Atherectomy for Limb Ischemia Has Good Results

BY BRUCE JANCIN
Denver Bureau

NEW YORK — The largest and longest study to date of the Silverhawk percutaneous excisional atherectomy device showed that it is "an essential tool" for surgeons treating patients with lower-extremity peripheral artery disease, according to a vascular surgeon at New York Presbyterian Hospital.

The Silverhawk device uses an 8,000-rpm carbide cutting burr to excise atherosclerotic plaque while largely avoiding the trauma to the arterial wall that is inherent to angioplasty. This is the most likely explanation for the excisional procedure's high long-term patency and limb salvage rates, Dr. James F. McKinsey said at the annual meeting of the American Surgical Association.

Atherectomy is a minimally invasive alternative to surgical bypass, until recently the preferred treatment for lower-extremity ischemia, he continued. The complication rate with atherectomy is lower, and long-term patency is markedly better than with synthetic bypass conduits. In addition, the endovascular procedure is done under local anesthesia in a 1-day hospitalization, an important consideration because most patients with lower-extremity ischemia have multiple comorbidities and are less than ideal candidates for major surgery.

Dr. McKinsey reported on 579 consecutive atherectomy-treated lesions in the tibial, superficial femoral, and popliteal arteries in 275 patients (mean age 70 years). Among these patients, 37% had claudication and 63% had severe limb ischemia. Two-thirds had diabetes. Hypertension and coronary artery disease also were highly prevalent.

Overall, 65% of the atherectomies were done as standalone procedures. The rest were accompanied by angioplasty or stenting.

Atherectomy's chief complication was groin hematoma, which occurred in 4.1% of patients. That compares quite favorably with surgical bypass, which in several published series has entailed complication rates of 17%-19%, and climbed as high as 44% with distal bypass, he said.

The periprocedural mortality rate in the atherectomy series was 1.1%, and the 30-day mortality rate was 1.8%, Dr. McKinsey said.

The primary patency rate at 18 months—that is, patency with no reinterventions and no severe restenosis—was 53% for all lesions and 80% for superficial femoral artery lesions. The overall secondary patency rate was 75%. Primary and secondary patency rates were markedly higher in claudicants than in patients treated for critical limb ischemia. The overall limb salvage rate at 18 months was 88%. Of the claudicants, 2% ended up losing a limb within 18 months.

Reintervention was required within 18 months in 29% of lesions. More than 70% of those reinterventions were endovascular, and involved either repeat atherectomy or angioplasty. Surgical bypass was required by 12 patients, but 3 of these patients had a patent atherectomy-treated site at the time. Amputation was performed in 21 patients, Dr. McKinsey said.

Of the atherectomy-treated patients who developed moderate restenosis as shown on routine duplex ultrasound, 40 did not undergo reintervention because they lacked clinical symptoms, Dr. McKinsey said.

"These are very difficult patients where something needs to be done or they can lose their leg. The fact that your results demonstrate they did not get worse—even the ones who required reintervention—makes me think [atherectomy] is worthwhile in trying to save their limb," said discussant Dr. Gregorio A. Sicard, professor of surgery and director of the vascular service at Washington University, St. Louis.

However, he and others indicated that, in their view, when and how to intervene in claudicants remain a somewhat gray area.

The highly favorable outcomes Dr. McKinsey has obtained with the Silverhawk device has led him to deemphasize surgical bypass. Endovascular therapy is his first-line intervention in patients who fail conservative measures, even when good-quality veins are available for bypass.

He said that in patients with poor-quality veins who have an unsatisfactory result with endovascular therapy, he now typically performs a repeat endovascular intervention rather than resort to surgical bypass with a synthetic conduit because of the artificial graft's poor chance of long-term success. "Our use of synthetic bypass has gone down dramatically," he observed.

Dr. McKinsey disclosed he is on the speakers bureau for FoxHollow Technologies, which markets the Silverhawk device, as well as on the bureaus for most of the other endovascular device manufacturers. ■

A-Fib Affects Quality of Life of Patient and Spouse Equally

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Atrial fibrillation affects the quality of life of both patients and their spouses in equal measure, a survey of 264 patients and 94 spouses suggests.

"When you're educating patients about atrial fibrillation, it's important to educate the spouses as well," Dr. Bruce A. Koplan said at the annual meeting of the Heart Rhythm Society.

"That means don't leave the spouses sitting out in the waiting room. Encourage patients to bring their spouses in for their clinic visit, especially the first visit, when they're learning about the condition," said Dr. Koplan of Brigham and Women's Hospital, Boston.

Asked to rate the extent of the effect of atrial fibrillation on their own quality of life, 45% of patients and 43% of spouses said it had no effect or a minor effect, 29% of patients and 26% of spouses reported a moderate effect, and 26% of patients and 31% of spouses said there was a significant effect. The differences between groups were not statistically significant.

Ratings also did not differ between patients and spouses when asked about the effects of atrial fibrillation on specific aspects of quality of life, including daily activities, work/professional life, and sex life.

The effects of atrial fibrillation on the quality of daily activities were rated mild by 56% of patients and 54% of spouses, rated as moderate by 30% of patients and 36% of spouses, and rated as significant by 12% of patients and 10% of spouses.

Atrial fibrillation had a mild effect on the quality of work/professional life, according to 72% of patients and 80% of spouses. Another 19% of patients and 14% of spouses reported a moderate effect, and 29% of patients and 26% of spouses reported a significant effect on the quality of work/professional life.

The effects on the quality of sex life were rated as mild by 62% of each group, as moderate by 14% of patients and 13% of spouses, and as significant by 23% of patients and 24% of spouses.

"Atrial fibrillation by itself is almost never a life-threatening condition," Dr. Koplan noted. "When we treat atrial fibrillation, we're reducing the risk of stroke and we're reducing the fast heart rate, but the other important aspect in management is the effect it has on overall quality of life, not quantity of life."

Anxiety about atrial fibrillation and lack of understanding of the condition play a role in perception of quality of life. Some patients end up on psychiatric medications to deal with anxiety or depression related to atrial fibrillation. "If you're not addressing the spouse as well, you're not completely dealing with the condition," Dr. Koplan said.

Dr. Koplan has been a consultant for and received honoraria from Boston Scientific, Medtronic, St. Jude Medical, and St. Jude Inc. Dr. Albert has been a consultant for Guidant Inc. and received research grants from St. Jude Medical. ■

Less A-Fib Seen With Statins In Postmenopausal Women

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Postmenopausal women with coronary heart disease were less likely to develop atrial fibrillation if they were taking statins, a secondary analysis of data on 2,673 patients found.

The prevalence of atrial fibrillation was 65% lower, and the incidence was 55% lower, in women on statin therapy after adjustment for the effects of age, race, heart failure, or history of MI or revascularization. Several previous studies have shown a reduced risk for atrial fibrillation in patients with coronary disease on statins, but those cohorts were 75% male. This is the first study to show a specific benefit in women, Dr. Cara N. Pellegrini and her associates reported at the annual meeting of the Heart Rhythm Society.

The findings are yet another good reason for women with coronary disease who are on statins to keep taking them.

DR. PELLEGRINI

The findings are not a reason to use statins specifically to prevent atrial fibrillation in this population, but do provide yet another good reason for women with coronary disease who are on statins to keep taking them, said Dr. Pellegrini of the University of California, San Francisco. She reported that she has no potential conflicts of interest related to the study.

The data came from the Heart and Estrogen-Progestin Replacement Study (HERS) of 2,763 postmenopausal women with coronary heart disease who were randomized to treatment with hormone replacement therapy or placebo, and followed for cardiovascular outcomes for more than 4 years. The current analysis excluded 90 women because of the presence of other arrhythmias at enrollment.

Compared with the women with no atrial fibrillation, the 88 patients (3%) with atrial fibrillation during the study were significantly more likely to be older (70 years vs. 67 years), to have a history of heart failure (35% vs. 12%), and to be on an antiarrhythmic medication (5% vs. 1%). In the atrial fibrillation group, 22% were on statins, vs. 37% of women who did not have atrial fibrillation, a significant difference.

Although statin therapy protected against atrial fibrillation in several previous mostly-male studies, atrial fibrillation is different in women than in men. Women are more likely to have higher heart rates in atrial fibrillation, and to develop paroxysms, thromboembolism, or bleeding, among other differences. These differences prompted the investigators to conduct the current study, Dr. Pellegrini said.

A growing understanding of inflammation's role in atrial fibrillation has increased exploration of nonantiarrhythmic agents such as statins for prevention of atrial fibrillation. Previous studies that linked atrial fibrillation and inflammation predominantly examined men. ■