

Making The Rounds – December 2008 - Screening for Aortic Aneurysm

by Richard Kirkpatrick, MD

“Medicare covers care for injuries and illnesses, not screening tests.” That was the original concept, as the AMA and Federal Government envisioned providing a safety net to the nation’s senior citizens in 1966. I suspect that the conservatives pressed for this limitation because they knew that, if all available testing were to be covered, the whole program would go bankrupt in short order.

Over time, however, authorities have agreed that some screening tests are financially worthwhile, in that early detection of condition X, Y, or Z results in not only BETTER results, but also CHEAPER results. Hence Medicare decided to cover mammograms and pap smears for early detection of breast and cervical cancer. And then annual Cholesterol Profiles to identify people at risk for heart attacks and strokes. And periodic colonoscopies and sigmoidoscopies to find precancerous polyps. And thereafter, DEXA scans for early recognition of osteoporosis.

Now, yet another diagnosis and test has been approved. It’s Aortic Aneurysm Screening by Ultrasound. And we can do it at our Commerce Office.

I first learned about Aneurysms long before medical school. “Aortic Aneurysms” was the title of my dad’s Master’s Thesis at the Mayo Graduate School of Medicine in 1948. His classic treatise remains in the Mayo Medical Library and has been cited in many medical journal articles and texts. (Way to go, Dad!!)

The aorta is the large artery that carries blood from the heart to the rest of the body. In the chest, as it courses upward from the heart, it’s called “the ascending thoracic aorta.” At the top of it’s path, near the neck, the aorta gives off two branches, namely the subclavian arteries, which in turn become the carotid arteries that serve the brain and brachial arteries that take blood to the arms. This portion of the vessel is called the “aortic arch.”

Thereafter, the aorta heads downward—the “descending thoracic aorta.” In the abdomen, it’s called the “abdominal aorta” and it gives rise to the renal arteries that serve each kidney, before splitting into the left and right iliac arteries, below the belly button. You can feel the iliacs in your groins. They then become the “femoral arteries” in the legs.

Aneurysms are bulges. They’re caused by weaknesses in the walls of the aorta, generally aggravated by high blood pressure and high amounts of plaque on arterial walls. Eventually, they can rupture, and a ruptured aortic aneurysm is a disaster. Only about 50% of victims ever recover, and that process often entails a month in the hospital, much of it in the ICU, as organs that have been damaged by shock created when the blood normally coming to them, instead leaks out into the abdomen or chest. Many times, a instantaneous fatal heart attack is really a ruptured aneurysm with sudden death as the consequence.

The good news is that aneurysms can be fixed. The cure rate is over 95%, and hospital stays are just a few days. New technology of “endovascular repair” can be done with minimal hospital time—perhaps eventually as an outpatient procedure.

In the traditional repair, the vascular surgeon cross clamps the aorta above and below the bulge, which is then cut out. He or she then sews a piece of Dacron (camping tent material) to the top and bottom ends of the remaining aorta, and unclamps the vessel so that blood will flow again, down the new channel.

When fixed by the endovascular technique, a patch-tube is collapsed and floated up the aorta to the proper place. It is then expanded so that its beginning and end portions are in good aorta. It is attached top and bottom. In essence, it’s a new pipe flowing through the zone of the aneurysm.

So, with the enormous discrepancy between the ultimate results of a planned surgery and emergency operation, it makes sense (i.e. better and cheaper) to identify and fix the aneurysm long before it ruptures. But bulging aneurysms create no symptoms, so we can’t depend on the patient to recognize their presence.

Ultrasound and CT scans can detect, and measure the size of, aortic aneurysms. When a normally 3 cm channel becomes a 5 cm one, it’s time to talk about surgery to repair the problem. The 5cm cutoff is based on statistics showing that aneurysms almost never burst unless they’re wider than 5cm. (I should add that I have seen many people with aneurysms as big as 7 or 8 cm who never suffered a rupture.)

The simple ultrasound detection of bulges takes only a few minutes of our technician running a probe over your abdomen, looking for a bulge in the channel. If one is present, the tech measures its width.

This Medicare benefit is available to all adult patients who have ever smoked. (Smoking is a risk factor, along with hypertension and high cholesterol scores. In some cases, it is a hereditary condition.) If you would like an appointment for the test, contact any of our receptionists. You can be screened on any weekday.

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