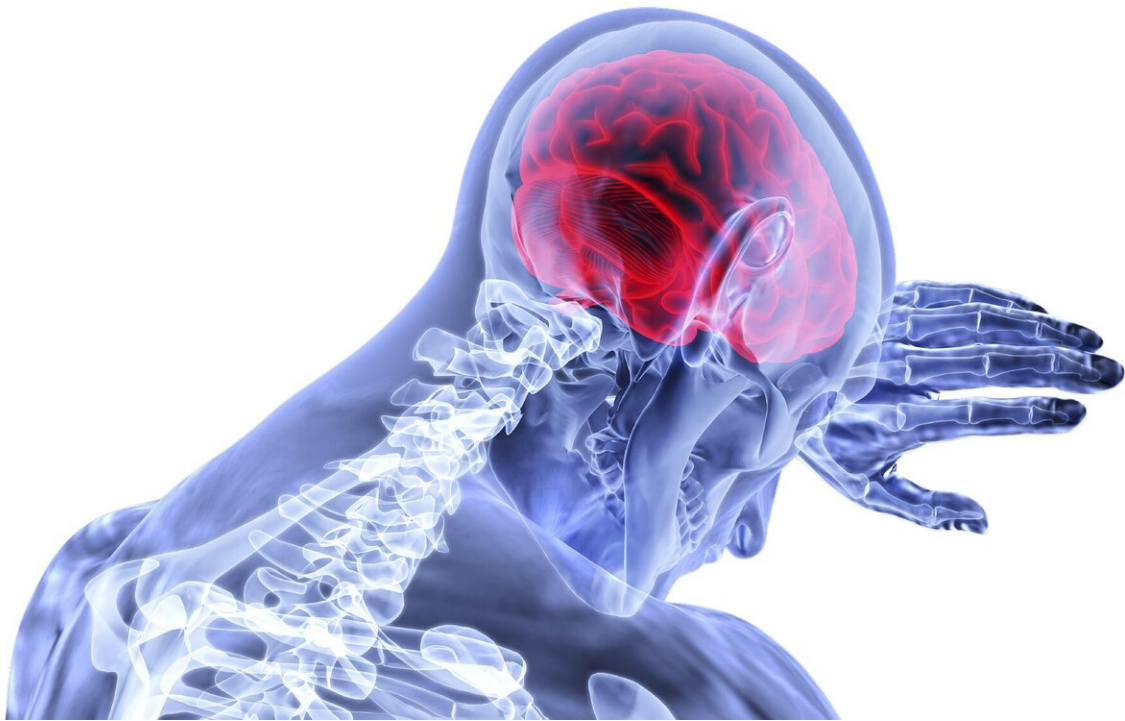


Major international study finds thrombectomy highly effective treatment for large strokes

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A large international clinical study finds that patients with large strokes had a dramatically better recovery after endovascular thrombectomy plus medical management than patients receiving only standard medical

management.

Endovascular thrombectomy is mechanical recovery of a clot blocking blood flow in an artery.

The study was published Feb. 10 in the *New England Journal of Medicine* to coincide with its presentation at the International Stroke Conference in Dallas.

The SELECT2 study, which involved 31 medical centers in North America, Europe, Australia, and New Zealand, was stopped early because of the successful results seen in patients who received thrombectomy versus medication only.

Global Principal Investigator and Lead Author of the study, Amrou Sarraj, MD, said, "We went on to challenge the [current practice](#) where patients with large strokes would be precluded from thrombectomy." Dr. Sarraj is the Stroke Center and System Director, the George M. Humphrey II Chair in Neurology at University Hospitals, and Professor of Neurology at Case Western Reserve University School of Medicine.

While thrombectomy has proven effective in smaller strokes, patients with large strokes were considered too high risk for the procedure. Size of a stroke is determined by range of damaged brain tissue seen through CT or MRI scans.

"These patients are left to receive medical management only, and a significant number of them end up with very poor outcomes; being wheelchair bound, bed ridden, or dead," said Dr. Sarraj.

"This is a huge opportunity for improvement at a very large level, especially since these patients account for 20 to 25 percent of all large vessel occlusions and may have huge impact on patients, their family,

and society."

The study had a target of 560 patients with large artery occlusion causing a large stroke on CT or advanced imaging, but the data and safety monitoring board stopped the trial after enrollment of 352 patients because of the superior outcomes seen with thrombectomy.

The patients were randomly assigned to one of two groups: 178 received thrombectomy and 174 received [medical management](#). Patients who were seen prior to 4.5 hours from onset of [stroke](#) received clot-buster drugs TPA or TNKase if eligible.

"We found that almost 20 percent of the patients who received a thrombectomy ended up with functional independence, going back to their family, to the society as almost normal or not needing support, compared to 7 percent for medical treatment only. We also found that almost 40 percent of the patients end up ambulating independently," said Dr. Sarraj,

"This is a huge improvement in these patients with large strokes who are not being offered the treatment at this point."

Dr. Sarraj expects the results to change treatment guidelines in the near future. "This will give a large number of patients the opportunity for a chance for improvement," he said.

"Conducting a trial at this level is not an easy task," Dr. Sarraj added. "First and foremost, I thank our [patients](#) and their families for their noble contributions to the trial, my co-investigators worldwide, my research team that was the heart and soul of the trial and University Hospitals which hosted the trial as the global coordinating center in the last two years since I came here."

More information: Amrou Sarraj et al, Trial of Endovascular Thrombectomy for Large Ischemic Strokes, *New England Journal of Medicine* (2023). [DOI: 10.1056/NEJMoa2214403](https://doi.org/10.1056/NEJMoa2214403)

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