'Clot-buster' drug may still be best stroke treatment

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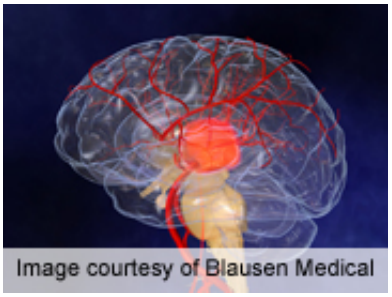

Italian study found tPA as good as invasive procedures that go into artery to retrieve, destroy clots

(HealthDay)—The standard medical care for patients having an ischemic stroke is to give powerful "clot-busting" drugs as soon as possible after the start of the stroke.

But some hospitals are starting to rely on new treatment methods that actually go into the artery and retrieve the clot or destroy it at the site.

According to a new study from Italy, however, these new methods—collectively referred to as endovascular treatment—are no better than the standard clot-buster drug known as tissue plasminogen activator (tPA).

"Our findings do not provide support for the use of the more invasive

and expensive endovascular therapy over intravenous treatment," said study author Dr. Alfonso Ciccone, director of the stroke unit and neurology department at Carlo Poma Hospital, in Mantua.

The results indicate that standard, intravenous tPA is the first-line therapy for acute stroke, he said.

"This defines a clear priority in treatment options," said Ciccone, who coordinated the study while working at Niguarda Ca Granda Hospital, in Milan.

The study appeared online Feb. 6 in the New England Journal of Medicine, to coincide with a presentation at the American Stroke Association annual meeting, in Honolulu.

Ischemic strokes account for 87 percent of all strokes and are caused by a blockage in one of the blood vessels carrying blood to the brain. (Most other strokes are hemorrhagic, which result when a blood vessel breaks, leaking blood into the brain.)

Studies have shown that administering tPA through an IV line within 4.5 hours of the onset of the ischemic stroke can greatly minimize damage to the brain and this is now widely viewed as the standard of care for this type of stroke, said Dr. Curtis Benesch, medical director of the Stroke and Cerebrovascular Center at the University of Rochester Medical Center, in New York.

But endovascular strategies have shown a better rate of "recanalization," or opening the artery up, Benesch said.

"The difficult challenge has been trying to establish that recanalization is clearly associated with improved clinical outcome," he added.

For this study, Ciccone and his colleagues randomly assigned 362 patients with acute ischemic stroke to undergo endovascular therapy or standard tPA administered intravenously.

Endovascular therapy given in the study included administering tPA through the artery directly into the clot or retrieving or breaking up the clot mechanically, or a combination of both.

All treatments occurred with 4.5 hours of the beginning of the stroke.

After three months, about a third of patients in each group were alive and without disability. In other words, there was no difference in outcomes.

A number of reasons might account for the results, including the extra time it takes to perform endovascular therapy, said Dr. Daniel Labovitz, director of the Stern Stroke Center at Montefiore Medical Center, in New York City.

In this study, endovascular treatment delayed initiation of treatment by one hour, study author Ciccone said.

But another explanation for the finding is possible and may be good reason not to write off endovascular strategies entirely, experts said.

In particular, devices called stent retrievers "seem to be more effective and safe than their predecessors," Ciccone said. But they are so new that they were only used in the last phase of this study, which ran from 2008 through 2012.

"We do not know if the extensive use of these devices could have produced more favorable results for endovascular therapy," Ciccone said.

For his part, Labovitz said that stent retrievers "have been a game changer."

It's also possible that different patients would benefit from different treatments but doctors don't yet know which patients fall into which group, Labovitz said.

"Treatment is evolving so rapidly," Labovitz said. "I think this is why getting negative results isn't making any of us lose hope."

Benesch agreed that the new finding shouldn't be taken as the final word.

"Many people are going to view [the current study] as a lack of support for endovascular treatment, saying all the excitement and enthusiasm isn't warranted . . . but I think that's a bit shortsighted," Benesch said.

More information: The American Heart Association has more on ischemic strokes.