

"Motor Scooter Syndrome" Revisited. A Case of Delayed Presentation of Traumatic Occlusion of the Common Femoral Artery.

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INTRODUCTION

- Blunt trauma causing injury to the common femoral artery (CFA) is rare and typically associated with fractures
- Although well documented, CFA injury can infrequently be caused by motorcycle or bicycle handlebar trauma
- This case report presents a delayed diagnosis of CFA occlusion leading to acute renal failure and rhabdomyolysis

PATIENT PRESENTATION

History of Present Illness

- A 43-year-old male presented to the Emergency Department (ED) as a Level 2 trauma with the chief complaint of right-sided groin and shoulder pain following a motorcycle accident
- Unconscious at the scene but alert on arrival
- He denied headaches, neck pain, back pain, chest pain, difficulty breathing, or abdominal pain

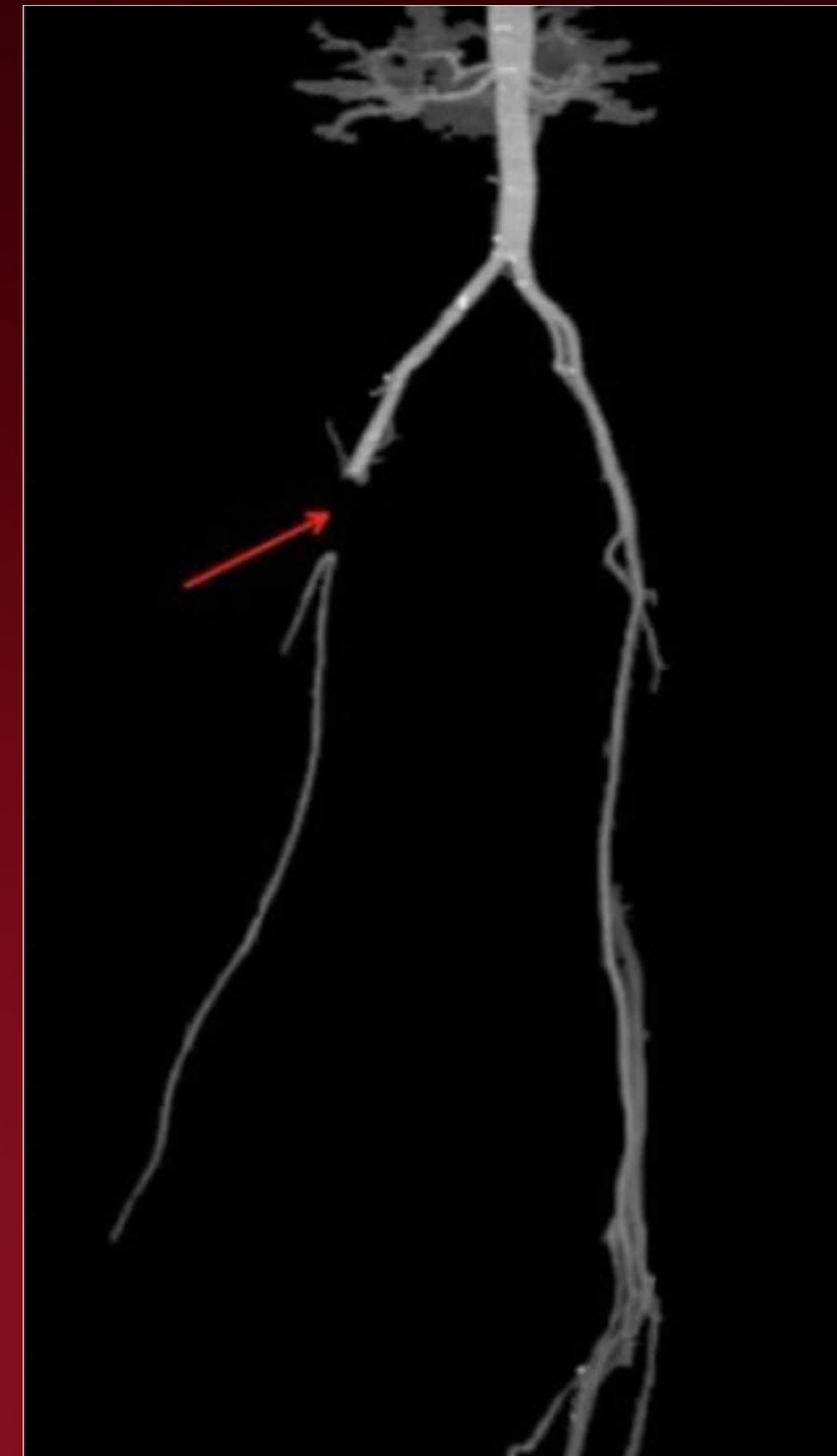
Physical Exam

- Uncomfortable but alert
- Vital signs: temperature of 36.4°C, heart rate of 94, blood pressure of 163/94, respiratory rate of 18, and O₂ saturation of 97%
- Dorsalis pedis and posterior tibial pulses were 2+/4 bilaterally
- The patient had abrasions to the right anterior lower chest wall, the knees, the chin, and the right parietal scalp
- Significant ecchymoses to the right shoulder and right groin

Initial Radiology findings

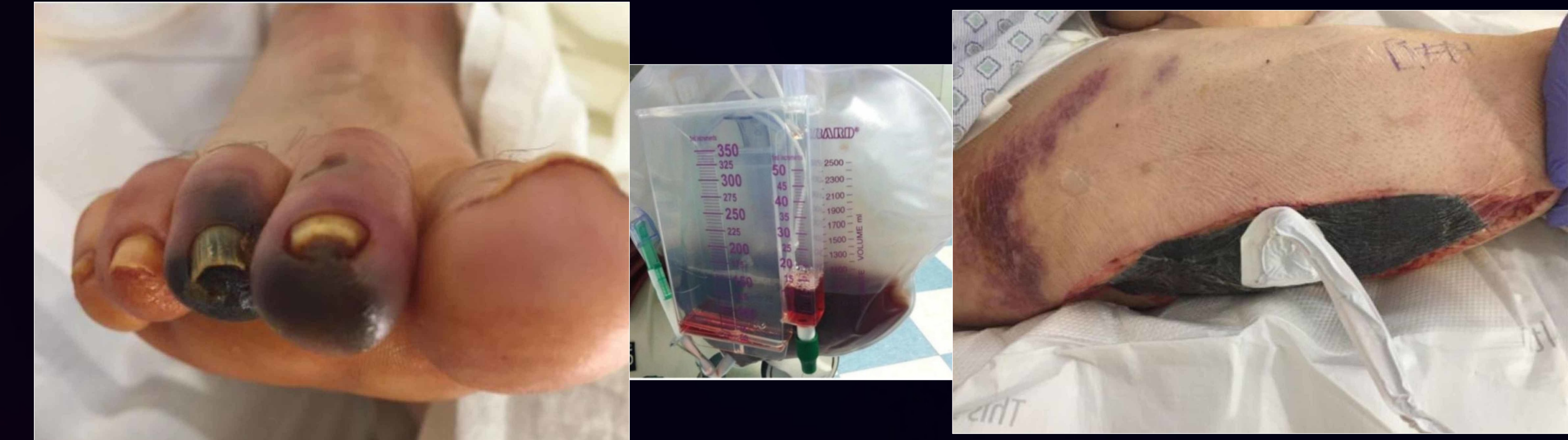
- CT showed a distal left vertebral artery dissection without severe stenosis and a non-displaced posterior right 1st rib fracture

IMAGING



DISCUSSION

- The femoral sheath surrounding the CFA makes it relatively immobile and, therefore, susceptible to compression against the underlying structures
- Motor-scooter syndrome multiplies and concentrates the impact force over a relatively narrow area allowing for high-grade vascular injury
- Suspicion of CFA injury should be maintained even if vascular damage does not manifest initially
- If any red flag symptoms arise (ex. bruits, pulse deficits, expanding hematomas), color doppler ultrasound, arteriography, and CT angiography should be utilized to confirm diagnosis



HOSPITAL/SURGICAL COURSE

- Admitted to the step-down unit from the ED
- The following morning, he went into respiratory distress and required intubation
- Cardiology was consulted for a troponin elevation (0.11 ng/mL). Creatinine phosphokinase (CK) was 19,270
- Tea-colored urine was observed, and a diagnosis of rhabdomyolysis was made
- That night, nursing noticed the right foot to be cold and pulseless with rigor of the right calf
- Doppler ultrasound showed a right CFA occlusion with limited blood flow.
- CTA confirmed 5 cm occlusion with reconstitution within the superficial femoral artery

Right CFA Bypass

- A semi oblique incision was made along the right groin, and the right common femoral artery was dissected out
- No pulse was found. However, the external iliac was found to have a strong pulse. A hematoma that had thrombosed was found in the entire wall of the femoral artery
- The tunica media and tunica intima were disrupted
- An 8 mm Dacron interposition graft was used to revascularize
- The first day post-op, his right pedal pulse was again absent, and he developed a tense right thigh leading to thigh fasciotomies and ischemic changes to the foot
- He was continued on aggressive fluid resuscitation and supportive intensive care unit (ICU) management and later stabilized and discharged



References

