

Back Pain: Could it Be Something More?

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Chief Complaint

"Back Pain"

HPI

A 57-year-old male with no pmhx presents to the ED with a fall from a horse. Patient reports he was bucked off from his horse into a tree. He complains of left back pain and some left wrist pain however denies losing consciousness, chest pain, midline neck pain, use of blood thinners or pain elsewhere. The patient reports excruciating pain and already received 150 mg of fentanyl and 4 mg of Zofran for nausea earlier, administered by the medics.

Pertinent Physical Exam

Vitals: 124/88, 87, 18, 97%

Constitutional: Ill appearing, in acute distress.

Cardiovascular: Normal rate and regular rhythm.

Pulmonary: Effort is normal. Normal breath sounds, no wheezing, rhonchi or rales.

Musculoskeletal: Left scapular tenderness present on palpation. Left mid thoracic back pain extending along the lateral rib edges with swelling.

Imaging

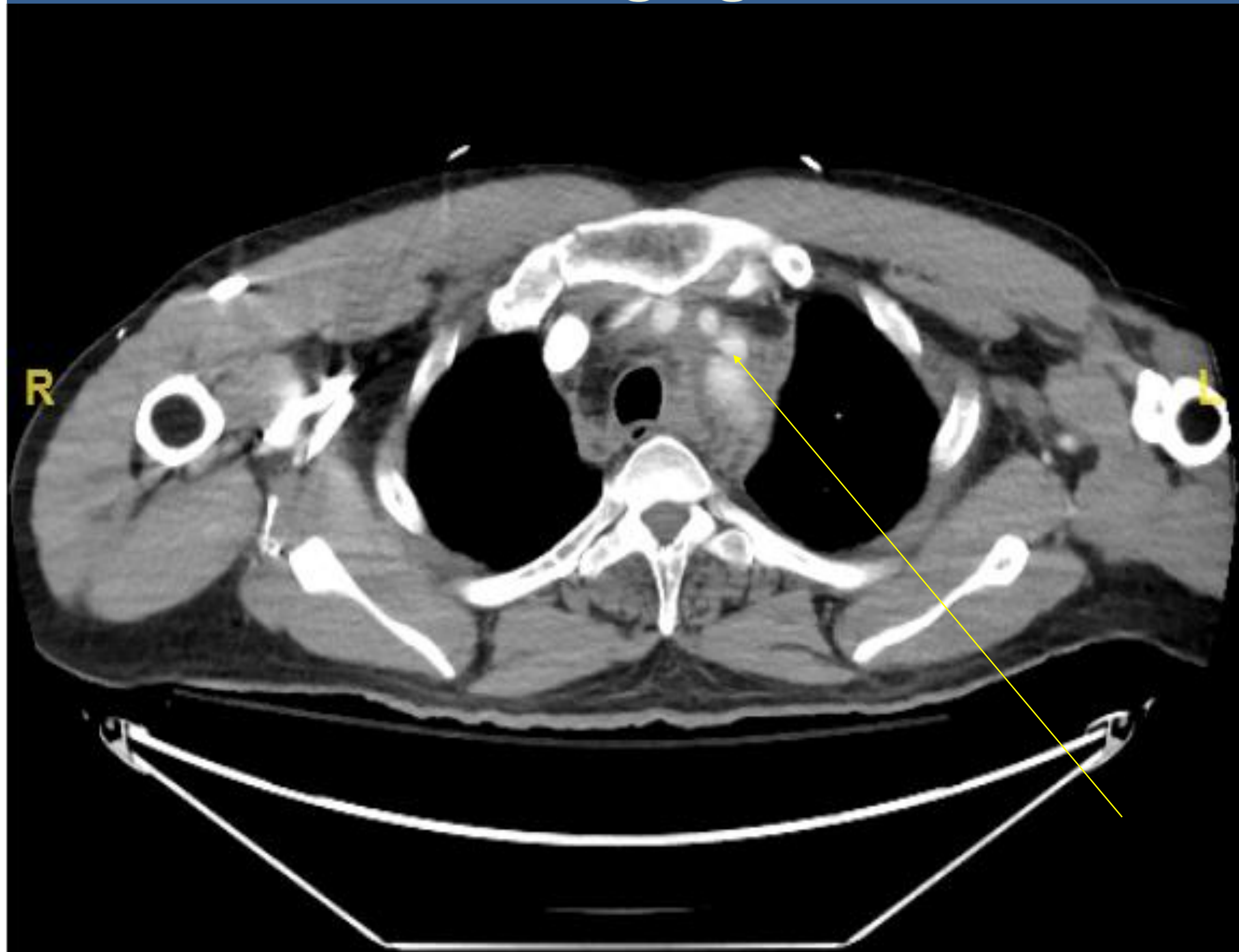


Figure 1. CT chest with IV contrast axial view

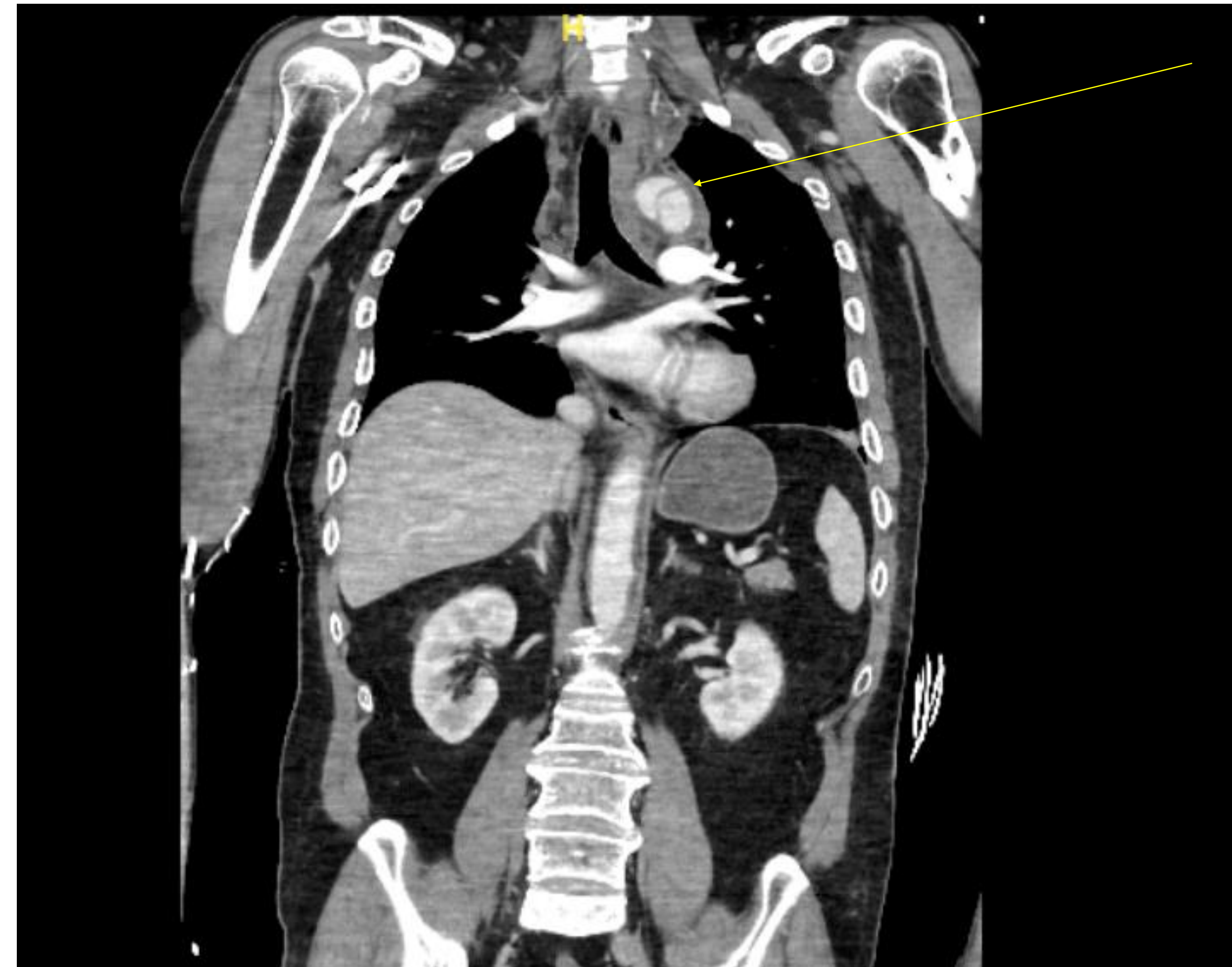


Figure 2. CT chest with IV contrast coronal view



Figure 3. CT angiogram of the chest with IV contrast

Discussion

This is a 57-year-old male who had no pertinent past medical history who presented as a traumatic fall from a horse but with initially stable vital signs. Given the mechanism of the injury and significant pain, patient was immediately seen at bedside where a bedside FAST ultrasound was performed which was negative for any intraabdominal free fluid or hemopericardium. The patient was in significant pain despite his normal vital signs requiring multiple doses of narcotics while in the ER starting with 150 mcg of fentanyl, followed by a total of 8 grams of morphine, and 1 gram of dilaudid. A CT abdomen pelvis and CT chest with contrast were ordered which revealed the pseudoaneurysm with associated non-displaced rib fractures. Trauma surgery was consulted initially. Once the traumatic pseudoaneurysm was noted from the CT imaging, the patient was stabilized with esmolol and clevidipine drips and subsequently went for a CT angiogram of the chest and neck where the pseudoaneurysm and dissection at the level of the left carotid and subclavian artery was confirmed. Once the area of injury was localized, patient underwent endovascular repair with cardiothoracic and vascular surgery.

Pearls

-Recognizing traumatic emergencies even in the setting of initially stable vital signs is a necessary skill for the emergency medicine physician. Obtaining a thorough history and physical exam will help determine the ED treatment and disposition of the patient.

-A pseudoaneurysm, also known as a false aneurysm, is often caused by damage to the arterial wall, generally occurring in weak or damaged areas of arteries or may spontaneously occur as a result of traumatic injury to an artery. While most pseudoaneurysms are generally detected on contrast enhanced CT imaging, smaller lesions or confirming the exact site of the pseudoaneurysm warrants further imaging such as angiography and requires prompt surgical consultation.

-Vascular injuries associated with blunt trauma generally are catastrophic. While subclavian artery lesions are rare and represent approximately 5% of all vascular lesions, they carry an approximate mortality rate of 60% and often require endovascular repair. Knowing key physical exam findings and using a systematic approach with the history and physical exam will help you guide treatment and disposition.

Contact

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References

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