

Combination Therapy May Curb Stroke Severity

Triple play: Statins and ACE inhibitors, on top of antiplatelet therapy, additively reduced stroke severity.

BY DAMIAN McNAMARA
Miami Bureau

MIAMI BEACH — The triple combination of antiplatelet therapy, statins, and ACE inhibitors reduces primary stroke severity and improves outcome compared with antiplatelet monotherapy or dual drug therapy, according to preliminary findings presented by Magdy Selim, M.D., at the annual meeting of the American Academy of Neurology.

Antiplatelet therapy, statins, or ACE inhibitors can each reduce incidence and recurrence of ischemic stroke when used as monotherapy, according to findings from numerous published studies.

In addition, these agents have been shown to have independent neuroprotective effects, and data from animal studies suggest there is additional protection when the three agents are combined.

Dr. Selim and his associates retrospectively studied data that had been prospectively collected on 210 consecutive stroke patients who presented within 24 hours of stroke onset to the emergency department at Beth Israel Deaconess Med-

ical Center in Boston, where he is an attending physician in neurology.

A total of 110 patients were taking antiplatelet therapy before presentation and were assessed further. The investigators used magnetic resonance perfusion/diffusion imaging to confirm the diagnosis of ischemic stroke and assess stroke lesion volumes in 80 of the 110 patients.

A stroke team measured clinical sever-

ity in the emergency department. The 49 participants taking antiplatelet therapy alone (45 [92%] of whom took aspirin) had a mean National Institutes of Health Stroke Scale score of 11.5. The 43 participants taking an antiplatelet agent plus a statin or ACE inhibitor (dual therapy) had a score of 8.7. The 18 participants in the triple therapy group had a mean score of 4.1.

"Triple therapy resulted in an additive reduction in clinical severity of ischemic stroke and better outcomes upon discharge," Dr. Selim explained.

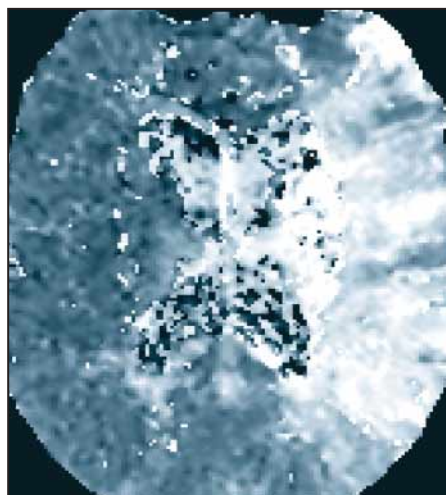
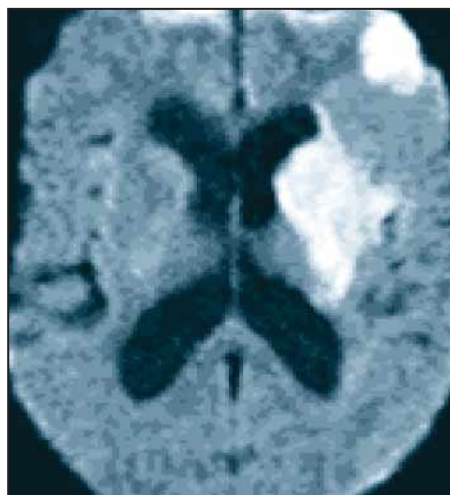
Outcome was measured indirectly—for example, a higher percentage of triple therapy patients were discharged home.

There were no significant differences between groups in age (mean 72-74 years), time-to-imaging, risk factor profile, blood pressure, or lesion volume as assessed by diffusion-weighted imaging (DWI). "The only significant difference was patients with hyperlipidemia were more likely to be taking a statin," Dr. Selim said.

Magnetic resonance imaging showed that patients on triple therapy had significantly smaller stroke lesions, with a mean volume based on perfusion-weighted imaging (PWI) of 49.1 cc, compared with 74.6 cc with single therapy and 78.5 cc with dual therapy.

Similarly, the volume of tissue at risk, based on assessment of the PWI-DWI mismatch (the difference in lesion volume as measured by PWI and DWI) was significantly smaller in patients on triple therapy (27.4 cc), compared with 46.8 cc with single therapy and 60 cc with dual therapy.

"I want to stress these findings are preliminary and require validation in larger studies," said Dr. Selim, who received research support from the Harvard Center for Neurodegeneration and Repair in Boston. ■



The mismatch between DWI assessment of volume of tissue at risk (white area in image at left) and PWI (right) was smaller in patients on triple therapy.

PHOTOS COURTESY DR. MAGDY SELIM

Neurologists and Cardiologists Differ on Management of PFO

BY DAMIAN McNAMARA
Miami Bureau

MIAMI BEACH — Neurologists are less likely than cardiologists to favor closure of patent foramen ovale in an attempt to prevent stroke, according to survey results presented at the annual meeting of the American Academy of Neurology.

Although there is a higher prevalence of patent foramen ovale (PFO) among patients who experience a stroke when no other cause is identified, studies have yet to prove that percutaneous closure makes a difference in outcomes. "It is not yet proven that closing the PFO through cardiac catheterization is better than medication," Steven R. Messe, M.D., told this newspaper during an interview at his poster presentation.

To compare how different specialists manage these patients, Dr. Messe and his colleagues surveyed 129 cardiologists and 108 neurologists. All the physicians were investigators in the CLOSURE-I trial, a study comparing percutaneous closure with medical therapy.

The response rate was 39.5%, with 36% of cardiologists and 44% of neurologists answering the survey. The 17-item questionnaire assessed practice regarding PFO diagnosis, high-risk characteristics, treatment choices, and alternative indications for PFO closure.

According to the survey, 78% of the cardiologists and 65% of the neurologists be-

lieve that PFO is relevant to future stroke risk regardless of age.

Despite insufficient outcome data, cardiologists said they recommend percutaneous closure for 55% of patients with a PFO, compared with neurologists, who recommend it for only 20%.

"Closure in general is being used frequently without data at this point, for one in five neurology patients," said Dr. Messe, attending neurologist, Hospital of the University of Pennsylvania, Philadelphia.

"Interventional cardiologists do the procedure, and they are eager to do it. Neurologists are more conservative," Dr. Messe said.

A minority, 9% of cardiologists and 2% of neurologists, have recommended closure for asymptomatic PFO patients. A total of 24% of cardiologists and 6% of neurologists would close a patent foramen ovale in a patient who scuba dives, according to the survey. In addition, 14% of cardiologists but no neurologists said they have recommended PFO closure for migraine treatment.

Neurologists prescribe antiplatelet therapy, such as warfarin, for 49% of patients with a PFO. Cardiologists prescribe the same medications for 26% of patients.

Most neurologists may be waiting for more evidence of improved outcomes, Dr. Messe said. "I think neurologists will be excited to refer PFO patients for closure once it's proven to make a difference in prevention of stroke." ■

Stroke Risk in Pregnancy, Delivery Adjusted Upward

BY MITCHEL L. ZOLER
Philadelphia Bureau

NEW ORLEANS — The risk of stroke in more than 8 million American women during the pre-, peri-, and postpartum periods was 34/100,000, a higher rate than previously calculated.

And the risk of stroke rises with age. Women who were at least 40 years old had a 3.3-fold increased risk of stroke during pregnancy, delivery, and immediately after delivery, compared with women 15-19 years old, Cheryl D. Bushnell, M.D., said at the 30th International Stroke Conference.

Women aged 35-39 years had a 90% increased risk, compared with women younger than 20 years, said Dr. Bushnell, a neurologist at Duke University in Durham, N.C.

Although the stroke risk during pregnancy and delivery was higher than previous estimates of 4-26/100,000, there are currently no clear implications of what this finding means for monitoring and managing women during pregnancy and delivery, commented Andra H. James, M.D., an obstetrician at Duke and a coinvestigator on this study. Dr. James had no recommendations for

changing current obstetric practice on the basis of the new finding.

The researchers used data collected in the Nationwide Inpatient Sample during 2001-2002. This database, maintained by the Agency for Healthcare Research and

Quality, is a 20% sample of all inpatients at about 1,000 U.S. community hospitals.

The database included records for more than 8 million women discharged with prepartum, delivery, or postpartum codes. Of these, 2,850 had a stroke, a rate of 34.2 events/100,000 women, Dr. Bushnell said at the conference, sponsored by the American Stroke Association.

Besides age, race was a variable that affected women's stroke risk. African American women had a 70% increased risk, compared with white women. Clinical factors that boosted the risk of stroke were preeclampsia, postpartum infection, a blood transfusion, and any other comorbidity.

Of the 2,850 women with strokes, 117 died, for a mortality of 4.1%, and a rate of 1.4 stroke deaths per 100,000 deliveries. Given that the overall mortality rate during pregnancy and delivery in the United States is 10/100,000 deliveries, stroke accounts for 14% of all maternal deaths, Dr. Bushnell said. ■

Stroke risk rises with age, with women 35-39 years old at 90% increased risk, compared with women younger than age 20.