

# Microsurgical Clipping of a Recurrent Right MCA Aneurysm after WEB Embolization

Daniele Starnoni, Danielle Golub, Amir R Dehdashti

Department of Neurosurgery, North Shore University Hospital, Northwell Health

## Clinical Background

- 51-year-old woman with cysternal SAH (HH 3, MF 4) and right frontal ICH
- Ruptured right ophthalmic artery aneurysm
- Concomitant unruptured right MCA bifurcation aneurysm

## Initial Treatment (Index Presentation)

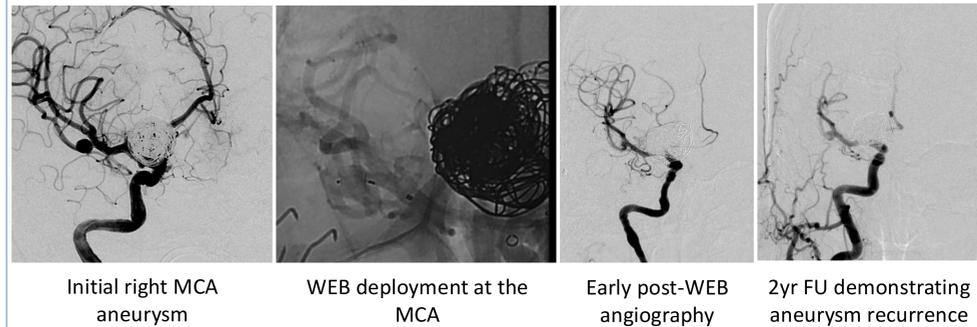
- Endovascular treatment of ruptured ophthalmic aneurysm (coiling and stent-assisted embolization)
- WEB embolization of unruptured right MCA bifurcation aneurysm
- VP shunt placement for hydrocephalus

## Follow-up

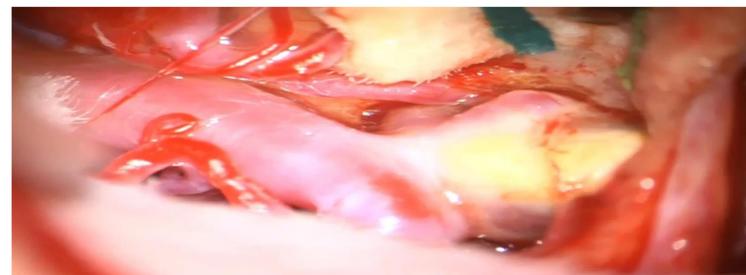
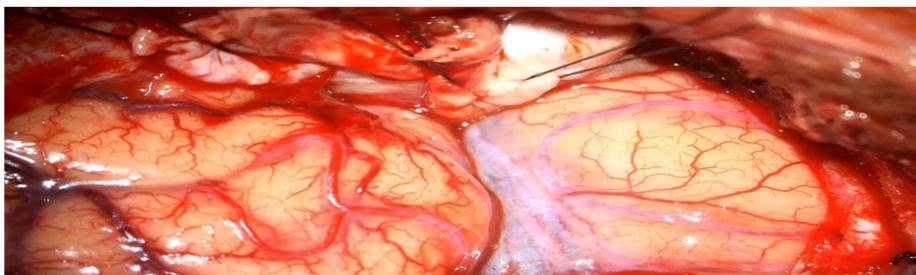
- Delayed (2-year) angiographic follow-up showing residual neck remnant of right MCA aneurysm
- Stable near-complete occlusion of ophthalmic aneurysm

## Decision-Making

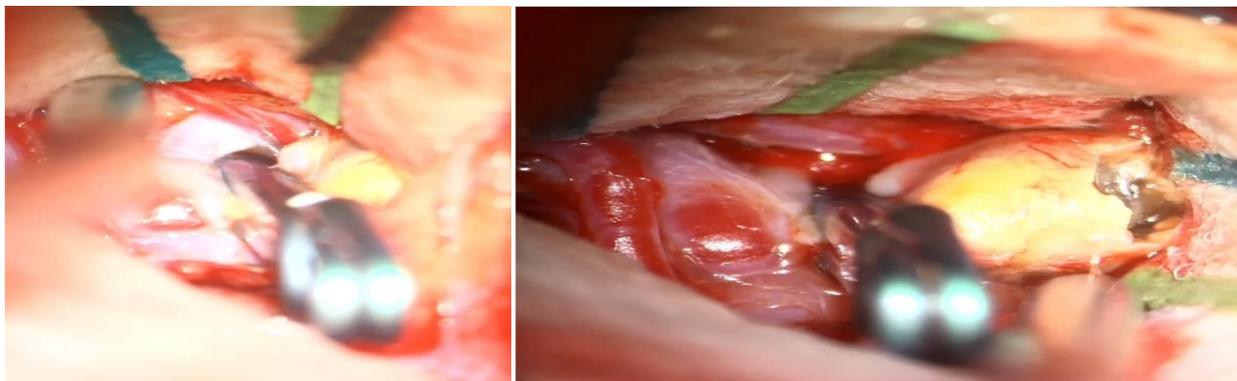
- Microsurgical clipping



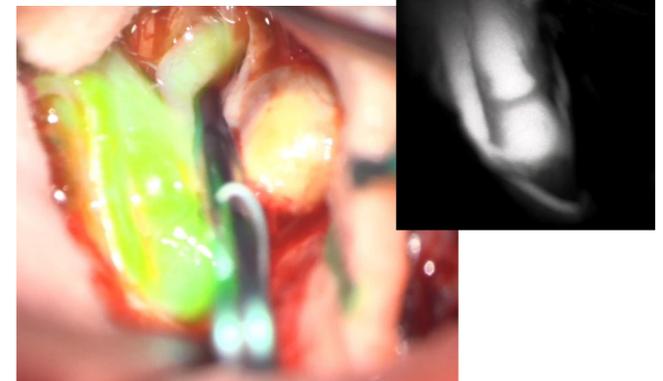
## Key Operative Steps



Pterional approach with sylvian fissure dissection and MCA bifurcation exposure



Microsurgical clipping across the aneurysm neck in the presence of prior WEB device



Intraoperative ICG angiography confirming complete aneurysm exclusion and vessel patency.

## Outcome

- Complete aneurysm exclusion confirmed by intraoperative ICG
- Preservation of parent vessels and perforators
- Histological analysis revealing WEB remnants
- No postoperative complications
- No new neurological deficits

## Take-Home Points

- WEB-treated aneurysms demonstrate increasing late recurrence, reaching up to ~19% beyond 1 year of follow-up
- Pooled data suggest a mid-term retreatment rate of ~5–7% for unruptured MCA bifurcation aneurysms treated with WEB
- Microsurgical clipping provides a durable treatment option for recurrent MCA aneurysms after WEB embolization.

## Contact

Daniele Starnoni, MD

North Shore University Hospital  
Northwell Institute for Neurology and Neurosurgery  
Department of Neurosurgery

300 Community Dr  
Manhasset, NY 11030

## References

1. Hassankhani A, Ghozy S, Amoukhteh M, Bilgin C, Kadirvel R, Kallmes DF. Long-term outcomes of the Woven EndoBridge device for treatment of intracranial aneurysms: A systematic review and meta-analysis. *Interv Neuroradiol*. 2023 Jun 26;15910199231184524. doi: 10.1177/15910199231184524. Epub ahead of print. PMID: 37357734.
2. Abdelsalam N, Wen DW, Pullicino R, Gravino G, Babatola F, Borg D, Aamir S, Hannan CJ, Chandran A, Puthuran M. Unruptured middle cerebral artery bifurcation aneurysms: long-term outcomes of endovascular techniques from an 'endovascular-first' policy center. *Neuroradiology*. 2025 Nov;67(11):3283-3292. doi: 10.1007/s00234-025-03791-y. Epub 2025 Oct 11. PMID: 41074987.