Central Sinus Venous Thrombosis: When the Pressure is Too High

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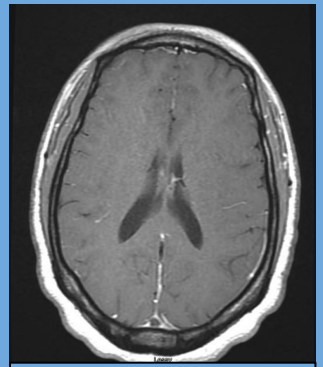
Introduction

- 0.5-3% of All Strokes, 75% Women
- CSVT Pathogenesis:
  - Occlusion of veins → Increased Hydrostatic Pressure
  - Sinus Occlusion → Increased ICP
- Initial Therapy: Anticoagulation

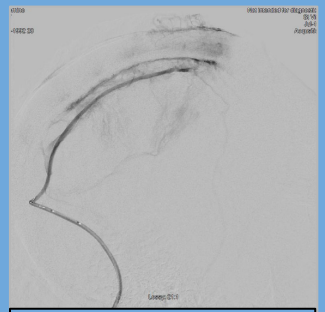
Patient Case

- 28 y/o Female presents with Headache
- PMH: Pseudotumor Cerebri, Migraines, and recently started OCPs
- Day 2: MRV revealed CSVT
- Overall course complicated by increased ICP despite appropriate anticoagulation, cerebral hemorrhage and widespread infarction
- CSVT Therapies utilized: Diamox, Hypertonic Saline, Phenobarbital, Extraventricular Drain, Thrombectomy x2, and Decompressive Craniectomy



Initial MRI brain demonstrating empty delta sign

Worsening clot burden of the left transverse sinus



Sagittal sinus before thrombectomy

Sagittal sinus after thrombectomy

Discussion

- Most patients respond well to therapeutic anticoagulation
- Refractory ICP is incredibly uncommon, particularly in young patients
- Lack of specificity in symptoms makes CSVT difficult to diagnose

Conclusion

- Clinicians should have a high suspicion for CSVT in patients with known risk factors
- Consider continuing mainstay therapies that will ultimately correct the underlying problem

References

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