Spontaneous Cervical Epidural Hematoma Mimicking Acute CVA

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INTRODUCTION

- Rapid recognition and timely intervention have become the mainstay of treatment for acute cerebrovascular events in the United States.
- However, this process can at times be fraught with difficulties as stroke 'mimics' have been found to account for as much as 24.8% of all presentations of acute stroke.
- One of these mimics includes spontaneous spinal epidural hematoma (SSEH), which is an idiopathic condition that can mimic central stroke-like symptoms, often with disastrous consequences should thrombolytics be administered.

CASE DESCRIPTION

- 83-year-old female who presented as a stroke activation after experiencing neck pain with upper extremity weakness.
- Paramedics noted diffuse weakness, normal blood glucose, no abnormal vital signs, and no speech difficulties or confusion.
- Initial vital signs were heart rate 86 bpm, 164/72, 15 breaths per minute, 94% O2 on room air, 36.7C.
- Examination revealed 0/5 strength in right upper extremity, 2/5 strength in left upper extremity, and 1/5 strength in bilateral lower extremities.
- She was also found to have global diminished sensation to light touch throughout all four extremities.
- Additional pertinent findings included reproducible neck pain, increased with palpation and lateral rotation of the neck, along with limited range of motion to flexion and extension.
- The patient had emergent stroke imaging including non-contrast Head CT, CT Angiogram Head and Neck, and CT Brain Perfusion.

INTERVENTION

- The patient's CT cervical spine with contrast was remarkable for hyperdense soft tissue attenuation in the epidural space of the cervical spine most pronounced posteriorly likely representing a posterior epidural hematoma.
- The hematoma was causing severe spinal canal stenosis and probable compression of the spinal cord.
- There was alternating hypertension and hypotension which were managed appropriately with vasopressors.
- Her mental status remained stable and neurologic exam was unchanged, with continued motor and sensory deficits.
- She was given 1 unit of platelets and Desmopressin (DDAVP) in the setting of clopidogrel use.
- Following MRI confirmation of cervical epidural hematoma causing spinal cord compression (Figure 2), neurosurgery elected to bring patient emergently to the operating room for posterior cervical laminectomy for epidural hematoma evacuation.
- She was hospitalized for four days post-operation and discharged to subacute rehabilitation for further physical and occupational therapy.

Figure 1. Spine anatomy. The epidural, subdural, and subarachnoid spaces are defined by the dura, arachnoid, and pia maters. The epidural space contains fat, the internal venous plexus, connective tissue, and exiting nerve roots.

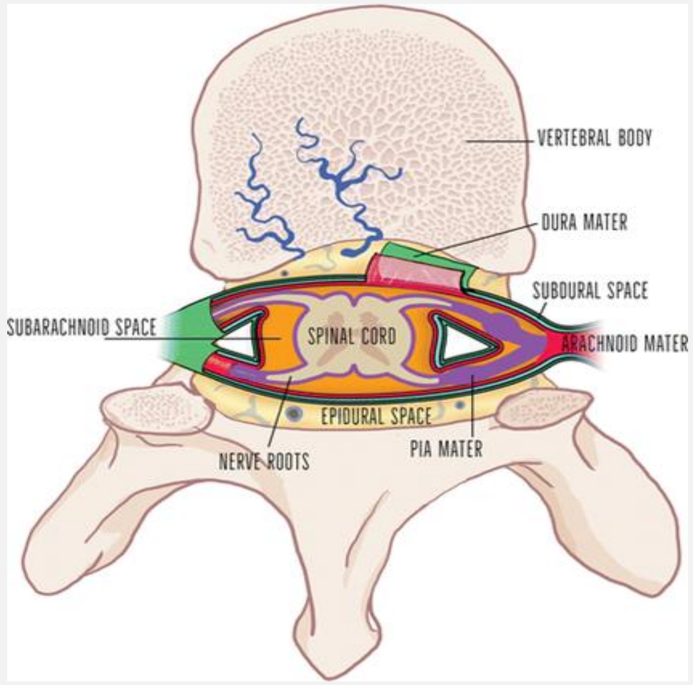
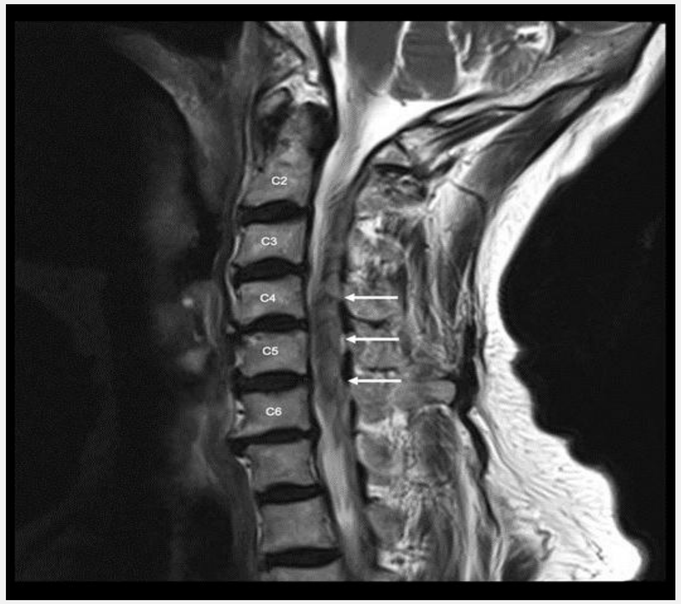


Figure 2. Sagittal magnetic resonance image of the cervical spine (T2-weighted). The image shows an acute epidural hematoma (arrows) spanning the C2–C3 space to the C6 vertebra



CONCLUSIONS

- This case represents an unusual presentation with patient mimicking stroke-like symptoms of acute onset, found to have spontaneous cervical epidural hematoma.
- Although there are components of patient's history and physical exam such as her bilateral significant deficits and severe neck pain which hints at the correct diagnosis, these could have easily been attributed to an ischemic insult and patient may have been given thrombolytics to disastrous affect.
- While incidence remains low, given the concern for possible significant morbidity and mortality without problem diagnosis and intervention, spontaneous epidural hematoma should be considered in the workup of patients with acute onset of significant peripheral neurologic deficits.