

Other

3.1. Innovation

037

180 DAY RESULTS FOR EMBOLISE SURGICAL TRIAL: IMPACT OF ADJUNCTIVE MIDDLE MENINGEAL ARTERY EMBOLIZATION IN THE SURGICAL MANAGEMENT OF SUBDURAL HEMATOMA

¹Jared Knopman, ²Jason Davies, ³Adnan Siddiqui. ¹Weill Cornell University; ²University at Buffalo Neurosurgery, USA; ³University at Buffalo Neurosurgery

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Introduction Subacute/chronic subdural hematomas are common and frequently recur after surgical evacuation..

Aim of Study The effect of embolization of the middle meningeal artery on the need for repeat surgery has not been rigorously studied

Methods EMBOLISE is a multicenter, prospective, randomized, interventional, adaptive design trial of middle meningeal artery embolization combined with surgical evacuation of the subdural clot compared to surgery only. The primary endpoint was the rate of hematoma recurrence/progression requiring repeat surgical drainage.

Results A total of 197 patients were assigned to the treatment group and 203 to the control group. The absolute risk of the primary endpoint was 4.1% [1.8%, 7.8%] in the embolization group vs. 11.3% [7.3%, 16.5%] in the surgery only group (relative risk 0.36 [0.11, 0.80], $P = 0.008$). The secondary endpoint of deterioration in neurologic function (defined as having mRS < 3 at baseline and ≥ 3 at 90 days or having ≥ 3 at baseline and having an increase of \geq point at 90 days) occurred in 11.9% vs. 9.8%, respectively. No adverse events within 90 days were related to Onyx. The 30- and 90-day rate of serious adverse events, including death, were similar in both arms.

Conclusion In patients with symptomatic subacute/chronic subdural hematoma requiring surgical drainage, adjunctive middle meningeal artery embolization was associated with a lower rate of hematoma recurrence/progression requiring repeat surgical drainage, without any increase in adverse events. Adjunctive middle meningeal artery embolization should be considered for patients presenting with subacute/chronic SDH requiring surgical evacuation.

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Disclosure of Interest yes Funded by medtronic, with consulting agreements for Drs. Knopman, Davies, and Siddiqui.

Case Reports

Aneurysms

P001

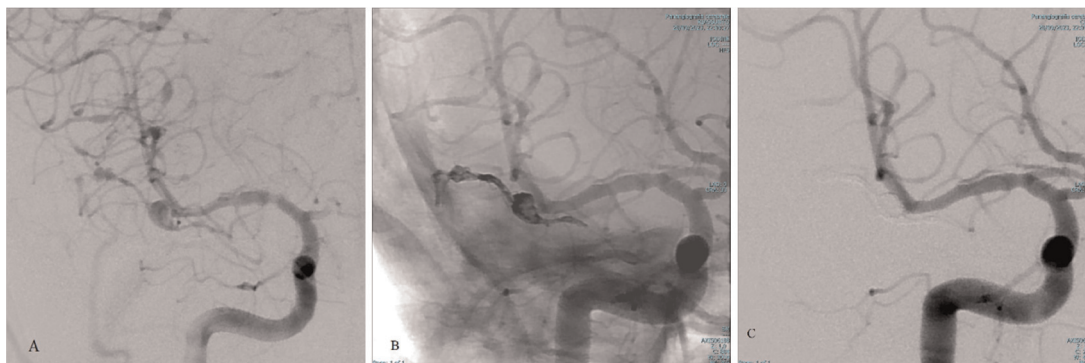
SUBARACHNOID HEMORRHAGE ASSOCIATED TO MULTIPLE INTRACRANIAL MYCOTIC ANEURYSM IN CONGENITAL HIV WITH VZV LEPTOMENINGITIS: ENDOVASCULAR TREATMENT OF RUPTURED MYCOTIC ANEURYSM WITH ETHYLENE VINYL ALCOHOL COPOLYMER (ONYX)

¹Paolo Rigamonti, ¹Daniel Volterra, ¹Tze Yu, ¹Andrea Gioppo, ¹Taereh Toluian, ²Matteo Giavarini, ³Luca Valvassori. ¹Ospedale San Carlo, Milano, Italy; ²Università degli Studi di Milano, Milano, Italy; ³Asst Santi Paolo Carlo, Milano, Italy

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Introduction A mycotic aneurysm is a dilation of the arterial wall secondary to infection. While typically caused by bacterial infections, fungal and viral infections can also be responsible. They are rare, accounting for only a small fraction of cerebral aneurysms, with a higher incidence in immunocompromised patients. Typically, they manifest as distal, multiple, and fusiform aneurysms.

Case Description We present the case of a 30-year-old female with HIV infection and poor adherence to antiretroviral therapy, who presented with headache and fever. Initial imaging (NCCT) showed no abnormalities. Four days later, she developed right hemiparesis and worsening headache. Complementary imaging (CT/CTA) revealed a left thalamic acute/subacute ischemic lesion without vascular abnormalities. Due to persistent headache and meningeal signs, CSF analysis was conducted, revealing VZV infection, prompting initiation of antiviral therapy and reinstatement of antiretrovirals. Fifteen days later, an MRI revealed a prior subarachnoid hemorrhage and an aneurysmal lesion located distally in the right M1, along with additional suspicious lesions in the surrounding vasculature. DSA confirmed multiple intracranial aneurysmal lesions, with the largest coinciding with the hemorrhage site. Endovascular treatment with Onyx embolization was performed, resulting in complete occlusion of the aneurysm along with the distal segment of the fronto-basal branch (figure 1a, b, c). Subsequent DSAs showed progressive reduction of the remaining aneurysms. PCR and culture tests confirmed viral eradication. The patient was discharged with no neurological deficits.



Abstract P001 Figure 1