

# Tandem Overstacked Clipping for Giant Carotid Ophthalmic Aneurysm: 3-Dimensional Operative Video

Alvaro Campero, MD, PhD\*<sup>‡</sup>

Juan F. Villalonga, MD\*<sup>‡</sup>

Alice Giotta Lucifero, MD<sup>§</sup>

Sabino Luzzi, MD<sup>¶||</sup>

Matías Baldoncini, MD<sup>||</sup>  

\*LINT, Facultad de Medicina, Universidad Nacional de Tucumán, Tucumán, Argentina; <sup>‡</sup>Department of Neurological Surgery, Hospital Padilla, Tucumán, Argentina; <sup>§</sup>Neurosurgery Unit, Department of Clinical-Surgical, Diagnostic and Pediatric Sciences, University of Pavia, Pavia, Italy; <sup>||</sup>Neurosurgery Unit, Department of Surgical Sciences, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy; <sup>¶</sup>Laboratory of Microsurgical Neuroanatomy, Second Chair of Gross Anatomy, School of Medicine, University of Buenos Aires, Buenos Aires, Argentina; <sup>||</sup>Department of Neurological Surgery, Hospital San Fernando, Buenos Aires, Argentina

## Correspondence:

Matías Baldoncini, MD,  
Laboratory of Microsurgical  
Neuroanatomy,  
School of Medicine,  
University of Buenos Aires,  
Jorge Luis Borges 2240, Floor 4,  
1425 Buenos Aires, Argentina.  
Email: drbaldoncini@matias@gmail.com

Received, November 13, 2021.

Accepted, January 26, 2022.

Published Online, May 11, 2022.

© Congress of Neurological Surgeons  
2022. All rights reserved.

We present a 3-dimensional microsurgical video of a right giant carotid ophthalmic aneurysm operated using the tandem overstacked clipping technique. Microsurgical clipping of paraclinoid aneurysms presents unique technical challenges because of the anatomic complexity of the paraclinoid region.<sup>1-3</sup>

This case is a 55-year-old female patient with headaches and visual deficit. The patient provided consent to use the images and surgical video.

In the angiography, a right giant carotid ophthalmic aneurysm was observed.

Once the aneurysm is occluded by 3 clips, the dome is dissected 360° from the surrounding structures. To achieve greater reinforcement, 2 definitive clips are placed on the previous ones following the stacking line, providing an additive occlusion at the base of the aneurysm.

The patient evolved without any neurological deficit after the surgery, and the post-operative angiogram showed a complete aneurysm occlusion.

Another treatment option for these cases is flow diversion with adjunctive coiling. Surgical treatment of paraclinoid aneurysms is an excellent option with good postoperative results and low complication rates, particularly in hospitals with experience in the microsurgical resolution of aneurysms.<sup>1-4</sup>

**KEY WORDS:** Microsurgery, Overstacked clipping, Aneurysm, Vascular surgery

*Operative Neurosurgery* 23:E64, 2022

<https://doi.org/10.1227/ons.0000000000000212>

Watch now at <http://dx.doi.org/10.1227/ons.0000000000000212>

## Funding

This study did not receive any funding or financial support.

## Disclosures

The authors have no personal, financial, or institutional interest in any of the drugs, materials, or devices described in this article.

## REFERENCES

1. Kamide T, Burkhardt JK, Tabani H, Safae M, Lawton MT. Microsurgical clipping techniques and outcomes for

paraclinoid internal carotid artery aneurysms. *Oper Neurosurg*. 2020;18(2):183-192.

2. Kamide T, Tabani H, Safae MM, Burkhardt JK, Lawton MT. Microsurgical clipping of ophthalmic artery aneurysms: surgical results and visual outcomes with 208 aneurysms. *J Neurosurg*. 2018;129(6):1511-1521.
3. Seifert V, Güresir E, Vatter H. Exclusively intradural exposure and clip reconstruction in complex paraclinoid aneurysms. *Acta Neurochir (Wien)*. 2011;153(11):2103-2109.
4. Barrenechea IJ, Baldoncini M, González-López P, Campero Á. Optic nerve mobilization as an alternative to anterior clinoidectomy for superior carotid-ophthalmic aneurysms: operative technique. *World Neurosurg*. 2021; 152:137-143.