

Middle cerebral artery aneurysm surgery

Latest PubMed Middle cerebral artery aneurysm surgery Articles

- [Intraoperative cerebral perfusion monitoring with ultrafast power doppler imaging](#)
- [Comparative analysis of lumbar cerebrospinal fluid drainage versus lumbar puncture effectiveness in patients with aneurysmal subarachnoid hemorrhage](#)
- [Hemodynamic assessment of rupture risk during growth stages in middle cerebral artery aneurysms treated with coiling](#)
- [The risk of endovascular thrombectomy in acute ischemic stroke patients with large vessel occlusions harboring unruptured intracranial aneurysms](#)
- [Right atrial thrombus and paradoxical embolism risk in a trauma patient with patent foramen ovale: case report](#)
- [Effectiveness of Decompressive Craniectomy for Severe Cerebral Infarction Caused by Stanford Type A Acute Aortic Dissection: Report of a Case](#)
- [Evolving strategies in the management of vertebral artery dissecting aneurysms involving the posterior inferior cerebellar artery: a systematic review and meta-analysis](#)
- [Hydrogel Coils versus Bare Platinum Coils for the Treatment of Ruptured and Unruptured Aneurysms: An Updated Systematic Review and Meta-Analysis of Randomized Controlled Trials](#)

Surgery for a middle cerebral artery (MCA) aneurysm is a complex medical procedure that is typically performed to prevent the aneurysm from rupturing, which can lead to a potentially life-threatening brain hemorrhage. Here is an overview of the surgical options for treating an MCA aneurysm:

Clipping: In this procedure, a neurosurgeon makes an opening in the skull, called a craniotomy, to access the aneurysm. A small metal clip is then placed at the base of the aneurysm to isolate it from the main blood vessel. This prevents blood from flowing into the aneurysm and reduces the risk of rupture. Clipping is a common surgical technique for treating cerebral aneurysms, including those in the middle cerebral artery.

Endovascular coiling: This is a less invasive option compared to clipping. It involves threading a catheter through a blood vessel, typically in the groin, up to the aneurysm site in the middle cerebral artery. A coil is then released into the aneurysm, filling it and blocking blood flow into the aneurysm sac. This promotes clot formation and reduces the risk of rupture. Endovascular coiling may be a suitable option for some MCA aneurysms, but not all aneurysms are amenable to this treatment.

The choice of surgical method depends on various factors, including the size, shape, and location of the aneurysm, the patient's overall health, and the surgeon's expertise. The goal of surgery is to prevent the aneurysm from rupturing, which could lead to a subarachnoid hemorrhage or other neurological complications.

It's important to consult with a neurosurgeon who specializes in vascular and aneurysm surgery to discuss the best treatment options for your specific case. The outcome and recovery can vary from patient to patient, and the decision to undergo surgery should be made after a thorough evaluation of

the risks and benefits. Additionally, advancements in medical technology and surgical techniques continue to improve the outcomes and reduce the invasiveness of these procedures.

Indications

Microsurgical [clipping](#) may receive increased consideration in patients presenting with large (>50 ml) [intraparenchymal hematomas](#) and [middle cerebral artery aneurysms](#) ¹⁾.

Craniotomy for hematoma evacuation and aneurysm clipping is the treatment modality of choice for ruptured middle cerebral artery (MCA) aneurysms with intracranial hematomas. Recent literature suggests that endovascular coil embolization followed by hematoma evacuation can be an acceptable alternative.

MCA aneurysm rupture with concomitant large intraparenchymal or sylvian fissure hematoma formation carries a grave prognosis. Simultaneous hematoma evacuation and aneurysm clipping with or without craniectomy can be an effective treatment modality ²⁾.

Technique

[Middle cerebral artery aneurysm surgery technique](#)

¹⁾

Connolly ES, Jr, Rabinstein AA, Carhuapoma JR, Derdeyn CP, Dion J, Higashida RT, Hoh BL, Kirkness CJ, Naidech AM, Ogilvy CS, Patel AB, Thompson BG, Vespa P, American Heart Association Stroke Council, Council on Cardiovascular Radiology, Intervention, Council on Cardiovascular Nursing, Council on Cardiovascular Surgery, Anesthesia, Council on Clinical Cardiology. Guidelines for the management of aneurysmal subarachnoid hemorrhage: a guideline for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke*. 2012; 43:1711–1737

²⁾

Stapleton CJ, Walcott BP, Fusco MR, Butler WE, Thomas AJ, Ogilvy CS. Surgical management of ruptured middle cerebral artery aneurysms with large intraparenchymal or sylvian fissure hematomas. *Neurosurgery*. 2015 Mar;76(3):258-64. doi: 10.1227/NEU.0000000000000596. PubMed PMID: 25603109.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=middle_cerebral_artery_aneurysm_surgery

Last update: **2024/06/07 02:58**

