

## Traumatic Pericallosal Aneurysm in a 7 year-old Child: A Case Report

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### INTRODUCTION

Intracranial aneurysm in children is a rare pathology, accounting for merely 0.5-4.6% of all cerebral aneurysms. This pathology are characterized by predominance in male subjects, larger size and a prevalent distal localization. Traumatic intracranial aneurysms are occurring in fewer than 1% of patients, they can occur following blunt or penetrating head trauma. The most common location of such lesions in children is the pericallosal or adjacent branch of the anterior cerebral artery, where a head impact exerts sudden decelerating shearing forces on the arteries tethered on the brain surface against an immobile falx cerebri, weakening the arterial wall.

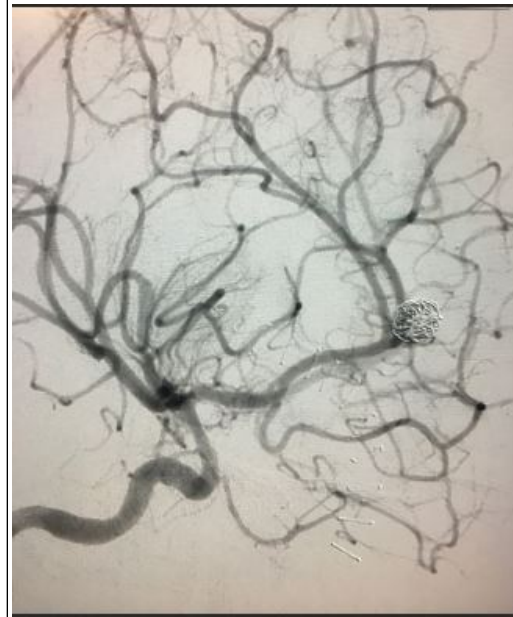
Pericallosal Aneurysm Pre Embolized



Pericallosal Aneurysm Post Coils  
Embolization



Pericallosal Aneurysm Post Coils  
Embolization - Lateral



### METHODS

Review of case of a 6-year-old male patient, that suffered a motor vehicle accident without any neurological sequel at that time. Three weeks later, the patient present a hard headache with a right frontoparietal distribution and altered mental status. The patient was transferred to the ER, a CT was ordered and a left frontoparietal acute subdural hematoma was found. Surgical arrangements were done for a left frontoparietal craniectomy with evacuation of hematoma. The patient was kept under neurological observation for 3 days and was discharged home neurologically stable at that time. One day later, the patient had a clonic tonic seizure episode with neurological deterioration, a CT with evidence of diffuse cerebral edema was performed and a contralateral craniectomy was indicated. Postoperative CT angiography was ordered, observing a right pericallosal aneurysm, for which a digital subtraction angiography (DSA) was indicated.

### RESULTS

Endovascular treatment of the aneurysm was planned which was performed under general anesthesia. Initially, a 5F sheath was placed into the left Femoral artery. A 5F Support Catheter was placed coaxially within the cervical segment of left ICA and subsequently a Micro-catheter was delivered into the aneurysmal sac measure 11.5x7.3mm, using 6 different featured and sized detachable coils. A successful embolization was achieved without remaining flow to the aneurysm and appropriate measures for increased intracranial pressure were taken.

### CONCLUSIONS

Surgical craniotomy for traumatic intracranial aneurysm is a high-risk operation. Advancements in minimally invasive technology have allowed for endovascular reconstruction of traumatic aneurysm, reducing the surgical risk evidenced by good clinical evolution in the patients treated.

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