

ENRICH study leads to first positive surgical trial in the deadliest type of stroke

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The results of a promising surgical treatment for hemorrhagic strokes, led by researchers at Emory University School of Medicine since 2017, were announced Saturday in a late-breaking clinical trial presentation at the American Association of Neurological Surgeons (AANS) meeting in Los Angeles.

The ENRICH (Early MiNimally-invasive Removal of ICH) trial demonstrated a positive

surgical outcome in the treatment of intracerebral hemorrhage (ICH). A randomized, multi-center clinical trial, ENRICH compared standard medical management to early minimally invasive parafascicular surgery (MIPS), using the NICO Corporation's BrainPath and Myriad technology.

Each year, two million people suffer hemorrhagic strokes, which are considered the deadliest, most costly and debilitating form of stroke. Hemorrhagic stroke occurs when a weakened vessel ruptures and bleeds into the surrounding brain, leading to the accumulation of toxic blood within the brain. Unfortunately, up to 50% of people who suffer from hemorrhagic strokes will die within 30 days.

Research suggests that removal of blood from the brain within 24 hours after bleeding starts could help reduce brain damage and death. Right now, the standard of care for patients is to give them medicine or monitor and see what happens, often called the "watch and see" approach. This can mean blood stays in the brain for longer, increasing the risk for complications.

"ENRICH is the first, randomized clinical trial to meet its primary endpoint, while improving outcomes for these deadly strokes," says Gustavo Pradilla, MD, co-lead investigator for ENRICH, associate professor of neurosurgery at Emory University School of Medicine and chief of neurosurgery for Grady Memorial Hospital.

"This trial will help to change how we treat hemorrhagic stroke moving forward," says Pradilla, who presented the findings at the AANS meeting.

The BrainPath device is a tool used to help surgeons get to the site of bleeding in the brain by carefully moving through its delicate folds and fibers. It gently moves aside brain tissue to create a path to the bleeding site. Once it gets there, the Myriad device, an automated suction and resection tool, can remove the clot.

"The 37 participating sites did a great job with the trial and carefully randomized and expertly managed the enrolled patients," says co-principal investigator Dan Barrow, the Pamela R. Rollins Chairman and Professor of Neurosurgery at Emory University. "We want to thank our brave patients and their families for entrusting us with their care and agreeing to participate in a trial to advance scientific knowledge for the benefit of others. Their selfless behavior is necessary to advance the scientific basis of medical care."

Other participating trial sites included: Mayo Clinic, Johns Hopkins University,

Washington University, Cleveland Clinic Foundation, University of Southern California, Brigham and Women's Hospital, Vanderbilt University, University of North Carolina and Penn State University.

At Emory, the ENRICH research team was comprised of a cross-disciplinary team from the neurosciences and emergency medicine. In addition to Barrow and Pradilla, supporting Emory faculty members on this research include: co-principal investigator Jonathan Ratcliff, MD; Michael Frankel, MD; Jason W. Allen, MD, PhD; David Wright, MD; and Alex Hall, DHSc, MS, RN.

For more information on the ENRICH trial, please visit: <https://clinicaltrials.gov/ct2/show/NCT02880878>