



Video Abstract

Endoscopic brainwash after clipping a ruptured aneurysm of the communicating segment of the intracranial carotid artery

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ABSTRACT

Background: Intracranial aneurysms are common vascular malformation occurring in 1-2% of the population and accounting for 80–85% of nontraumatic subarachnoid hemorrhages. About 10% of the ruptured aneurysm causing subarachnoid hemorrhage (SHA) develop intraventricular hemorrhage (IVH). In this scenario, the external ventricular drain (EVD) is a usual treatment for IVH. To reduce the time for the clot absorption, the neuroendoscopy with clot removal and ventricular irrigation is a feasible option, although not routinely used.

Case Description: This 2D video shows a case of a 60-year-old female, with sudden headache associated with nausea and vomit. The brain angiogram revealed aneurysm in the communicating segment of the left internal carotid artery, with 10.5 mm of diameter; also showed intraparenchymal, subarachnoid, and IVH, with a Fisher Modified Grade of 4 and a prompt aneurysm clipping and EVD were performed. Two days after the first surgical procedure, a neuroendoscopy was performed to remove the ventricular clots and improve the patient outcomes.

Conclusion: In the presented case, at the 6th postoperative month, the patient was Grade 1 in the Rankin Modified Scale and without hydrocephalus. This procedure can be used routinely as an additional tool to microsurgical clipping to improve patients outcome.

Keywords: Aneurysm, Brainwash, Clipping, Neuroendoscopy.

[Video 1]-Available on:

www.surgicalneurologyint.com

The video shows the patient's clinical presentation, preoperative imaging studies, surgical technique step by step, and finally, clinical and imaging outcome.

Annotations^[1-4]

- 1) 0:23 – Clinical presentation.
- 2) 0:41 – Neuroimaging findings.
- 3) 3:40 – Identification of key anatomical landmarks.
- 4) 4:07 – Carotid cistern opening.
- 5) 4:28 – Third ventriculostomy.
- 6) 5:39 – Clipping the aneurysm.

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- 7) 6:25 – Neuroendoscopy with ventricle full of clot.
- 8) 8:01 – Fenestration of the septum pellucidum.
- 9) 8:28 – Postoperative studies.
- 10) 8:45 – Disease background.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflicts of interest

There are no conflicts of interest.

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