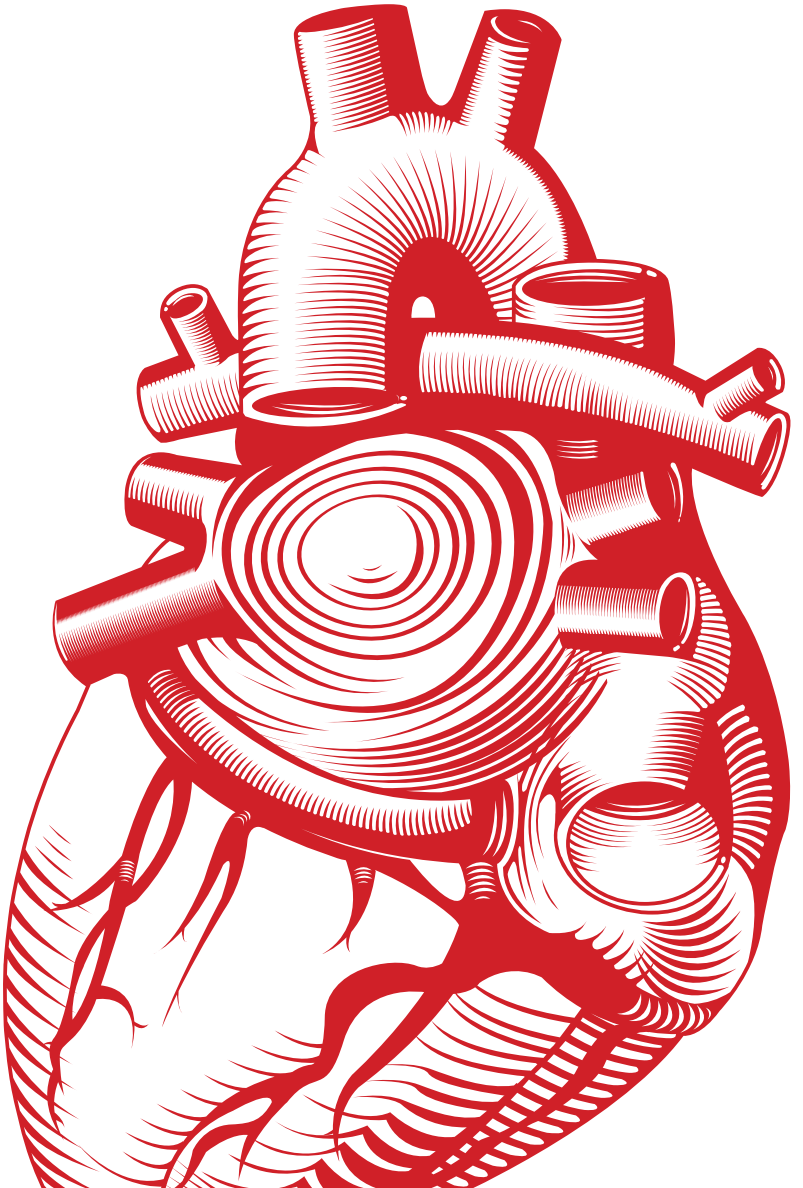
the PULSE

Physician's Newsletter

SPRING 2012

JACKSON HEART



DISEASE DOWNLOAD

Peripheral Arterial Disease

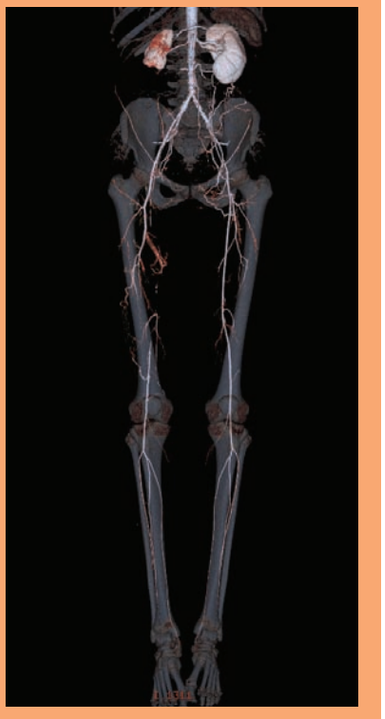
By: J. Gray Bennett, M.D.

Peripheral arterial disease (PAD) is a chronic, progressive, systemic disease. It affects approximately 25% of men and women ages 50 and older in primary care medical practices. PAD is likely to become more common as the population survives longer with chronic diseases.

Intermittent claudication is the most classic symptom. However, the vast majority of patients has either atypical symptoms or is even asymptomatic. Only 15% of patients with a diagnosis of PAD will have claudication, with the prevalence of intermittent claudication being around 5% in the general population.

The diagnosis of PAD should be made both clinically and through diagnostic testing. The symptoms of PAD include: dull cramping or pain in the muscles of the hip, thigh, or calf when walking, pain at night when legs are elevated in bed, changes in pulse, slow healing or non-healing of wounds, sores on heels or ankles or other pressure areas that do not heal, and pain in the toes when at rest or when lying flat. However, there may be no symptoms during the early stages of PAD, so many people do not know they have it until they are diagnosed with coronary artery disease (CAD). The most common first symptom is pain. Pain or numbness may be experienced in the calf, foot, thigh, or buttock. Pain may be minor to severe.

The risk factors for PAD are the same as for CAD including: cigarette smoking, diabetes mellitus, hyperlipidemia, and hypertension. This would explain why most patients with PAD have concomitant CAD. In fact, as high as 1/3 of patients with severe PAD have three-vessel CAD that could need revascularization. This would include the potential need for coronary artery bypass grafting surgery. There is also an association between PAD and cerebrovascular disease, which should be considered. Given those numbers and associations, the cost could be high for the patient to go undiagnosed.

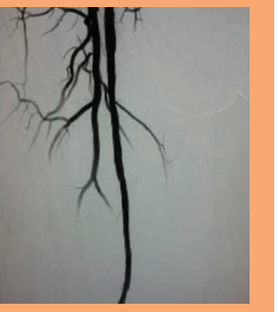


It is imperative to test for PAD even in the asymptomatic patients. The American Diabetes Association recommends screening in all diabetics greater than 50 years old, and all smokers who are 50 years and older should be screened as well. Lastly, a patient who is 70 years and older should be screened.

The measurement of ankle systolic pressure is the most valuable physiologic test for assessing the arterial circulation in the lower limb. Depending on the patient's symptoms and severity of the disease, other testing may be warranted. At the Jackson Heart Clinic we prefer performing a CT angiography in the office as a way to give us a road map of the lower extremity arterial tree. If an invasive revascularization procedure is planned, the CT also allows us to be more selective in our vascular access site and limits the type of angiograms we have to perform.

> Only 15% of patients with a diagnosis of PAD **will have claudication,** with the prevalence of intermittent claudication being around 5% in the general population.

Revascularization procedures offered at the Jackson Heart Clinic include but are not limited to: angioplasty, thrombectomy, atherectomy, and stenting of the peripheral vessels. However, only about 10% of PAD patients require revascularization. The vast majority need risk factor modification, a big part of which is medical therapy. This would include traditional therapies such as aspirin, anti-hypertensives, and statins.



PAD is a debilitating disease that is a marker for more fatal cardiovascular events (i.e. strokes and myocardial infarctions). Although PAD is common, it is substantially under-recognized and under-treated.The diagnosis of PAD is important as its treatment can lead to an increased quality of life for the patient, allowing him or her to live a longer life.

PHYSICIANS CORNER

Do you have a patient who could use the services of Jackson Heart Clinic? We offer a wide array of cardiovascular services, including cardiac catheterization, electrophysiology, interventions, and many forms of diagnostic testing. At Jackson Heart Clinic, we offer a physician referral line and multiple locations for your convenience. Call us at 601-982-7850 for more information.

The physicians of Jackson Heart Clinic:

James C. Hays, M.D.
Quinton H. Dickerson, M.D.
McKamy Smith, M.D., Ph.D.
Jefferson A. Fletcher, M.D.
R. Harper Stone, M.D.
David H. Mulholland, M.D.
Jimmy W. Lott, M.D.
J. Clay Hays, Jr., M.D.
Richard D. Guynes, M.D.
D. Russell Young, M.D.
V. Reid Cotten, M.D.
J. Gray Bennett, M.D.
William H. Crowder, M.D.
Keith D. Thorne, M.D.
Michael R. McMullan, M.D.
Douglas D. Harkins, M.D.
S. Todd Lawson, M.D.
James L. Warnock, Jr., M.D.
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B. Judson Colley III, M.D., MPH.
Brad LeMay, M.D.
Philip L. Chustz, M.D.
W. Arthur Jones, M.D.
William K. Harper, M.D.
Alfredo Figueroa, M.D.
John Bellan, M.D.
J. Michael Bensler, M.D.

FOUNDATION NEWS

JACKSON HEART FOUNDATION

Helping the Community

By: Elizabeth Lynch, Executive Director

The Jackson Heart Foundation is a 501(c) 3 non-profit organization that was founded in August of 2009 with the mission to lead the fight against heart disease in our community through education, prevention, and early detection. Since 2009, the foundation has focused on doing just this through many programs, screenings, and partnerships with other organizations.

HeartBeats of Jackson is our annual cardiovascular health screening. We are proud to say that in three short years, this event has touched nearly 1,500 lives in Jackson, MS, and the healthcare providers have performed tests costing approximately $1,861,500. Screenings include EKG's, ABI's, Echocardiogram, lipid panel, and a doctor consultation. Without the help of the local hospitals, this event would not be what it is. The medical staff involved in performing the screenings includes about 25 cardiologists and approximately 100 nurses, medical technicians, lab technicians, and other personnel. HeartBeats of Jackson has been extremely successful and has received much support from the community.

We've also enjoyed working with Beyond Therapy Pediatric Group on their Youngest Loser program. Also, The Jackson Heart Foundation is thrilled about partnering with the American Heart Association by sponsoring an educational garden at a local Jackson public school.

A huge thank you goes out to all of the companies and individuals who helped raise funds and participated in last year's Young at Heart Gala that was held at the home of Dr. and Mrs. Harper Stone. Without the support, the Jackson Heart Foundation would not be able to host screenings, provide educational talks for the general public, and sponsor other local organizations that share the same mission we do.

For more information on the Jackson Heart Foundation, including plans for the future and giving opportunities, please contact us at 601.718.5172.

Heartbeats 2012 Results

387	People Signed Up
380	People Screened

Abnormal Results

Blood Pressure:	120	Cholestek:	243
EKG:	56	Echo:	16
ABI:	83	Carotid:	6

> Our youngest generation is at risk because of childhood obesity.
>
> *-Clay Hays, M.D*

MISSISSIPPI HEART FOCUS

Mississippi Healthcare Alliance… Saving Lives in Mississippi

By: R. Harper Stone, M.D.

Mississippi leads the nation in cardiovascular morbidity and mortality, accounting for 41% of all deaths in 2001. Approximately 400,000 people a year will suffer from ST-elevation myocardial infarction (STEMI) which also carries a high risk of death and disability. Unfortunately, over 30% of STEMI patients fail to receive any form of reperfusions therapy, which leads to worse outcomes for those patients.

The Mississippi Healthcare Alliance (MHCA) was formed in August of 2009, to combat problematic disease processes that plague our state. Our first goal was to form a system of care for STEMI heart attacks that would standardize initial treatment in all emergency rooms in our state. This was done to remove disparities in initial care and secure a better outcome for each patient in any size emergency room, large or small, throughout the state. The effort to form Mississippi Healthcare Alliance was a huge undertaking as various hospitals, physician groups and EMS personnel had to join together as one force, rather than as individual competitors to improve treatment and outcome of STEMI heart attacks in Mississippians.

The system of care includes non-PCI centers, (smaller hospitals that do not perform stents, but can give blood clot busters), EMS, (emergency medical services such as ambulances and helicopters), and PCI centers (larger hospitals that perform stents). The goal is to obtain reperfusion within 90 minutes of hospital arrival or within 120 minutes if transferred to PCI center. Mississippi Healthcare Alliance utilizes quality measurement through American Heart Association's "Get with the Guidelines/Action Registry" to improve quality based on quantified statistics gathered at each hospital. This gives each hospital vital information to be able to compare to other hospitals on a state and national level, thus allowing for quality improvements at individual hospitals.

Mississippi has recently become the second state in the nation to have a STEMI system of care recognized by CMS (Medicare/Medicaid). This is a notable accomplishment for a state that leads the nation in cardiovascular disease. We are trying to change this startling statistic with better outcomes through standardized treatment protocols. It is the hope of MHCA that Mississippi sets an example for other states to follow.

The next phase of MHCS is public education. Patients in Mississippi delay their emergency calls for help longer than any other state. In addition, less than 50% of patients with chest pain and/or heart attacks arrive in emergency rooms via ambulance. This leads to several hours delay in treatment, which leads to worse outcomes. The MHCA goal is to educate the public on signs and symptoms of heart attack and to make the 911 call immediately as symptoms occur. Earlier treatment leads to better outcomes.

The Mississippi Healthcare Alliance is presently working on a Stroke system of care to be distributed statewide, and when this is implemented, Mississippi will become the first state in the nation to have a statewide system for both Stroke and STEMI.

HEARTBEAT OF THE MATTER

Syncope from an Electrophysiology Standpoint

By: Valerie Bailey, NP-C

Syncope is a common chief complaint among patients as syncope occurs in up to 50% of the population. Approximately 48% of all patients who have syncope have an undiagnosed cause, therefore it is imperative to obtain a thorough medical history, description of the event, and clinical evaluation. Syncope is defined as a sudden transient loss of consciousness due to cerebral hypofusion and loss of postural tone and motor control with spontaneous recovery.

Vasovagal syncope is often precipitated by a "trigger" which activates the autonomic nervous system and causes an intense vagal response and transient decrease in cardiac output. The subsequent peripheral withdrawal of sympathetic tone and increase in parasympathetic tone manifests as bradycardia and/or vasodilation. Typically, the patient has prodromal symptoms such as nausea, vomiting, lightheadedness, visual disturbances, and weakness.

Hypertrophic obstructive cardiomyopathy (HOCM) can be the cause of syncope by a sudden drop in preload in the setting of dehydration or increased heart rate. Dynamic obstruction, as with a mobile mass such as a myxoma obstructing the mitral valve, and fixed obstruction such as chronic pulmonary hypertension or pulmonary embolus can also result in syncope.

> "Tilt table testing may be helpful in determining reflex syncope."

Syncope can be the result of arrhythmias. Patients with arrhythmias often present with palpitations, brief loss of consciousness, and no prodromal symptoms. Ventricular tachycardia (VT) can be the initial manifestation of an acute myocardial infarction. Supraventricular tachycardia (SVT) such as atrioventricular nodal reentrant tachycardia, atrial fibrillation, and atrial flutter, can cause syncope due to rate response and decrease in peripheral perfusion. Brady arrhythmias, such as AV nodal block and sinus pauses, are frequently associated with syncope.

Electrocardiogram is the first tool used for diagnosis. Tilt table testing may be helpful in determining reflex syncope. Ambulatory cardiac monitoring with holter and event monitors can help correlate symptoms with arrhythmias. Exercise stress testing is important to determine the cause of syncope when exertional syncope is suspected. When symptoms are suggestive of cardiac cause of syncope but no identifiable cause is revealed by noninvasive testing, an intracardiac electrophysiology study is considered. The EP study is helpful to uncover underlying conduction disease and arrhythmias.

TECHNOLOGY UPDATE

New Procedure Offered with Artificial Aortic Heart Valve

By: William H. Crowder, M.D.

The Jackson Heart Clinic is pleased to announce the launch of the Edwards Lifesciences SAPIEN aortic heart valve. This revolutionary device allows implantation of an artificial aortic valve by a heart catheterization-type procedure. Receiving FDA approval last November, the Jackson Heart Clinic, in partnership with Baptist Healthcare Systems, was one of the few institutions across the country and the only place in Jackson to receive permission to implant the device. This new procedure will give a new lease on life for the thousands of patients with severe, lifestyle limiting aortic valve stenosis who are not operative candidates.

The Valve Center is being formed to evaluate these inoperable patients. This center includes a collaboration between the cardiologists and cardiovascular surgeons with the formation of a heart valve clinic. The initial focus will be on aortic valve stenosis.

The first step in the process of patient enrollment includes screening the patient to see how severe their aortic valve stenosis is. "Patients typically need to have a classification of severe aortic valve stenosis which includes a valve area of less than one square centimeter, a velocity across the valve of 4 m/sec, and a mean gradient of 40 mmHG." says Dr. William Crowder. "The starting point at the valve clinic will be confirmation of these numbers with special measurements to see what size prosthetic valve they would require."

"At this time, the FDA has only approved this procedure for inoperable patients and these criteria must be met," says William Harris, cardiac surgeon. Patients undergo a laundry list of tests to look at cardiac morphology, existence of coronary disease, size of the iliac vessels, and tests of exercise tolerance. The valve clinic allows most of these tests to be organized and performed during a single day.

Once the process is complete the patient will be scheduled for the procedure. The procedure will take place in the hybrid operating suite at the Baptist hospital in Jackson. This state-of-the-art facility contains the best of both elements from the catheterization lab to the standard operating room. The surgeons and interventional cardiologist will perform the procedure together. The imaging specialists will be taking real time echo images throughout the case. This level of collaboration in treatment of complex cardiac issues will define the future or cardiovascular care. The team will be a well-oiled machine, constantly monitoring the patient and ready to deal with any problems that may arise.

The treatment of valvular heart disease and structural heart disease is an evolving process, and it is important to have patients evaluated in a clinic that offers all of the latest technology. The Jackson Heart Clinic is proud to be the only cardiology group in the region offering this technology. This valve clinic will be the bridge to treating other heart valves with minimally invasive technology, all for the common goal of getting our patients feeling better in the least amount of time.

Upcoming Events

May 4 - Go Red Luncheon for Women w/ American Heart Association
May 5 - 2012 Cardiovascular Update CME at Embassy Suites
May 19 - Dragon Boat Regatta 2012 at Old Trace Park

June 7-10 - MSMA Annual Conference
June 16 - The Governor's Run

July 15-18 - MAFP Conference in Destin
July 16-22 - True South Classic
July 19-21 - Young Physicians Conference in Destin

Save the Date

September 29 - Young at Heart Gala

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