

Study shows stroke and TIA patient outcomes best at experienced centers

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Micrograph showing cortical pseudolaminar necrosis, a finding seen in strokes on medical imaging and at autopsy. H&E-LFB stain. Credit: Nephron/Wikipedia

Researchers from Houston Methodist Hospital and five partner institutions used data from a major stroke clinical study to show that medical centers with more experience and expertise in aggressive medical management had a significantly positive impact on patient outcomes. This, according to research published in the Dec. 15, 2015,

issue of *Neurology*, the medical journal of the American Academy of Neurology.

Conducted from 2008-2013, Stenting and Aggressive Medical Management for the Prevention of Recurrent Ischemic Stroke (SAMMPRIS) was a National Institutes of Health-funded randomized clinical trial conducted at 50 institutions with an enrollment of 451 patients who had suffered strokes or TIAs (also known as 'mini-strokes') attributed to severe stenosis (blockage) of a major intracranial artery. The effectiveness of AMM versus stenting as a treatment was compared, with the former resulting in lower rates of recurrence and mortality.

Using the SAMMPRIS patient data, a team led by David Chiu, M.D., medical director of the Houston Methodist Eddy Scurlock Stroke Center and neurologist at the Houston Methodist Neurological Institute, evaluated whether the experience of the stroke center and the expertise of the staff in using AMM for strokes and TIAs led to the better outcomes.

"We compared the rates of recurrent [stroke](#) or death for patients receiving aggressive [medical management](#) at the 12 centers with the highest study enrollment to those who received the treatment at the 38 with the lowest enrollment," said Chiu. "We found a significant difference in the rates after both 30 days—1.8 percent for the high-volume centers and 9.8 percent for the low-volume—and after 2 years—7.3 percent versus 20.9 percent."

The study, Chiu said, also found that the rates of excellent blood pressure and cholesterol control were superior for patients who had undergone AMM at the more experienced centers.

As for whether or not other factors besides a center's experience might account for the better outcomes, Chiu acknowledges the possibility but

believes his team's findings make a strong case.

"When we compared the frequencies of all known baseline characteristics and [stroke risk factors](#), there were only a few differences between high-enrolling centers and low-enrolling centers but the only factor that explained the disparity in outcomes between the two groups was the center's experience," said Chiu, professor of clinical neurology, Weill Cornell Medicine.

More information: D. Chiu et al. Enrollment volume effect on risk factor control and outcomes in the SAMMPRIS trial, *Neurology* (2015). [DOI: 10.1212/WNL.0000000000002191](https://doi.org/10.1212/WNL.0000000000002191)

Provided by Houston Methodist

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