

Intravenous Thrombolysis Following Epidural Placement and Removal

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ASRA guidance: Avoid thrombolytics for ~10 days after puncture of non-compressible vessels (Kopp 2024)

Neuraxial consideration: IV thrombolytics generally discouraged within 5 - 7 days of epidural placement/removal

Stroke in pregnancy: ~30 per 100,000 pregnancies (Swartz 2017)

Ischemic: 12.2

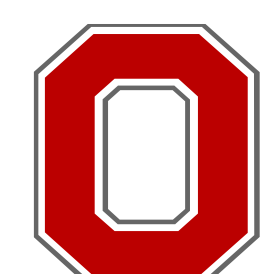
Hemorrhagic: 12.2

CVST: 9.1

Etiologies

Hemorrhagic: aneurysm, AVM, pregnancy-induced HTN, HELLP, preeclampsia/eclampsia, coagulopathy

Nonhemorrhagic (arterial, CVST): cardioembolism, coagulopathy, preeclampsia/eclampsia



Case Summary:

- 25-year-old G5P3 at 38w3d (suspected T21), dural puncture epidural with 25G Pencan; uncomplicated vaginal delivery

POD1 Neurologic Event:

- Severe headache with left-sided weakness and sensory changes
- NIHSS 5; treated with IV tenecteplase ~16 hours after epidural removal

Complications & Workup:

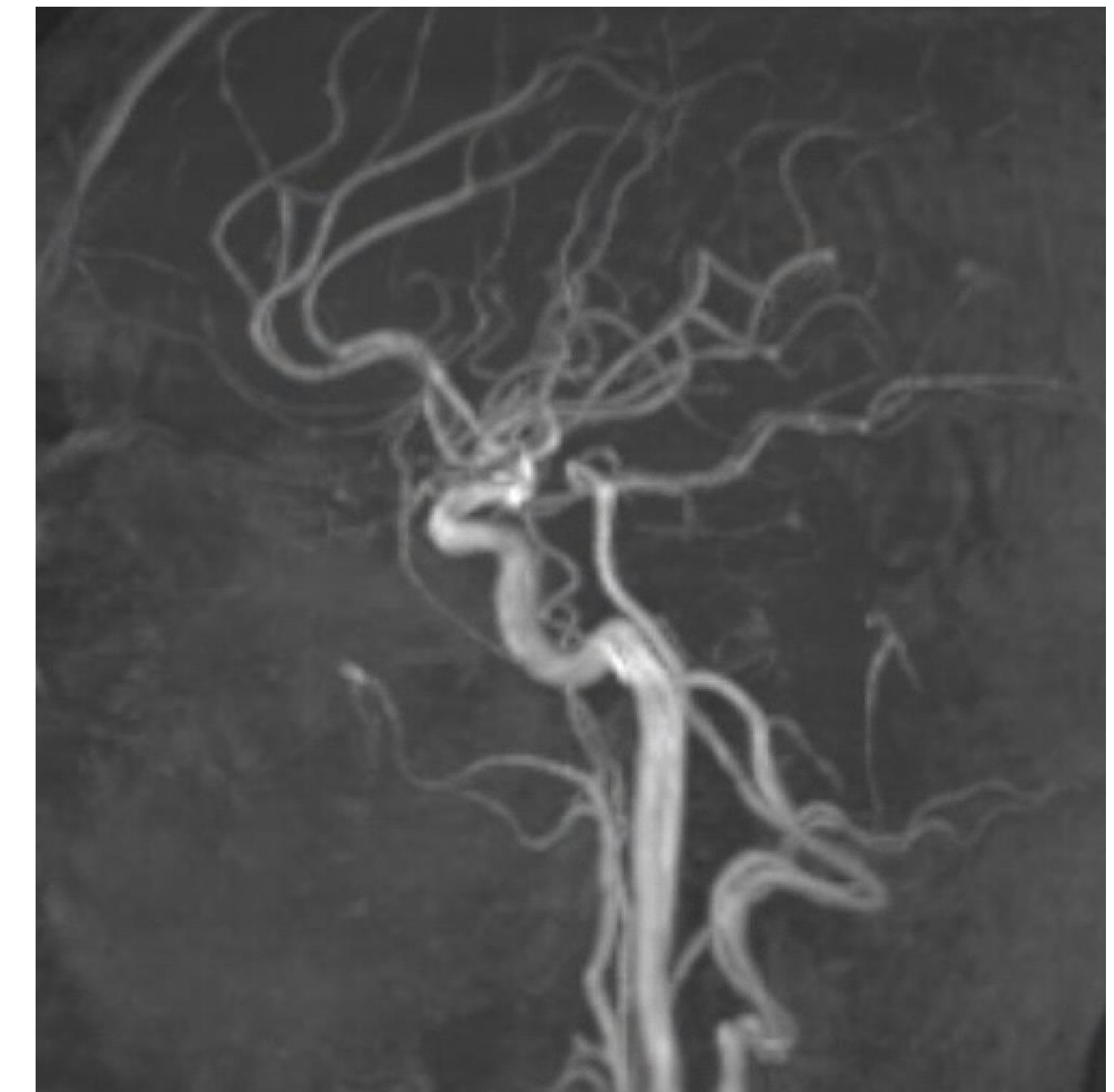
- Postpartum hemorrhage (uterine atony) requiring uterotonics, Jada device, transfusion
- CT/CTA, MRV, MRI negative for stroke or CVST

Outcome:

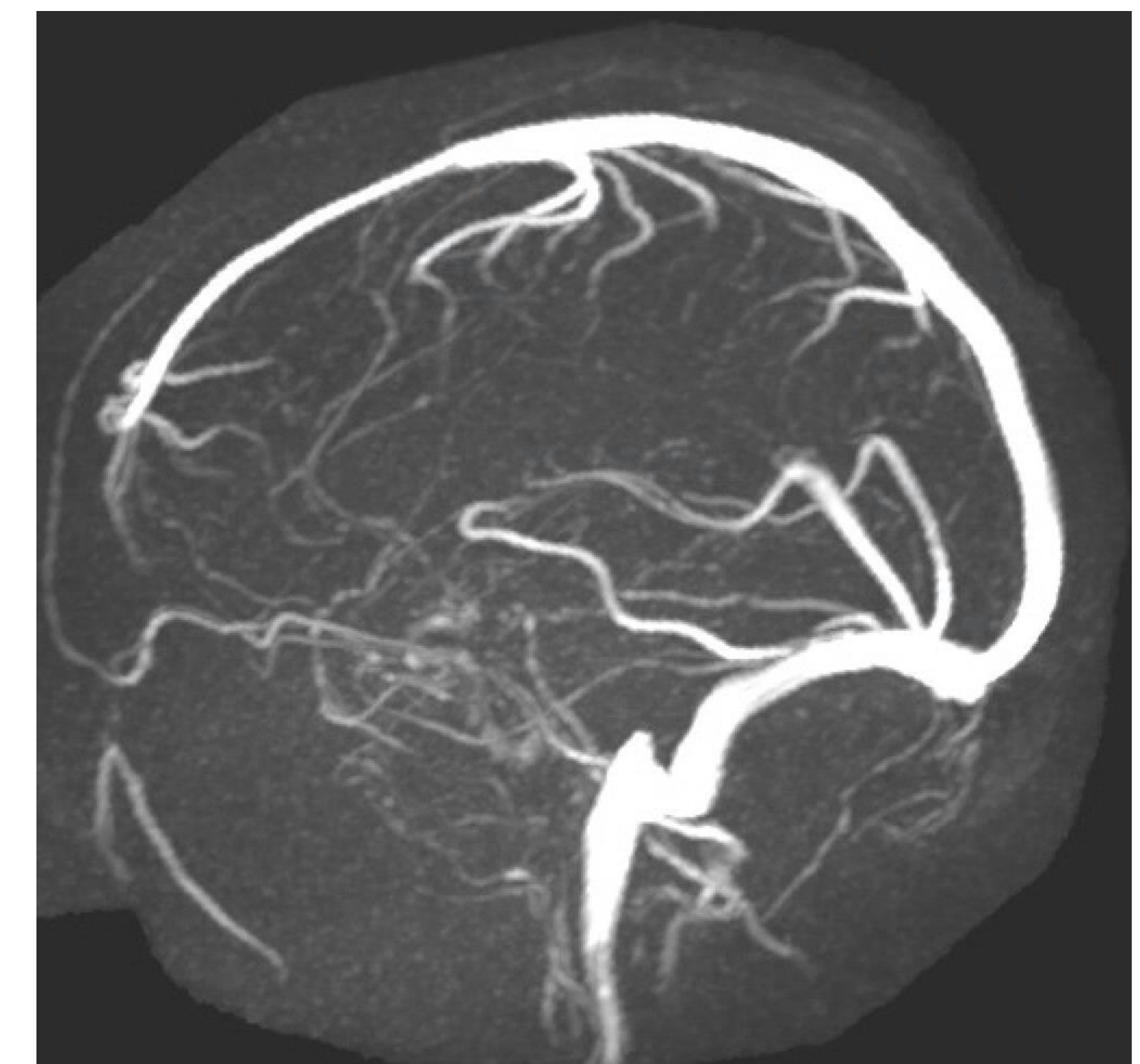
- Rapid neurologic recovery; no intracranial hemorrhage
- Persistent headache improved with ibuprofen/caffeine
- Discharged day 4 with follow-up



MR Arteriography - negative



MR Arteriography - negative



MR Venography - negative



Maintain broad differential in postpartum neurologic deficits:

- Ischemic stroke
- Hemiplegic migraine
- Cerebral venous sinus thrombosis
- Reversible cerebral vasoconstriction syndrome
- Postpartum angiopathy
- Post-dural puncture headache

Key risk factors for stroke in pregnancy:

- Hypertension
- Preeclampsia/eclampsia spectrum

Careful diagnostic evaluation is critical to guide management in the setting of recent neuraxial anesthesia.

Individualized risk–benefit assessment: stroke morbidity vs thrombolysis vs neuraxial hematoma

References

Swartz RH, Cayley ML, Foley N, et al. *Int J Stroke*. 2017;12(7):687–697. doi:10.1177/1747493017723271.

Kopp SL, Vandermeulen E, McBane RD, et al. *Reg Anesth Pain Med*. 2025. doi:10.1136/rapm-2024-105766.