Unruptured middle cerebral artery aneurysm case reports

A patient had an unruptured middle cerebral artery aneurysm and basilar apex aneurysms and elected for surgical clipping of both lesions. An orbitozygomatic craniotomy ipsilateral to the MCA aneurysm was performed to permit the clipping of both lesions. The dissection initially focused on exposure of the middle cerebral artery aneurysm and then focused on the carotid-oculomotor triangle to permit basilar apex exposure and aneurysm clipping. The MCA aneurysm was clipped second. Postoperative imaging demonstrated complete obliteration of both aneurysms. The patient gave informed consent for surgery and video recording. Institutional review board approval was deemed unnecessary [1].

2016

Spontaneous complete thrombosis of an unruptured intracranial aneurysm leading to ischemic stroke is rare. Fomenko et al., present a case of a 56-year-old man who suffered an acute left middle cerebral artery (MCA) infarction, attributable to complete thrombosis of an unruptured saccular MCA bifurcation aneurysm with occlusion of the parent artery. The presenting hemiparesis and aphasia partially improved over a long hospital rehabilitation stay. Follow-up imaging demonstrated no recanalization of the aneurysm or parent vessels. This is the first documented case of isolated MCA territory infarction due to complete spontaneous thrombosis of a saccular aneurysm [2].

2015

A 82-year-old female with no neurological deficits underwent a clipping for a giant middle cerebral artery (MCA) aneurysm. Immediately after surgery, she presented with hemichorea-hemiballismus (HC-HB) on the left side. Postoperative angiograms and single-photon emission computed tomography demonstrated the hyperperfusion in the right frontal cortex and the decreased perfusion in the basal ganglia, indicating that the abrupt hemodynamic changes due to the obliteration of the giant aneurysm caused the dysfunction of the frontal cortical and subcortical pathway and the basal ganglia. Administration of tiapride hydrochloride was dramatically effective in controlling the HC-HB until the hyperperfusion resolved. Single-photon emission computed tomography obtained 8 weeks after surgery revealed that the cerebral blood flow had been normalized in the right frontal cortex. The relative hypoperfusion of the right basal ganglia was also resolved. Then tiapride hydrochloride was discontinued without a relapse of HC-HB.

This case appears consistent with the theory that the connecting fibers responsible for the development of HC-HB are also located in the frontal lobe. The treatment of giant aneurysms involving the M1 portion can cause abrupt hemodynamic changes in both frontal cortex and the basal ganglia, which can potentially induce postoperative movement disorders [3].

2014

A 69-year-old woman undergoing elective stent-assisted coiling of an unruptured right middle

cerebral artery (MCA) bifurcation aneurysm, who was found to have severe attenuation of somatosensory evoked potential (SSEP) and electroencephalography (EEG) during the procedure. Intra-operative DynaCT showed hypodense cortical vessels consistent with cerebral air embolism [4].

2013

Progressive visual field defect caused by an unruptured middle cerebral artery aneurysm [5]

2012

Kim et al. present a rare case of delayed symptomatic thromboembolism in an ischemic stroke patient who had undergone coil embolization for unruptured middle cerebral artery (MCA) aneurysm [6].

A 22-year-old female patient presented to the Emergency Department of a tertiary care hospital with symptoms of headache and nausea. She has been on a regular follow-up for the preceding three and a half years after being diagnosed as systemic lupus erythematosus (SLE). She had been treated earlier for SLE nephritis in the same institution, and had two relapses of nephrotic syndrome in the last three and a half years for which she had been treated and had achieved complete remission. All possibilities of headaches in background of SLE were considered. CNS examination was inconclusive. There was no nuchal rigidity or no cranial nerve deficits. Fundoscopy and Plain CT scan of brain were normal. The possibility of CNS-lupus was considered considering the high values of antiphospholipid antibodies (APLA). Treatment was initiated accordingly; however, there was no improvement in her symptoms. Although being rare in a patient with SLE, the possibility of an aneurysm was considered. Four vessel digital substraction angiography revealed two unruptured aneurysms of 7.2 mm and 3.9 mm in the left middle cerebral artery (MCA) territory. Craniotomy and aneurysmal clipping was done successfully, and the patient was relieved of her symptoms. A high degree of suspicion towards a rarer cause clinched the diagnosis of a left MCA territory stem artery aneurysm. This rationale of strong suspicion and discussion of differential diagnosis brought a change in the management of the patient [7].

2010

A case with unruptured MCA aneurysm associated with DMCA and a dolichoectasic anterior cerebral artery. In this case, surgical intervention was not prioritized because of the narrowed and calcified parent artery of the aneurysm. In selecting treatment for a patient with multiple vascular anomalies, the pathophysiology of each anomaly should be estimated carefully [8].

2003

A 73-year-old man with an unruptured aneurysm of the left middle cerebral artery. The initial sign was complex partial seizures. A standard scalp electroencephalogram was normal while

neuropsychological tests revealed a slight deficit of episodic memory. Brain MRI showed an aneurysm at the left middle cerebral artery bifurcation. Cerebral angiography confirmed the presence of a saccular aneurysm at the left middle cerebral artery bifurcation, with a maximum diameter of 12 mm. This case had two main characteristic features: seizures had a quite late onset and were the only symptom the patient experienced [9].

References

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