Microsurgery for Upper Basilar Tip Aneurysm With Intraoperative Rupture: 3-Dimensional Operative Video

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In the last years, a shift from the microsurgical treatment to an endovascular therapy in patients with basilar apex aneurysm has been settled, part of this phenomenon is related to the significant tendency of vital perforators to be involved in the aneurysm dissection and clipping, which can implicate unfavorable outcomes. Nevertheless, microsurgical treatment remains the treatment that can provide the superior rates of stable and durable aneurysm occlusion, which is most important to young patients.

In this video, we present the case of a 45-yr-old female patient who complained of a sudden and severe headache and presented with progressive lethargy during the following 3 d.

At admission, computed tomography did not show abnormal findings. However, cerebrospinal fluid analysis showed erythrocytes and corroborated the clinical suspicion of spontaneous subarachnoid hemorrhage. The patient signed the Institutional Consent Form, which allows the use of his/her images and videos for any type of medical publications in conferences and/or scientific articles.

Angiography and magnetic resonance imaging revealed a saccular basilar apex aneurysm. It showed a wide neck as well as a lobulated dome with upward and slightly left projection. The aneurysm did not involve angiographically visible thalamoperforator arteries, which allowed the microsurgical treatment by the fronto-orbitozygomatic approach. However, during the interpeduncular cistern dissection, an intraoperative rupture of the aneurysm occurred. This video exemplifies the steps required to manage an intraoperative rupture of a basilar apex aneurysm.

KEYWORDS: Basilar artery, Basilar tip aneurysm, Ruptured aneurysm, Cerebrovascular surgery

Disclosure

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