A brief review of the advances in endovascular therapy and the recent recommendations of AHA/ASA for stroke treatments

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Stroke is the second cause of death in the USA and responsible for several sequelae that reduce the quality of life of those who survive. Several treatment strategies have arisen, bringing new perspectives to patients and physicians. These advances were possible due to the recognition by the world medical societies of the stroke as a potentially reversible event. Rapid treatment with fibrinolysis has been the standard of care in these patients, reaffirmed in the current guidelines from the American Heart Association (AHA) and the American Stroke Association (ASA) for use within 4.5 hours of stroke initiation. However, fibrinolysis is associated with poor vascular recanalization in cases of large vessel occlusion. Therefore, endovascular treatments have been developed to improve it. Previous trials of endovascular treatment with initial devices failed to demonstrate a transcendent benefit beyond fibrinolysis alone. Five trials that investigated the efficacy of modern endovascular therapies, MR-CLEAN, ESCAPE, SWIFT-PRIME, EXTEND-IA and REVASCAT, have been published, clarifying the vision of stroke management, providing strong evidences to support it. Based in the clearly beneficial results of these trials, the AHA/ASA has updated its guidelines on endovascular treatment for stroke in 2015, giving the strongest recommendation possible for selected patients to receive endovascular treatment. Recommending that stent retrievers be used if possible, due to significantly improved functional outcomes results. Thanks to advances in technology and recent studies, the endovascular therapy is now an irrefutable important resource in the treatment of acute ischemic stroke in the setting of large and proximal vessel occlusion.

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