A new study comparing the outcomes of different types of stents used to treat cerebral aneurysms shows that the type of stent used affects a patient's immediate and long-term health outcomes. The study was presented at the Society of NeuroInterventional Surgery's (SNIS) 16th Annual Meeting.

Endovascular stent-assisted coiling is a new, minimally invasive procedure in which a stent is placed inside a wide neck aneurysm to anchor tiny coils that will protect damaged blood vessel walls. While the procedure has become more widely used, there has been little research on how each type of stent affects safety and outcomes.

Stent-assisted Coiling of Cerebral Aneurysms: Multi-center Analysis of Radiographic and Clinical Outcomes in 659 Patients compared the outcomes of endovascular coiling using three types of stents—Neuroform (NEU), Enterprise (EP), and Low-profile Visualized Intraluminal Support (LVIS).

"While all the stents were effective, we did find that the LVIS was associated with superior rates of angiographic occlusion in the treatment of cerebral aneurysms," said Dr. Maxim Mokin, lead author of the study, neurointerventionalist, and associate professor in the Department of Neurosurgery and Brain Repair at the University of South Florida. "This study's findings show that randomized trials to study the outcomes of different types of stents would be a good next step to further improve clinical outcomes and safety."

The study's researchers analyzed 659 patients with 670 cerebral aneurysms and considered factors such as patient characteristics, clinical outcomes, and complications. Researchers found a significant difference in complete occlusion among the three stents during angiographic follow-ups: LVIS 84%, NEU 78%, and EP 67%.