

MEDICAL TREATMENT LIKELY BESTS ENDOVASCULAR THERAPY FOR SYMPTOMATIC INTRACRANIAL ARTERY STENOSIS

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Reuters Health - 09/09/2020 - In patients with symptomatic intracranial atherosclerotic stenosis (ICAS), endovascular therapy (ET) is unlikely to prevent recurrent stroke and seems more risky than conventional medical treatment (CMT), moderate-quality evidence from a Cochrane review reveals.

"Based on two multi-center and one single-center randomized, controlled trials (RCTs), this review provides so far the highest level of evidence - moderate level - of the treatment of symptomatic ICAS," Dr. Liqun Jiao of Capital Medical University in Beijing told Reuters Health by email.

"In all primary and secondary outcomes, CMT is superior to ET, which is consistent with recommendations of current international guidelines," he said. "However, ET still has potential in the following ICAD patients, who have not been addressed by the RCTs included in this study: those treated by experienced operators; hypoperfusion rather than perforating infarction; and delayed intervention time - i.e., onset to intervention time > three weeks."

"In addition, even with medical treatment, the risk of recurrent stroke is still high," he noted. "Therefore, our recommendation is not to stop doing ET, but to call for more research to explore and validate these situations."

In their analysis for the Cochrane Library, Dr. Jiao and colleagues searched the literature through July 2019 for RCTs comparing ET plus CMT with CMT alone in patients with symptomatic ICAS. ET modalities included angioplasty alone, balloon-mounted stent, and angioplasty followed by placement of a self-expanding stent. CMT included antiplatelet therapy plus control of risk factors such as hypertension, hyperlipidemia, and diabetes.

Three RCTs with 632 participants were included. These trials had high risks of performance bias and other potential sources of bias due to the impossibility of blinding of the endovascular intervention and early termination of the trials, the authors noted.

Moreover, one trial had a high risk of attrition bias because of high rates of loss of one-year follow-up and of transfer from ET to medical management.

The quality of evidence ranged from low to moderate, downgraded for imprecision.

At 30 days, the included RCTs showed that, compared to CMT, ET probably results in a higher rate of death or stroke (risk ratio, 3.07; moderate-quality evidence), ipsilateral stroke (RR, 3.54; moderate-quality), ischemic stroke (RR, 2.52; moderate-quality), and 30-day

hemorrhagic stroke (RR,15.53; low-quality).

Similarly, at one year, ET was also likely associated with a worse outcome in death or stroke (RR, 1.69; moderate-quality), ipsilateral stroke (RR, 2.28; moderate-quality), ischemic stroke (RR 2.07; moderate-quality), and one-year hemorrhagic stroke (RR, 10.13; low-quality).

By contrast, no significant differences between ET and CMT were seen in 30-day transient ischemic attacks (TIA; RR, 0.52; moderate-quality), 30-day death (RR, 5.53; low-quality), one-year TIA (RR, 0.82; moderate-quality), one-year death (RR, 1.20, moderate-quality), and one-year dependency (RR, 1.90; moderate-quality).

No data on restenosis and health-related quality of life for meta-analysis were available.

Dr. Jiao said, "The ongoing CASSISS RCT (<https://bit.ly/3haH7WB>) has addressed several important points currently considered to be most likely to affect the outcome, The three-year follow-up has already been finished and the results will be published soon. We will include the CASSISS study results in the next update."

Dr. David J. Altschul, Chief, Leo M. Davidoff Department of Neurological Surgery at Montefiore Health System in New York City, commented in an email to Reuters Health, "For patients that have had repeated strokes, despite best medical therapy, we can consider ET."

"Much of the research for ET for this disease is based on the Wingspan intracranial stent," he noted. "This stent is now considered old technology because it's difficult for neurointerventionalists to use. There are newer stents that are easier to deliver, but the other options have not been well studied for this disease."

"Much of the research in ICAS is looking only at one-year follow up as a long-term outcome," he added. "However, this disease is life-long, and when comparing CMT to a procedural therapy like ET, the up-front risk for a procedure is much higher than a medication. However, the effects last much longer, over many years, while with medical therapy there is often a persistent risk for new strokes after one year."

By Marilyn Larkin

SOURCE: <https://bit.ly/35kLR9T> Cochrane Library, online August 11, 2020.