

Expert Type A Aortic Repair Trumps the Time Factor

BY BRUCE JANCIN
Denver Bureau

SNOWMASS, COLO. — Widespread physician awareness that type A aortic dissection carries a steep mortality of roughly 1% per hour from the time of symptom onset has paradoxically hindered patient management, Dr. Andrew S. Wechsler said at a conference sponsored by the Society for Cardiovascular Angiography and Interventions.

"The sense of urgency associated with ascending aortic dissections frequently results in patients being treated by local surgeons at centers that are not experienced in the management of acute aortic dissections. I believe that the 1%-2% loss rate per hour is paid back many-fold by a 1- or 2-hour delay for emergent referral to experienced centers. Mortality will ultimately be much less for the patient years from the surgery," argued Dr. Wechsler, professor and chair of cardiothoracic surgery at Hahnemann University Hospital, Philadelphia.

That's because optimal surgical management of type A aortic dissection often requires highly complex intraoperative decision-making that is too complex for surgeons lacking extensive experience in these situations. The average surgeon tends to focus on immediate patient survival without considering other issues having a big impact on the late complication rate.

"This is what every surgeon would love to do in treating an ascending aortic dissection: They would treat a limited tear in the proximal ascending aorta above the aortic valve that ended above the brachiocephalic vessels. The operation involved is the simple insertion of a supraannular interposition graft, probably with cross-clamping of the aorta. The desire to do this operation—and its low mortality—is so great that it frequently overrides the need to do a more complex operation which would result in a much better long-term outcome for the patient," he explained.

Among the key issues that ought to be addressed—but frequently aren't—are how best to manage the distal aorta. Would a technically challenging hemiarch replacement or an even more daunting complete arch replacement yield better long-term results than a simple interposition graft? And what about the aortic valve—replace it, resuspend it, or replace the aortic root?

The most basic aspect of surgical treatment for aortic dissection is removal of the portion of the aorta containing the intimal tear. Beyond that, however, the other fundamental goals of these operations are as poorly understood by most surgeons as by nonsurgeons, according to Dr. Wechsler, editor of the *Journal of Thoracic and Cardiovascular Surgery*.

Type A aortic dissection should be thought of as more than an acute event. Late complications of surgery include redissection, formation and expansion of an aneurysm, aortic insufficiency, and organ ischemia. There is a high long-term complication rate at most cardiac-surgery centers, and the reoperative mortality rate is typically 20% or more. In contrast, the complication rate at highly experienced centers is far less, and reoperative mortalities in such centers are in the range of 4%, Dr. Wechsler continued.

The International Registry of Aortic Dissection (IRAD) has provided "incredibly valuable information" on both the natural history of aortic dissection and the surgical impact, he said. At IRAD centers—not all of which have vast experience—perioperative mortality in type A aortic dissections is 27%. In contrast, the surgical literature is replete with single-institution series reporting mortality rates of around 13%.

"Why do those results differ so much from those in the real-world experience, as reflected in IRAD? People who get lousy results with aortic dissection don't report them. The numbers you see in the literature are the best that can be found. Real-world results for type A dissection are far worse than reported and far worse than most people believe," he stressed. ■

Serious Heart, Kidney, Stroke Events Prompt FDA Advisory on Aprotinin During Surgery

The Food and Drug Administration is warning physicians that the blood-loss prevention drug Trasyol (aprotinin injection) has been linked to higher risks of kidney problems, heart attacks, and strokes in patients who undergo coronary artery bypass graft surgery.

Aprotinin is the only product approved for the prevention of perioperative blood loss and of the need for blood transfusion during coronary artery bypass graft surgery.

In particular, physicians should be aware of the following:

► When using aprotinin, physicians should carefully monitor patients for the occurrence of toxicity—particularly to the kidneys, heart, or central nervous system—and promptly report adverse event information to the drug's manufacturer (Bayer AG) or to the FDA's Medwatch program.

► Physicians should consider limiting use of the drug to situations in which the clinical benefit of reduced blood loss is essential to management of the condition and outweighs the risks.

► The FDA is working with the manufacturer to examine the safety and benefits of the drug in light of recent data.

► Physicians should discuss all major risks for heart bypass surgery with their patients, including the risks for bleeding and available means of lessening the risk.

The FDA is currently evaluating data from scientific literature and reports submitted to the MedWatch program to determine if label changes or other actions are warranted. The agency also anticipates discussing the existing data about the risks and benefits of the drug during an advisory committee meeting to be held some time in 2006. The committee also will consider if additional safety measures need to be taken.

To report adverse events to the MedWatch program, call 800-332-1088 or go to the program Web site, www.fda.gov/medwatch. For information, visit www.fda.gov/cder/drug/infopage/aprotinin/default.htm.

—Kerri Wachter

CABG Worth the Risks In Some Octogenarians

The immediate risks are steeper, but the return is a life expectancy of over 8 years.

BY BRUCE K. DIXON
Chicago Bureau

CHICAGO — Percutaneous coronary intervention may not be the best revascularization option for all octogenarians with multivessel coronary artery disease, according to a large study that pitted the procedure against surgical bypass.

The study of nearly 1,700 patients, aged at least 80, found that although in-hospital mortality and short-term survival were better for percutaneous coronary intervention (PCI), survival from 6 months to 8 years was significantly higher among the patients who underwent coronary artery bypass grafting for either two- or three-vessel disease.

The data are from the Northern New England Cardiovascular Disease Study Group, anchored at Dartmouth-Hitchcock Medical Center in Lebanon, New Hampshire. The data were presented at the annual meeting of the Society of Thoracic Surgeons.

"For a long time we never told octogenarians that there was a survival advantage to surgery. The emphasis was on quality of life. I think what we've found is that these older patients actually live quite a long time after treatment. Median survival was 7.7 years, and for those who had bypass it exceeded 8 years," said lead investigator Dr. Lawrence J. Dacey in an interview.

Over the study period, there were 514 deaths and 5,530 person-years of data. Of the 991 patients who underwent coronary artery bypass grafting (CABG), the in-hospital mortality rate was 6%, compared with 3% among the PCI group. Under further analysis, survival in the first 6 months was slightly better among the PCI cohort.

From 6 months post treatment out to 8 years, CABG patients showed a trend toward increased survival that was most pronounced for those with three-vessel disease. "However, among those who survived for 6 months beyond their procedures, there was a significant 28% adjusted reduced risk of death at 8 years if they had had CABG rather than

PCI," said the Dartmouth physician. Among patients with two-vessel disease, CABG conferred a highly significant 32% reduced risk of death.

For patients with three-vessel disease, there was a trend toward improved survival with CABG that may have fallen short of statistical significance because of the relatively few PCI patients with three-vessel disease, stated Dr. Dacey.

The study included patients aged 80-89 years with two-vessel disease (58%) and three-vessel disease (42%) but no left-main disease, undergoing a first, non-

'Not everybody in their [80s] is appropriate for CABG, but those who do want to go through it should be allowed the opportunity to do so.'

emergent revascularization during 1992-2001 in northern New England. CABG patients tended to be younger, more often male, and have more peripheral vascular disease and congestive heart failure, while PCI patients had more renal dysfunction and a larger number of recent

myocardial infarctions.

There exists among physicians what Dr. Dacey called a "bias that patients in this older group are too fragile to undergo major surgery. On the contrary, they're pretty robust and can handle a lot, and in our study those with the biggest advantage from bypass were those who were sickest to begin with."

Previous studies have shown the effectiveness of revascularization in enhancing the quality of life in elderly patients by providing both improved functional status and relief from angina, Dr. Dacey said. "Quality of life is particularly important for this age group. Studies have shown that CABG is equal or superior to PCI in improving quality of life. Patients aged 80 and older with multivessel coronary disease must carefully consider the trade-off between the increased up-front risk of CABG in return for improved long-term survival. Not everybody is appropriate for CABG, but those who do want to go through it should be allowed the opportunity to do so."

There were limitations of the seven-center study: It was not randomized, there were no data on subsequent revascularization, and both PCI and CABG are evolving and improving technically, Dr. Dacey said. ■