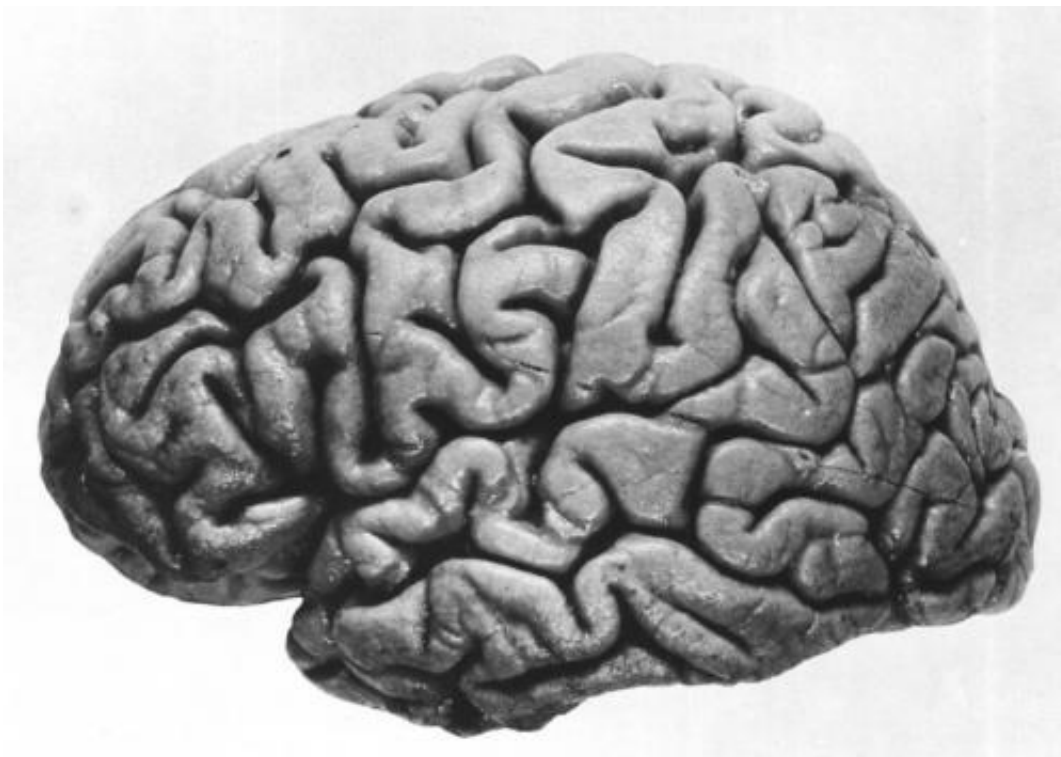


New research: Treatment advancements help reduce mortality from unruptured brain aneurysms

August 4 2020



Left hemisphere of J. Piłsudski's brain, lateral view. Credit: public domain

Mortality rates after treatment of unruptured intracranial aneurysms have substantially decreased in the past decade, according to new findings presented today at the Society of NeuroInterventional Surgery's (SNIS) 17th Annual Meeting.

The study, Trends in Mortality and Morbidity after Treatment of Unruptured Intracranial Aneurysm in the United States, 2006-2016, analyzed data from 21,609 patients in the Nationwide Inpatient Sample (NIS) database across a 10-year period. The research compares two treatments for unruptured intracranial aneurysms: microsurgical clipping and endovascular embolization. Microsurgical clipping involves an open brain surgery, whereas endovascular embolization is a minimally invasive procedure.

Patients who underwent endovascular embolization had a significantly higher rate of favorable clinical outcome—defined as discharge to home or acute rehabilitation facility—compared to microsurgical clipping group (91% vs 74%) and an average of 3 days shorter hospital stay. The utilization of endovascular embolization has increased in the past decade.

"Our research indicates that treatment of unruptured [brain aneurysm](#) has become exceedingly safer over the last 10 years due to advancement in both microsurgical techniques and [endovascular](#) technology," said Dr. Shahram Majidi, lead author of the study and Assistant Professor of Neurosurgery, Neurology and Radiology at Icahn School of Medicine at Mount Sinai Hospital and Director of Cerebrovascular Services at Mount Sinai Brooklyn. "While overall clinical outcomes have been significantly improved, we found a higher rate of favorable hospital outcome and lower [mortality](#) rate among endovascularly treated patients compared to microsurgical clipping."

The research also found that the overall rate of in-hospital mortality decreased from 0.9% in 2006 to 0.2% in 2016. Overall, 83% of the patients had favorable clinical outcomes. Other independent predictors of in-hospital mortality included advanced age (80 years old and older) and the presence of multiple comorbidities. Moreover, women and African Americans had a lower chance of favorable clinical outcomes

independent to the treatment modality.

More information: www.snisonline.org/

Provided by Society of NeuroInterventional Surgery

Citation: New research: Treatment advancements help reduce mortality from unruptured brain aneurysms (2020, August 4) retrieved 6 May 2024 from <https://medicalxpress.com/news/2020-08-treatment-advancements-mortality-unruptured-brain.html>

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