

Advances in mechanical thrombectomy warrant call to action in acute stroke

May 19 2015

Experts speaking at EuroPCR 2015 say the explosion of positive results for new-generation endovascular devices for the treatment of acute stroke warrant a call to action to ensure swifter implementation of this technology. Known as "stent-retrievers," mechanical thrombectomy devices use catheters introduced into a blocked cerebral artery to suck out or lyse a clot that is cutting off circulation to part of the brain.

On Tuesday, EuroPCR 2015 featured a special breaking news session devoted to this rapidly evolving field to review the recent evidence and discuss the rationale for boosting use of the therapy.

Seven clinical trials in the past six months have demonstrated that intracranial thrombus retrieval or lysis is feasible and safe, and yields significant improvements in neurological functional on top of best medical therapy (including IV thrombolysis whenever indicated), as compared to best medical therapy alone.*

"Acute ischaemic [stroke](#) is as common as [acute coronary syndrome](#), but the prognosis is still very grave," Dr. Petr Widimsky, head of the Cardiocenter and Chair of the Cardiology Department at the Third Faculty of Medicine, Charles University & University Hospital "Royal Vineyards," Prague, Czech Republic observed. With conservative treatment following a moderate or severe stroke, only 10% will recover to the state of functional independence, he noted. "So 90% patients who are not treated die or are severely disabled. Thrombolysis increases the rate of people who return to functional independence from 10% to

20-25%, but that still leaves 75% disabled or dead."

According to Widimsky, the accumulated evidence from the various clot retrieval trials published or presented in the past few months suggests that the number of moderate/severe [stroke patients](#) who regain full or near-full neurological function rises to 40-50% with this novel therapy. "And with good patient selection, that may increase to 60%. Sometimes we face something that looks close to a miracle when we are treating a patient with a severe stroke, who is profoundly disabled, and he makes a full recovery before your eyes. It's really dramatic."

A range of clot retrieval systems already hold regulatory approval in both Europe and North America, but implementation into practice will require concentrated effort of many parties, Widimsky said.

"It is a difficult technique routinely used so far only in a few comprehensive stroke centres and physicians need the appropriate training, but these data have only been out for a few months. If you remember the story of myocardial infarction, the fact that MI should be treated with coronary angioplasty was known in 1993, but it took 10 years before it was widely used."

There are risks to the procedure, Widimsky acknowledged, with an adverse event rate in the range of 5%. The most important risks are intracranial bleeding, or new stroke in another territory, caused by a clot fragment embolising during removal. So far, most of the procedures in Europe are being done by radiologists and in the US, primarily neurosurgeons, but Widimsky predicts there will be wider uptake in the coming years by angiologists, neurologists, vascular surgeons, and cardiologists depending on the local situation.

"We are highlighting these new data here at EuroPCR in order to spread the message that this therapy shows great promise. We need to build

health care systems and train physicians to be able to offer this effective method to as many patients with acute ischaemic stroke as possible."

More information: Associated EuroPCR 2015 Session: Breaking News: Acute Stroke Intervention, 12:25-12:55 CEST, Tuesday May 19, Main Arena

Provided by EuroPCR

Citation: Advances in mechanical thrombectomy warrant call to action in acute stroke (2015, May 19) retrieved 26 April 2024 from <https://medicalxpress.com/news/2015-05-advances-mechanical-thrombectomy-warrant-action.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.