

IS THROMBECTOMY AN EFFECTIVE THERAPY FOR ACUTE STROKE? NO

Louis Caplan, USA

Early studies used a variety of mechanical devices (MERCİ and Penumbra and stent retrievers- Solitaire and Trevo) to retrieve thrombi within intracranial arteries and to recanalize occluded arteries. These early studies showed that these devices retrieved clots and that stent retrievers seemed to do this more effectively than the other devices. However trials that studied the effectiveness of these devices in improving clinical outcomes vs tPA or other standard treatments (IMS II and IMS III, Synthesis expansion, Imaging Retrospective, MR Rescue, and Defuse II) did not show a benefit for endovascular treatment.

The benefits and risks of opening freshly occluded intracranial large arteries in patients with brain ischemia depend on the extent of infarction, the location, the mechanism of thromboembolism, and the clot burden present, as well as time taken to perform the treatment. Mechanical removal of thromboemboli with stent retrievers can quickly and effectively open occluded arteries. Interventional treatment of acute and threatened brain ischemia is a rapidly changing field. New devices, new thrombolytic agents, and new antithrombotic agents are continuously being introduced and tested. Diagnostic imaging advances are improving the ability of clinicians to identify the important features needed to select patients optimally. Interventionalists are gaining experience with their new tools. Key questions remain including: patient selection criteria, use of optimal brain and vascular imaging, appropriate devices for recanalization, and the concomitant use of intravenous and intra-arterial thrombolytics among others. However until now endovascular treatment has not been proven effective in any group tested to date.