**Lower dose may help more stroke patients live**

May 16, 2016, 02.41AM IST TNNhttp://images.photogallery.indiatimes.com/images/spacer.gif[ Sushmi Dey ]

NEW DELHI: There's good news for stroke patients — a reduced dosage of a popularly used medicine not only does the job but can improve survival rates as well, a global study shows.   
  
Researchers at the George Institute for Global Health investigated a modified dosage of recombinant tissue plasminogen activator (rtPA) — the standard care for acute ischaemic stroke for several years. The study showed that when the level of the drug was reduced, most of the clot busting or dissolving benefits of the higher dose were maintained while there was significantly less bleeding inside the brain. This helped improve survival rates, researchers claimed.   
  
Experts said the study had the potential to change the way the most common form of stroke is treated globally. More than 1.2 million Indians suffer strokes every year, making it the leading cause of death and disability in rural India.   
  
The trial, covering 3,000-odd patients in 100 hospitals worldwide, showed the rate of serious bleeding in the brain — intracerebral haemorrhage — came down by two-thirds on reducing the dose of rtPA from a standard 0.9mg/kg body weight to 0.6mg/kg.   
  
After 90 days into the trial, 8.5% of patients who received low dose rtPA died, compared to 10.3% among those who received the standard dose.   
  
The drug rtPA (recombinant tissue plasminogen activator) is used to dissolve clots that block a blood vessel in a patient's brain within the first few hours of the onset of stroke symptoms.   
  
However, the survival benefits from the modified dosage of the drug rtPA was offset by a slight rise in the number of people suffering residual disability, the study showed. For every 1,000 patients treated with low dose rtPA, compared to the standard dose, 41 more people had physical disabilities, such as needing help dressing or walking, but the mortality figure was lower by 19.  
  
"There is a trade-off with the lower dose with regard to recovery of functioning, but being alive is surely preferable to most patients than suffering an early death," said Prof Anderson, the principal investigator of The George Institute for Global Health. He added that hopefully, the lower dose would become the standard in situations where a doctor considers the risk of intracerebral haemorrhage to be high in a particular patient.  
  
In China, around two million people suffer stroke every year, where 640,000 Americans suffer the disorder each year. In the UK, 120,000 suffer stroke while the number is 40,000 in Australia every year.  
  
Prof Jeyaraj D Pandian from Christian Medical College, Ludhiana, said intravenous rtPA (or alteplase) therapy is the currently approved therapy within 4.5 hours of the onset of stroke symptoms. This drug breaks and dissolves the clot in the blocked artery in the brain.  
  
However, because of poor healthcare infrastructure and high cost of the treatment, the advanced drug or therapy still remains highly unavailable and unaffordable in India. Very few patients in India receive this drug because of late arrival to the hospital or unaffordability of this treatment. The cost of this drug is about Rs 67,000.