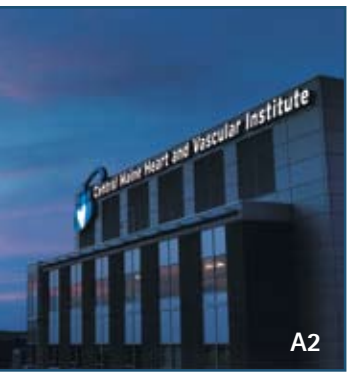
Central Maine Medical Center
The Central Maine Medical Family

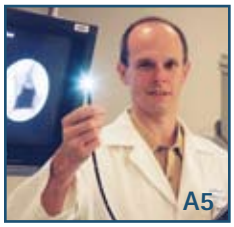
Central Maine Medical Center

Physician Update



A2


A4


A5

Adult Valvular Heart Disease: Aortic Stenosis

By Robert M. Bender, D.O., FACOI, FACC, cardiologist, Central Maine Heart and Vascular Institute

Robert M. Bender, D.O.

Much of the medical community's focus, with regard to heart disease, is on coronary artery disease. This is not surprising as it is the leading cause of death of adults in the U.S. Less common, but no less important, however, is the evaluation and treatment of patients with valvular heart disease.

In patients with severe valve disease, medical therapy generally affords only palliative benefit. On the other hand, in the appropriate candidate surgical treatment affords the opportunity to effect a dramatic improvement in both symptoms and prognosis. In fact, delaying surgery in the appropriate candidate with critical valve disease can result in significant structural and functional changes in the heart that may not improve once surgical correction is performed.

One of the most common valve lesions physicians manage is aortic stenosis. This frequently comes to light when a murmur is detected for the first time or a patient who is seen for the first time has a known diagnosis of aortic stenosis that was only mild when initially diagnosed and the patient has remained asymptomatic since the diagnosis was made. Regardless of the stage of the valve disease when first encountered, it is important to realize that valve disease is not a static process and although the progression of stenosis may be very slow it invariably gets worse.

Aortic valve stenosis is most commonly due to degenerative, calcific change and thus seen most commonly in the elderly and very elderly. It is also seen in patients with a congenitally abnormal aortic valve (such as a bicuspid aortic valve), who do not have significant stenosis of the valve at birth but who develop slow but progressive narrowing of the valve over long time periods due to accelerated degeneration. These patients not uncommonly present in middle age and not uncommonly are identified by their primary physician due to auscultation of a heart murmur.

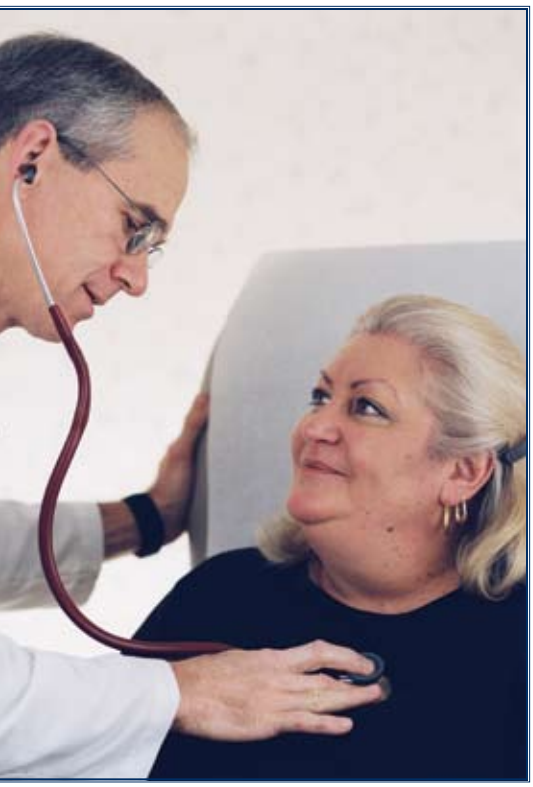
Aortic stenosis is a surgical disease. There is no definitive evidence that medical therapy can alter the natural history of, or reverse the severity of, aortic stenosis.

Echocardiography is generally the non-invasive test of choice in evaluating patients with valvular heart disease and in addition to assisting with the initial diagnosis after a heart murmur is identified it is a relatively easy and fairly accurate means of following patients once they have been identified, assuming they do not yet require valve surgery. The echo exam allows for estimation of the severity of the valve stenosis as well as evaluation of ventricular function and concomitant valve disease. All patients with a diagnosis of, or suspected, aortic stenosis should have an initial echocardiogram.

Aortic stenosis is a surgical disease. There is no definitive evidence that medical therapy can alter the natural history of, or reverse the severity of, aortic stenosis. On the contrary, patients with severe aortic stenosis may tolerate many of the commonly used cardiac medications poorly. Medications used for treatment of hypertension or heart failure, such as ACE inhibitors (or similar vasodilating drugs) and beta-blockers, can occasionally result in worsening of symptoms or marked hypotension. The patient with a diagnosis of aortic stenosis needs to have routine monitoring over time. The more severe the stenosis, the closer the patient should be monitored.

Patients with severe, but asymptomatic, aortic stenosis should be counseled regarding the importance of promptly reporting the onset of symptoms (dyspnea, chest pain or syncope). Patients with moderate aortic stenosis should

have an initial cardiology consultation and a routine echo every one to two years. Those with severe but asymptomatic stenosis should be followed closely by a cardiologist and have an echo performed at least on a yearly basis.



Robert M. Bender, D.O.

The general approach to patients with severe stenosis has been to recommend surgical valve replacement once symptoms develop, the most common of which is dyspnea. Less commonly, surgery may occasionally be recommended for the asymptomatic patient with severe aortic stenosis. Reduction of left ventricular function or rapid progression of stenosis detected by echo may be an indication for surgery in the asymptomatic patient.

Because this valve abnormality is not uncommon amongst the very elderly, it has presented a conundrum for practitioners as this group of patients is frequently thought to be poor surgical candidates due to their advanced age; however, if these patients do not have other severe co-existent heart disease in conjunction with the aortic stenosis or other significant co-morbid medical problems, they may be surgical candidates with an acceptable operative risk.

There are two issues regarding aortic stenosis that are worth discussing from a medical standpoint. Earlier this year the American Heart Association revised its recommendations regarding antibiotic prophylaxis for endocarditis. It is no longer recommended that patients with isolated native valvular heart disease receive antibiotics prior to dental work, unless there is a history of prior endocarditis or cardiac transplantation. The second medical issue and one that is controversial regards the ability of statin drugs to slow the rate of progression of stenosis of the aortic valve. There have been mixed results in previous trials and at present this issue is unresolved.

For a complete review of the most recent recommendations regarding antibiotic prophylaxis for endocarditis, visit the American Heart Association website or review the original article in Circulation (e-published 4/19/07).

Central Maine Heart and Vascular Institute
1-800-760-6622

Central Maine Heart Associates
207-753-3900

What do Myringotomy tubes do?

By Michael P. Joseph, M.D., otolaryngologist, Central Maine Ear, Nose and Throat

Michael P. Joseph, M.D.

Myringotomy tubes are put in the ear drum to maintain an opening to let air into the space behind the ear drum. These tubes are used when there are problems with ear infections or hearing loss.

The eustachian tube connects the nasopharynx, the area behind the nose, with the middle ear, the space behind the ear drum. The eustachian tube is normally closed, but it opens very frequently to let more air into the middle ear. If the eustachian tube does not open enough, the air in the middle ear is absorbed and there is negative pressure and then fluid seeps from the blood vessels into that space. The person might notice some decrease in hearing or might feel fluid in the ear.

In children, eustachian tube problems are more frequent because the child's head is smaller and the eustachian tube is smaller. A cold or allergies can cause swelling of the eustachian tube lining so that it does not open. There is no medicine that will make the eustachian tube work better. Antihistamines, vasoconstrictors, nose sprays, and medicines by mouth have been shown not to improve eustachian tube function. They even seem to delay recovery.

If the fluid in the middle ear gets infected, then there is pain. An antibiotic is appropriate to treat the infection. But the antibiotic will not make the fluid go away. Often the fluid persists and is infected again and again.

Fluid in the middle ear space can result in decreased hearing. Sometimes there is fluid but the hearing is normal; at other times there is fluid and a significant decrease in hearing. An audiogram is important to measure hearing.

If a hole is made in the ear drum, air can enter the middle ear space from the ear canal. Even though fluid may drain out at first, if air is allowed in, there should soon be no fluid. When a hole is made, it will usually close within a few days. The tube is put in the opening to keep it from closing.

The tubes are gradually pushed out. Normal ear drum growth lifts them up and moves them to the side of the ear drum. They will usually come out and move down the ear canal and fall out. What type of tube is chosen and where it is placed in the ear drum can influence how long the tubes last. While the tubes are in the ear drum, there is usually a long interval without ear infection.

While the tubes are in the ear drum, it is important to keep water out of the ear. If water gets in the ear canal there can be an ear infection.

If a child does not have further problems after the tubes have come out, they do not need to be replaced. It often happens that the child has grown enough so that the eustachian tube is larger and works better. Sometimes the problems return. Then the tubes should be placed again.

Myringotomy tubes are put in the ear drum to maintain an opening to let air into the space behind the ear drum. These tubes are used when there are problems with ear infections or hearing loss.

Central Maine Ear, Nose and Throat 207-795-5726

The CMMC Thoracic Oncology Group: improving patient care, honing clinical skills

A multidisciplinary group of physicians at Central Maine Medical Center has hit full stride in its two-pronged effort to improve care for chest cancer patients while honing its members' clinical skills.

First established under the leadership of CMMC pulmonologist Evan Ramser, D.O., the Thoracic Oncology Group assumed a higher profile when cardiothoracic surgeon Carmine Frumiento, M.D., joined the Central Maine Heart and Vascular Institute shortly after its opening in 2003.

Dr. Frumiento was involved in a thoracic oncology group as part of his training and so understood first-hand the benefits it offered to both patients and physicians. With all the necessary clinical components in place at CMMC, the time was right to reinvigorate the group.

CMMC's Thoracic Oncology Group brings together the physicians who diagnose or treat cancers of the chest. The group's objective is to determine if optimum care – whether diagnostic, medical or surgical – is being provided to individual patients.

"The Thoracic Oncology Group is a forum for open communication amongst all the medical and surgical specialties that serve cancer patients at CMMC," says Dr. Frumiento. "It is a sounding board for ideas about caring for individual patients. It improves care by eliminating the lag in getting information about patients circulated to appropriate specialists."

Though he participated in a thoracic oncology group while training at Lahey Clinic, Dr. Evan Ramser says the full potential of the group process was again proven clear to him just recently. After referring a lung cancer patient to Hematology-Medical Oncology Associates, a CMMC physician practice, Dr. Ramser learned that a medical oncologist in turn referred the patient to a thoracic surgeon. When he followed up with the medical oncologist, Dr. Ramser discovered that the medical oncologist felt the best treatment option was surgery.

"After seeing the individual and reviewing the medical charts, the medical oncologist decided that surgery was the best first course of care. If the Thoracic Oncology Group had existed then, it's likely that I would have learned that the medical oncologists thought surgery was the first line of treatment. I would have then referred the patient to a thoracic surgeon. This would have made the process a little easier for the patient, expedited care, and overall would have improved the process," Dr. Ramser says.

Dr. Frumiento recounts a similar experience. "A lady was sent to me with a diagnosis of a lung mass – a carcinoid tumor with multiple nodules. I might have scheduled surgery, but after talking with the referring pulmonologist, we agreed to present the case to the group. The group agreed that the best course was to do more testing and develop plans based on these additional results."

Evan Ramser, D.O.

CMMC pathologist Michael Eng, M.D., says the group format helps its members "better define the issue we're trying to figure out." Medicine is so specialized, he says, that physicians tend to view a health issue within the confines of their own training, which can obscure the "big picture."

"There are things that I'm not trained to do," Dr. Jones says, "but I've learned from the others in the group about these aspects of care. I think this helps both the patient and the physicians."

"In a cancer diagnosis," Dr. Eng says, "we review tissue samples under a microscope and get back to the surgeon with a diagnosis. We're getting core biopsies, for example, that are little bigger than a thread and we're making humungous decisions based on that tiny sample."

Dr. Eng says the Thoracic Oncology Group provides a forum where pathologists not only participate in patient care on a cellular scale, but on a more personal level as well. "The group allows us to get closer to the patient, to give them a level of respect that's not possible when we see them only under the microscope. By participating in the group, everyone is making sure they're doing the best job they can. It provides a safety net that allows a second look at each patient's situation. When I sit down with the group and someone says 'This patient has a history of previous cancer,' I may look at the sample I recently examined in a totally different way. When all that medical expertise comes together as the Thoracic Oncology Group, it comes together to serve the patient."

CMMC radiologist John Bennett, M.D., agrees that a multidisciplinary review "allows for fuller and better discussion of the case" while promoting "personal growth, from an academic perspective. We learn from our colleagues in the other disciples who may offer a different view of the patient and the treatment process."

"I think there are some synergies, some benefits for the patient no matter what discipline the participating physicians come from. Almost anytime that people with different medical backgrounds discuss a case, you're going to consider views that you might otherwise not think a lot about. The resulting patient care is greatly enhanced," Dr. Bennett says.

Grenville Jones, M.D., a radiation oncologist at CMMC's Cynthia A. Rydholm Cancer Treatment Center, explains that the Thoracic Oncology Group's deliberations can reduce treatment times for some patients because the decision-making process can be compressed when "all the major players are there."

"I had a case involving a patient in their late 70s who had a small lesion and seemed to be a marginal surgery candidate. I brought the case to the group and asked, 'Could this be safely resected?' We decided we could control the problem without surgery and moved forward with radiation treatments. This probably reduced the time to treatment by a least two weeks and was much more convenient for the patient."

Carmine Frumiento, M.D.

"There are things that I'm not trained to do," Dr. Jones says, "but I've learned from the others in the group about these aspects of care. I think this helps both the patient and the physicians."

Central Maine Medical Center

Connect

REGIONAL REFERRAL AND SCHEDULING CENTER

Eliminate the uncertainties of transferring patients for specialty care … call CMMC Connect.

- CMMC Connect, a single point of access to the physicians and services available at Central Maine Medical Center
- One-call access to specialty physicians and services
- Eliminate multiple calls and uncertainties
- Improve continuity of service for patients
- Timely feedback and discharge information
- 24-hour service, every day
- Toll-free

Talk with a CMMC Connect regional referral specialist at any time. No answering machines, no call forwarding, no delays.

877-366-7700
www.cmmcconnect.org

CMMC Connect
Regional Referral & Scheduling Center

Skilled professionals. Technical excellence. Compassionate care.