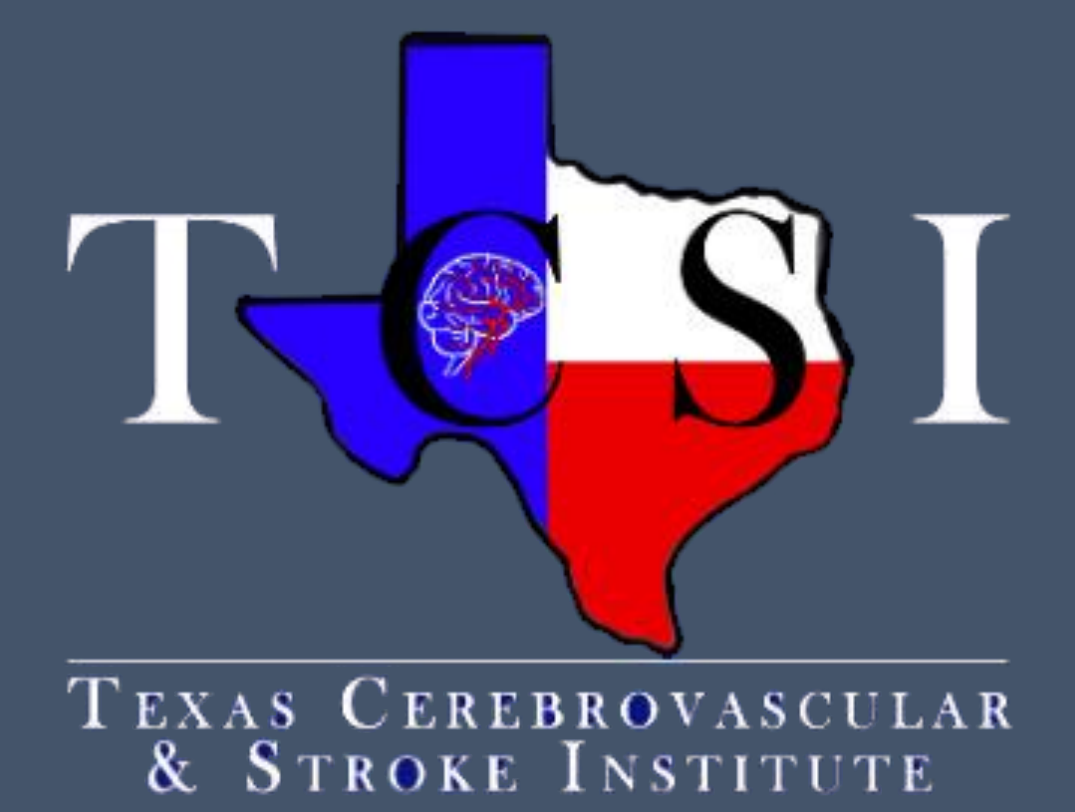




Rare Ischemic Fibrocartilaginous Embolic Stroke to the Basilar Artery



Fibrocartilaginous cerebral embolism (FCE) is a rare etiology of ischemic stroke with only one previously described case. To our knowledge this is the first reported case of mechanical embolectomy (ME) in a patient with fibrocartilaginous cerebral embolism.

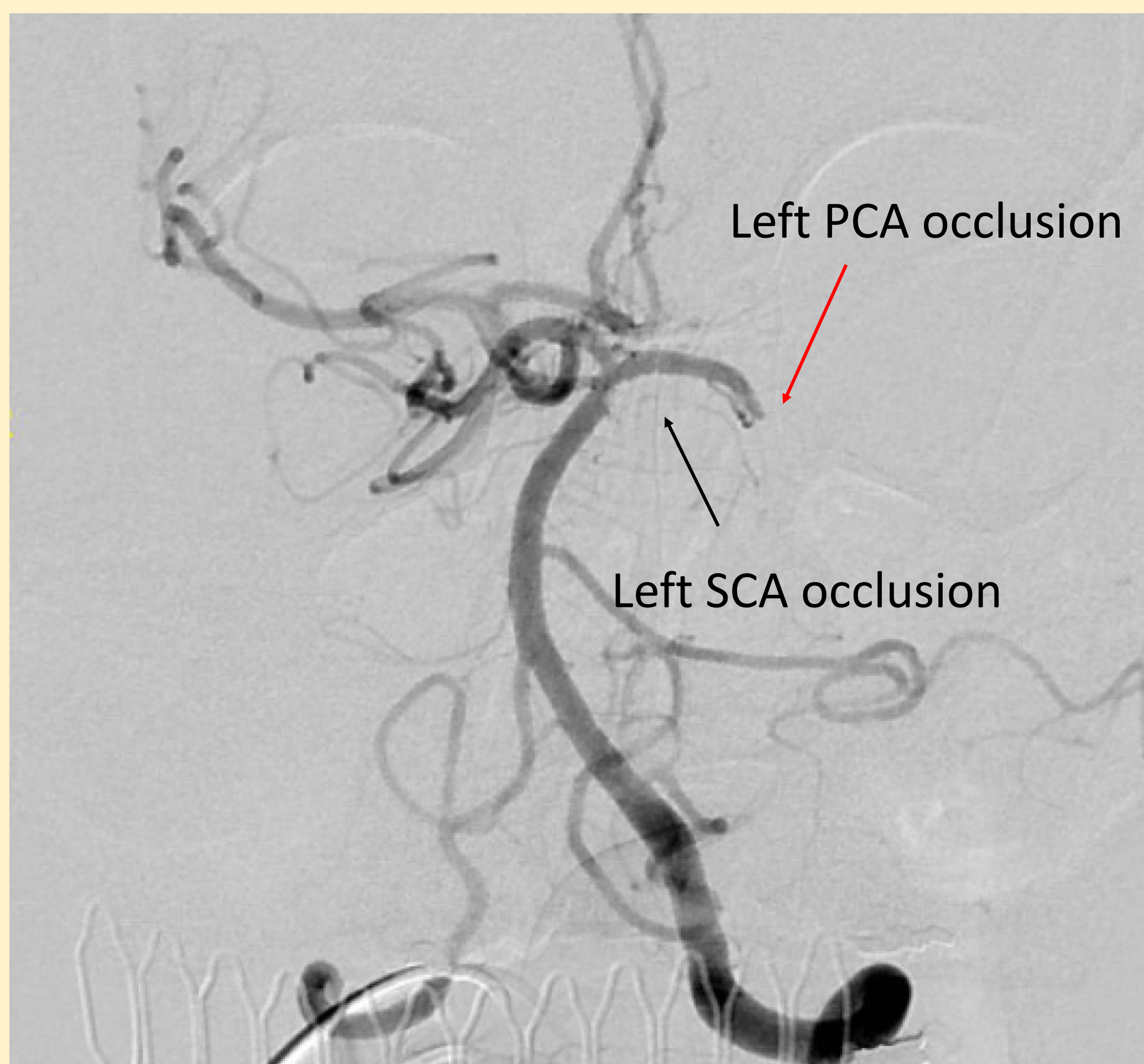
CASE: A 51-year-old right-handed African-American woman with a history of steroid injections for left shoulder pain presented with acute onset of dysarthria, nystagmus and mild ataxia with an NIHSS of 6 to an outside hospital. A NCCT head and CTA head and neck were performed. The NCCT head was unremarkable. The CTA revealed a sub-total occlusive filling defect at the C5/C6 level in the dominant left VA V2 segment, with a prominent lateral disc protrusion at this level. There was a partial filling defect in the left mid BA and occlusion of the distal BA extending into the left P1 segment.

METHODS: A 6 fr Cerebase sheath was advanced into the left VA proximal to the C5/C6 level. An AXS Catalyst 6 132cm intermediate catheter was advanced over a Phenom 21 microcatheter and Synchro 2 soft guide wire through the Cerebase into the left VA and advanced to the proximal BA under continuous aspiration. After the microcatheter and guide wire were removed, a 60cc locking syringe was connected to the Catalyst 6 and aspiration thrombectomy was performed.

RESULTS: An emergency aspiration thrombectomy was performed to retrieve the embolus and relieve the symptoms. Follow up angiography revealed partial improvement in the opacification of the BA. Two additional aspiration thrombectomy passes led to continuous improvement in the BA with ultimate reperfusion of the basilar artery. Remarkably, the patient's symptoms had completely resolved, and the patient made a complete recovery. A NIHSS score of 0 was given. The patient was released and follow-up for future stroke complications was evaluated.

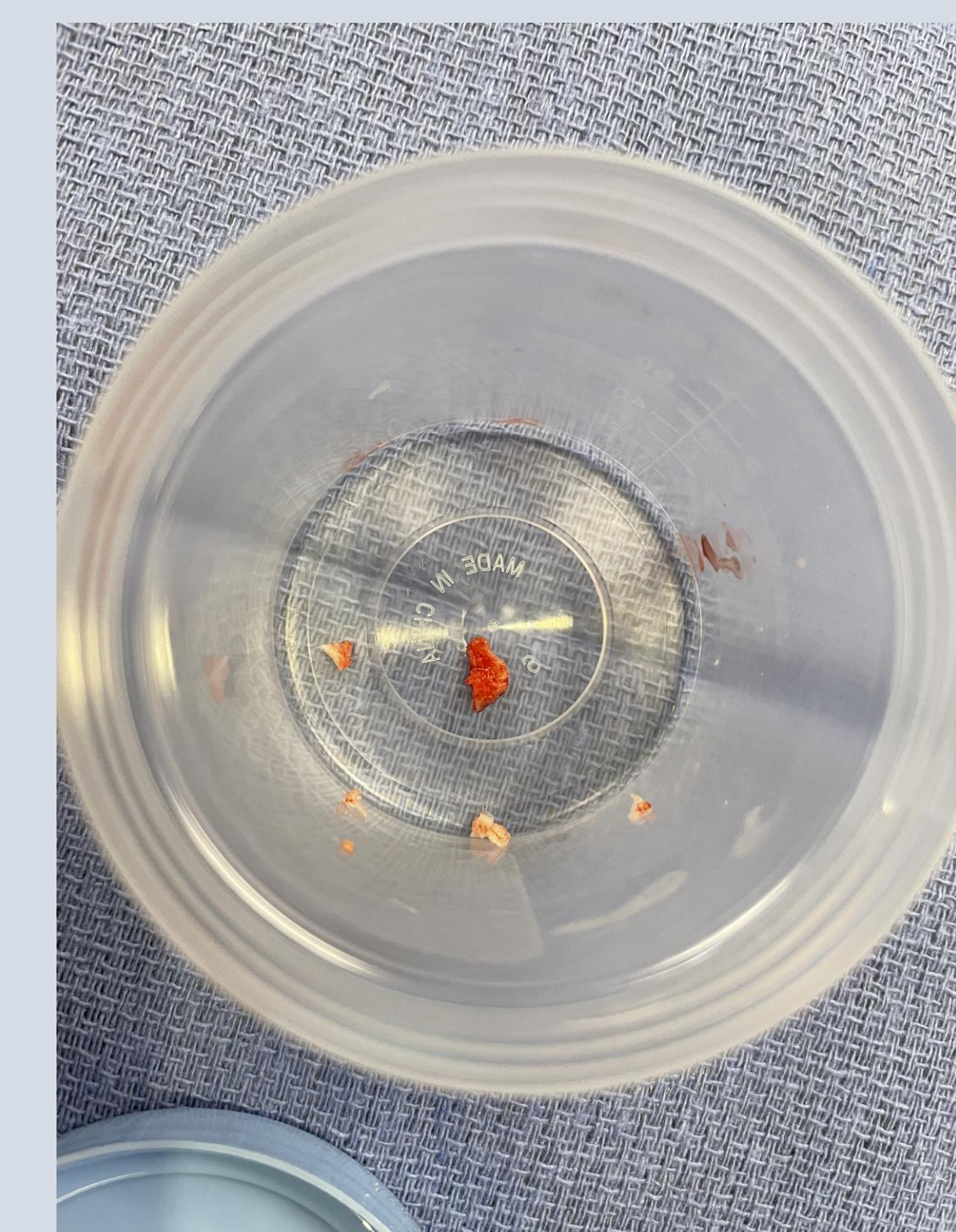


Injection of left VA prior to embolectomy revealing BA occlusion.



CTA head and neck following three passes of contact aspiration. Complete reperfusion of BA is observed, but persistent occlusion of left SCA and left PCA P2 segment remains.

DISCUSSION: Only one case of FCE resulting in cerebral ischemia exists in the literature. In that case, a 17-year-old female developed a right cerebral infarct and died from complications of her stroke. Autopsy confirmed FCE in the cerebral and coronary vessels suggesting a central source of embolism. In contradistinction, in this case, we postulate a left posterior lateral disc extruded into the left VA through a defect created by a lateral disc or uncovertebral osteophyte. In this unusual case of FCE, aspiration thrombectomy removed this foreign material from the BA. The embolus was not secured by a stent-retriever. We believe the fibrous nature of the embolus could explain this observation. However, we caution drawing any definitive recommendation from this isolated case. A similar experience in calcific emboli has been reported by Dobrocky et al.



Narrative
Final Pathologic Diagnosis
BASILAR ARTERY, THROMBECTOMY:
FIBROCARILAGINOUS EMBOLUS.

REFERENCES

1. Touro-Gonzalez, G. et al. Acute Ischemic Stroke from Fibrocartilaginous Embolism to the Middle Cerebral Artery. Stroke. 1993 May;24(5):738-40.
2. Dobrocky, Tomas et al. Thrombectomy of Calcified Emboli in Stroke. Does Histology of Thrombi Influence the Effectiveness of Thrombectomy?

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