Hairpin Aorta

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Clinical Image

A 68-year old female presented with generalized tonic-clonic seizures, secondary to temporal lobe edema stemming from an unruptured posterior communicating artery aneurysm. She was neurologically intact. During diagnostic cerebral angiography, the descending aorta was remarkably tortuous (Panel A, white arrow marks catheter within aorta), making catheter manipulation quite difficult. Further evaluation with computed tomographic angiography revealed a 180° hairpin turn in the descending thoracic aorta (Panel B, asterisk) secondary to severe kyphotic and scoliotic deformity following a remote thoracic vertebral fracture. Due to the aberrant anatomy, endovascular coil embolization of the aneurysm (Panel C, black arrow) was not possible, as the required catheters and microwires did not have adequate length to compensate for the markedly elongated aorta. The patient then underwent a craniotomy for microsurgical clipping, which successfully obliterated the aneurysm (Panel D). She was maintained on levetiracetam and discharged home three days after surgery.