

# Drugs Excel for Asymptomatic Carotid Stenosis

BY MARY ANN MOON

Intensive medical therapy for asymptomatic carotid stenosis has decreased the risk of stroke to such a degree that it has marginalized the benefits of revascularization in most patients, according to a study published online December 14 in the Archives of Neurology.

Intensive medical therapy, widely adopted after 2003, has cut the rate of microemboli to less than 4% and markedly reduced cardiovascular events, particularly stroke, in patients with asymptomatic carotid stenosis. It therefore should be considered the treatment of choice for this patient population, said Dr. J. David Spence of the Stroke Prevention and Atherosclerosis Research Centre, London, Ont., and his associates.

Their conclusion was based on the results of their study that assessed the relative benefits of carotid revascularization using data from a clinical trial documenting microemboli on transcranial Doppler imaging.

"We think that revascularization should be considered only for the rare patients with microemboli." These patients are at higher risk for cardiovascular events, so the benefit of carotid revascularization may outweigh the risks of the procedure in these cases, they noted.

The investigators assessed 468 patients with asymptomatic carotid stenosis. Subjects who were assessed between Jan. 1, 2000 and Dec. 31, 2002 (199 patients) were taking the less intensive medical therapy recommended at that time, whereas those assessed between Jan. 1, 2003 and July 30, 2007 (269 patients) were taking the more aggressive medical therapy that is prevalent now. Patients in each group had a mean age of about 70 years. Since 2003, 34% of patients were female, compared with 42% before 2003.

The rate of microemboli was 12.6% before 2003, significantly higher than the 3.7% rate after 2003. Concomitantly, plasma lipid profiles steadily improved and the rate of carotid artery plaque progression markedly declined. More importantly, the rate of cardiovascular events dropped from 17.6% before 2003 to 5.2%

afterward, Dr. Spence and his associates reported (*Arch. Neurol.* 2010;67 [doi: 10.1001/archneurol.2009.289]).

Patients who were assessed in 2003 or later were significantly more likely to be taking statins, angiotensin-converting enzyme inhibitors, and clopidogrel at the time of their baseline transcranial Doppler embolus detection than were those who were assessed before.

Within 2 years of follow-up, 32% of

the patients with microemboli died, developed stroke or MI, or required carotid endarterectomy because their carotid stenosis became symptomatic. In comparison, these adverse events occurred in 9% of patients without microemboli.

The investigators adjusted each comparison for age, sex, smoking, systolic blood pressure, cholesterol, and cholesterol to high-density lipoprotein ratio.

"Our findings indicate that with more

intensive medical therapy, the stroke risk in asymptomatic carotid stenosis and therefore the potential benefit of revascularization have markedly declined," the researchers said.

The study was funded by grants from the Heart and Stroke Foundation of Ontario and by donations to the Stroke Prevention and Atherosclerosis Research Centre. No financial conflicts of interest were reported. ■



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† Mean percent change from baseline FEV<sub>1</sub> was measured at day of randomization, and months 6 and 12.

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References: 1. Rennard SI, Tashkin DP, McElhatten J, et al. Efficacy and tolerability of budesonide/formoterol in one hydrofluoroalkane pressurized metered-dose inhaler in patients with chronic obstructive pulmonary disease: results from a 1-year randomized controlled clinical trial. *Drugs*. 2009;69:549-565. 2. Data on File, 273071, AZPLP.

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