

tPAは年齢や脳卒中重症度に関係なく脳卒中による傷害を軽減させる (Abstract: LB2)

静脈内血栓溶解薬の適時の投与は脳卒中患者の年齢や重症度にかかわらず予後を改善する

Timely administration of intravenous thrombolysis improves outcomes regardless of patient age or stroke severity

脳卒中患者の年齢や重症度にかかわらず、静脈内血栓溶解薬の迅速な投与は脳卒中による障害を軽減するとのlate-breaking scienceの結果が2014年American Stroke Association's International Stroke Conferenceで発表された。組織プラスミノゲンアクチベーター(tPA)は急性虚血性脳卒中に対し推奨される治療である。しかし、tPAを投与するべき時間枠および高齢患者や微小または重度の脳梗塞における使用に関しては依然として議論の余地がある。専門家による国際協力グループが9つの臨床試験に参加した脳卒中患者6,756人の記録をレビューした。その結果、tPAはプラセボより有効であり長期障害率を低下させた。また早期治療により予後が改善した。tPAを脳卒中発症から3時間以内に投与された患者のうち脳卒中後に有意な障害を来さなかった者は33%であったのに対し、tPAを投与されなかった患者では23%であった。tPAを脳卒中発症後3~4.5時間に投与された患者のうち有意な障害を来さなかったのは35%であり、プラセボ群では30%であった。脳卒中発症4.5時間後に投与された群では、33%がほとんど障害を来さなかったのに対しプラセボ群では31%であった。

Full Text

Regardless of a patient's age, or severity of stroke, prompt treatment with intravenous thrombolysis limited stroke-related disability, according to late-breaking science presented at the American Stroke Association's International Stroke Conference 2014.

Administration of tissue plasminogen activator (tPA) is the recommended treatment for acute ischemic stroke. However, there is still debate regarding the time window in which it should be given and its use in older patients or those with a minor or severe stroke.

An international collaboration of experts reviewed the records of 6,756 stroke patients participating in nine clinical trials. The experts reported that tPA worked better than placebo and decreased a patient's odds of having long-term disability. Earlier treatment also improved outcomes. Among patients who received the clot buster:

- Within three hours of stroke onset, 33 percent did not experience significant disability after stroke compared with 23 percent of those who did not receive tPA.
- Between 3 and 4.5 hours of stroke, 35 percent did not experience significant disability after stroke compared with 30 percent of the placebo group.
- After 4.5 hours from stroke onset, 33 percent of the tPA group had little disability compared with 31 percent of the placebo group.

"Our results may have implications for treatment guidelines on both sides of the Atlantic," said Jonathan Emberson, Ph.D., study author and senior statistician from the University of Oxford in the United Kingdom. "In the United States, use of tPA is currently limited to treatment within three hours, while in some European countries use is limited to patients aged 80 or younger. The appropriateness of both of these restrictions may be revisited in light of our results."

Prompt recognition of stroke symptoms and speedy treatment are the key to success.

"The problem causing the stroke is often a fresh blood clot, blocking the artery. tPA is a naturally occurring clot-dissolving drug, doing what nature designed it to do," said Kennedy Lees, M.D., joint study author and professor of Cerebrovascular Medicine at the University of Glasgow, United Kingdom. "If we give it early enough, while the clot is still fresh, it is extremely effective. The earlier the treatment is delivered, the bigger the expected benefits."

Those who received tPA in a timely manner were significantly more likely to be free of stroke-related disability three to six months later based on the results of the modified Rankin scale.

While the use of tPA was associated with a significant increase in the risk of potentially deadly bleeding in the brain in the initial phase of treatment, by three months after stroke, deaths in the tPA and placebo group were not significantly different.

"tPA is under-used in older people, especially those aged over 80, so I am delighted these data support the use of tPA in this somewhat neglected patient group," said Peter Sandercock, D.M., joint study author and professor of Neurology at the University of Edinburgh.

Based on these findings, the research team plans to investigate in greater details the effects of tPA, how it may further mitigate against stroke-related disability, and whether it would work in other types of patients.

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