



SUBCORTICAL SURGERY GROUP

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SSG CASE REVIEW

Minimally Invasive Parafascicular Surgery (MIPS) Cavernous Malformation

Clinical Presentation

A 4 year-old female presented to the Emergency Department with lethargy, confusion, nausea and vomiting. A head CT showed ~2cm left thalamic mass which was suspected to be a vascular abnormality.

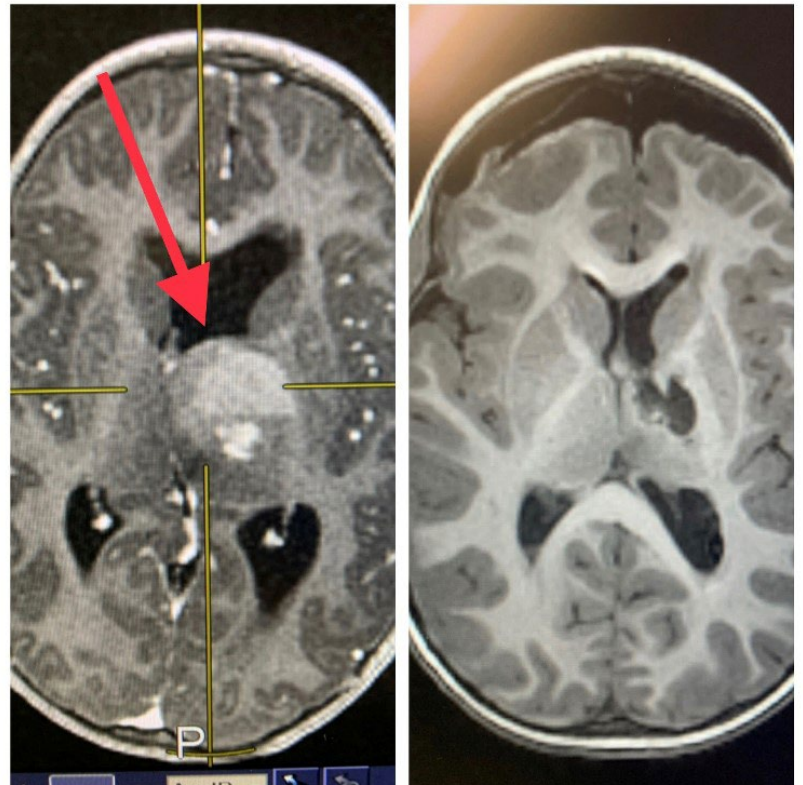
Surgical Management

The patient was taken to the operating room, prepped and draped in the usual manner. A right frontal trajectory was planned using MIPS for a contralateral transventricular approach to access the left ventricle. It was determined the distance from bone to target was approximately 56mm; therefore, a 60mm tubular retractor was chosen for access. A small hairline skin incision was created using a non-sterile retractor to ensure the bone flap was large enough to accommodate collar and trajectory of the access device sheath. After cutting the flap, a linear dural incision and shallow arachnoid incision was made. The MIPS surgical approach was followed and the abnormality was immediately visualized post cannulation. Bipolar and suction were used to open the capsule of the lesion and xanthochromic cyst fluid with mixed hemorrhagic products was immediately encountered. A biopsy of the specimen was sent to pathology which was determined reactive gliosis.

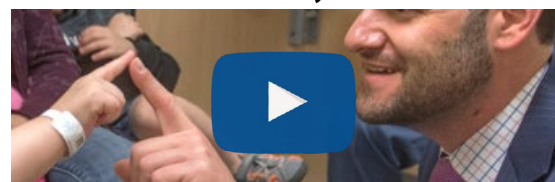
Semi automated resection continued with bipolar and suction until GTR was achieved. iMRI confirmed GTR post operatively

Clinical Course & Outcomes

Post operatively the patient woke-up neurologically intact, talking and moving all limbs. Patient fully recovered with no deficits. Pathology confirmed the mass to be a cavernous malformation.



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