

VIDEOS IN EMERGENCY MEDICINE

Ultrasound

65-year-old female presenting with left thigh pain and episode of syncope

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KEYWORDS

Doppler femoral, extravasation, hematoma, trauma, ultrasound

1 | PATIENT PRESENTATION

A 65-year-old female presented to the emergency department complaining of 1 episode of syncope. She was pushing her son around on a furniture dolly when she caught his weight with her left thigh. She experienced immediate pain, but did not present at that time because she was ambulatory. Her pain had been getting worse, and she began to have lightheadedness with one episode of syncope. The patient's blood pressure at presentation was 110/61. Her examination showed bruising to the anterior left thigh with distal pulses intact and her blood pressure dropped to 74/51.

Point-of-care (POC) ultrasound showed an echogenicity, raising suspicion for an expanding hematoma. Power Doppler confirmed sonographic evidence of pulsatile flow (Figure 1, Video 1).

2 | DIAGNOSIS: LEFT FEMORAL ARTERY LACERATION -

A computed tomography scan showed a hematoma of the left thigh with active extravasation, confirming sonographic suspicion. The patient underwent embolization to branches of the left deep and superficial femoral arteries. A review of the literature demonstrated a known correlation between blunt trauma and femoral arterial injury¹ and that isolated femoral artery transection is rare.² The majority of reports involve pseudoaneurysms, occlusive thrombosis, compartment syndrome, and arterial dissection as the main complications for blunt

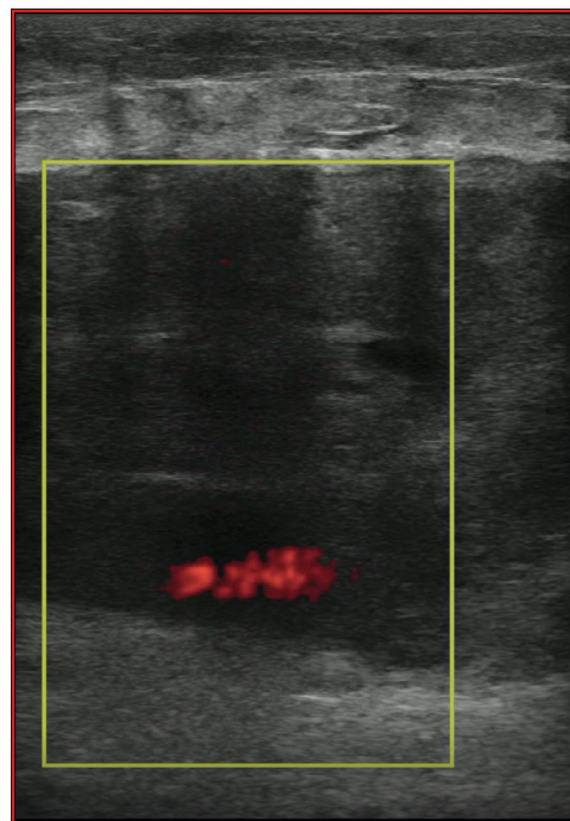
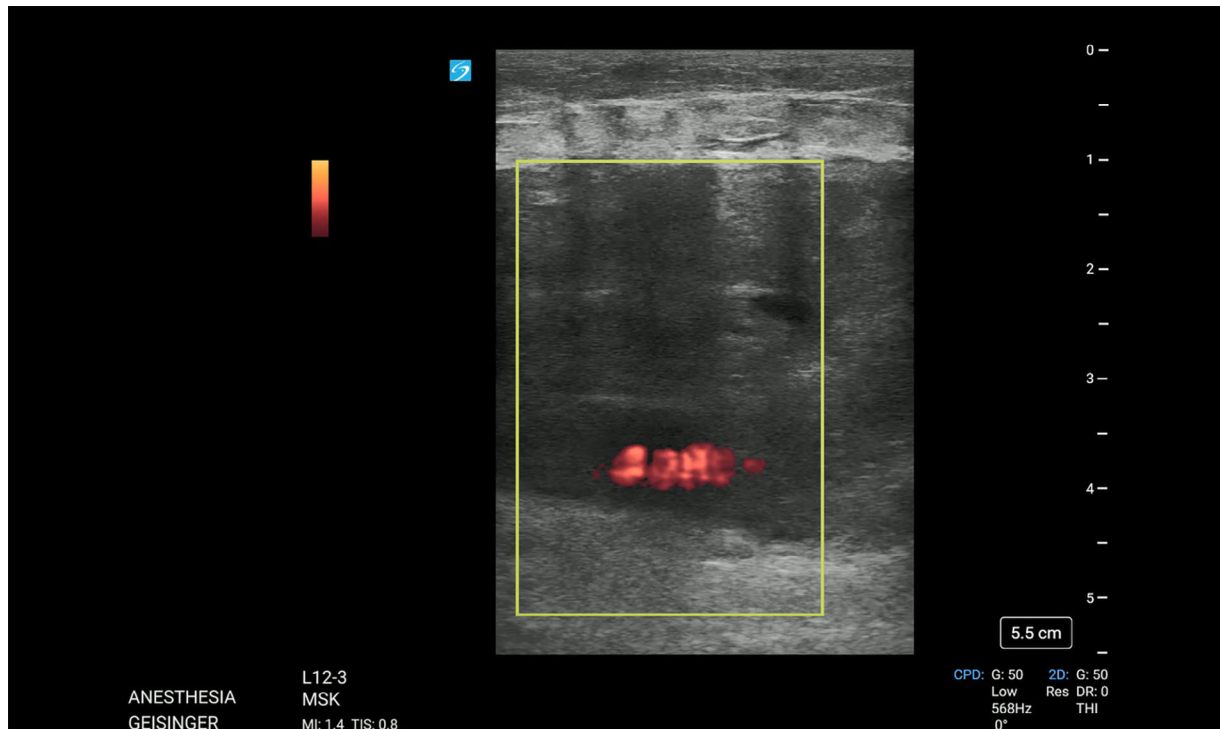


FIGURE 1 Left thigh echogenicity with power Doppler signal suggesting active extravasation.

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VIDEO 1 Sonographic evidence of active arterial extravasation with large left anterior thigh echogenicity and pulsatile power Doppler signal.

femoral arterial injury. The use of POC ultrasound was vital in differentiating this patient's hypotension and syncope between hemorrhagic shock from suspected arterial injury and other causes of syncope. Therefore, POC ultrasound had a significant impact in both reducing time to diagnosis and receiving definitive treatment.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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