



## Flexible Versus Rigid Methods Of Intravenous Thrombolysis In Iran

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Thrombolysis with administration of intravenous (IV) recombinant tissue plasminogen activator (rtPA) has been performed in some tertiary care hospitals in Iran in recent decade. Ministry of Health and Medical Education of Iran approved a new management strategy which covers the cost of Alteplase since 2015. This is a great advance in increasing chance for Iranian stroke patients to get the treatment. Delay in performing triage and CT and laboratory tests is another limiting factor which can be decreased by defining special team members for thrombolysis. Most of the Iranian neurologists are not expert for performing the management. This limitation can be managed by continuous thrombolysis work shops. However many of the Neurologists may not be interested to do the thrombolysis due to its risks and lack of financial benefits for responsible doctor. Most of the contraindications for thrombolysis with tPA originated as exclusion criteria in famous clinical trials. These were derived from expert consensus for the National Institute of Neurological Disorders and Stroke (NINDS) trial. Despite the fact that the safety and efficacy of IV rtPA has been repeatedly confirmed in large international observational studies over the past 20 years, most patients with acute ischemic stroke still do not receive thrombolytic treatment. Some of the original exclusion criteria have proven to be unnecessarily restrictive in real-world clinical practice. It has been suggested that application of relaxed exclusion criteria might increase the IV thrombolysis rate up to 20% with comparable outcomes to thrombolysis with more conventional criteria. We review the absolute and relative contraindications to IV rtPA for acute ischemic stroke, discussing the underlying rationale and evidence supporting these exclusion criteria. There are two therapeutic strategies for selecting the contraindications and exclusion criteria. Flexible method is ignoring some absolute or partial exclusion criteria as illustrated above. This method will increase the probability of symptomatic intracerebral hemorrhage and death and may increase numbers of legal condemnations for treating physician. Rigid method is prohibition of violations from standard protocols of thrombolysis which decreases both numbers of managed patients and thrombolysis contraindications. Physicians who prefer the first therapeutic strategy refer to data of published articles and guidelines of American and European stroke societies. There are two points of view; first, the Iranian neurologists do not have thrombolysis experience as well as western neurologists. For instance very limited number of Iranian neurologists have enough experience for detection of ASPECT score. Second, due to some social factors number of legal condemnations due to medical malpractice has been hugely increased in recent two decades in Iran. Based on these points second strategy is more wise for Iranian neurologists. The speaker has made a standard protocol of thrombolysis based on international guidelines and his experience. This standard protocol which is designed according to the rigid method is available by search in Google engine and is provided in Persian language.

Key words: Method, Thrombolysis



DOI: 10.7575/aiac.abcmcd.ca1.6

Published Date: February 2017

Peer-review is under responsibility of *the 9th Iranian Stroke Congress*.

Published by Australian International Academic Centre, Australia

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