



Imaging Sciences Interesting Cases

CASE 319

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CLINICAL PRESENTATION: Patient is a 46-year-old male with trauma to the penis.

IMAGING FINDINGS: Ultrasound demonstrates a defect through the tunical albuginea along the ventral lateral aspect of the right corpus cavernosum near the base of the penis. There is a well defined hematoma along this defect with no active flow visualized in the collection. There is diffuse soft tissue swelling around the penis.

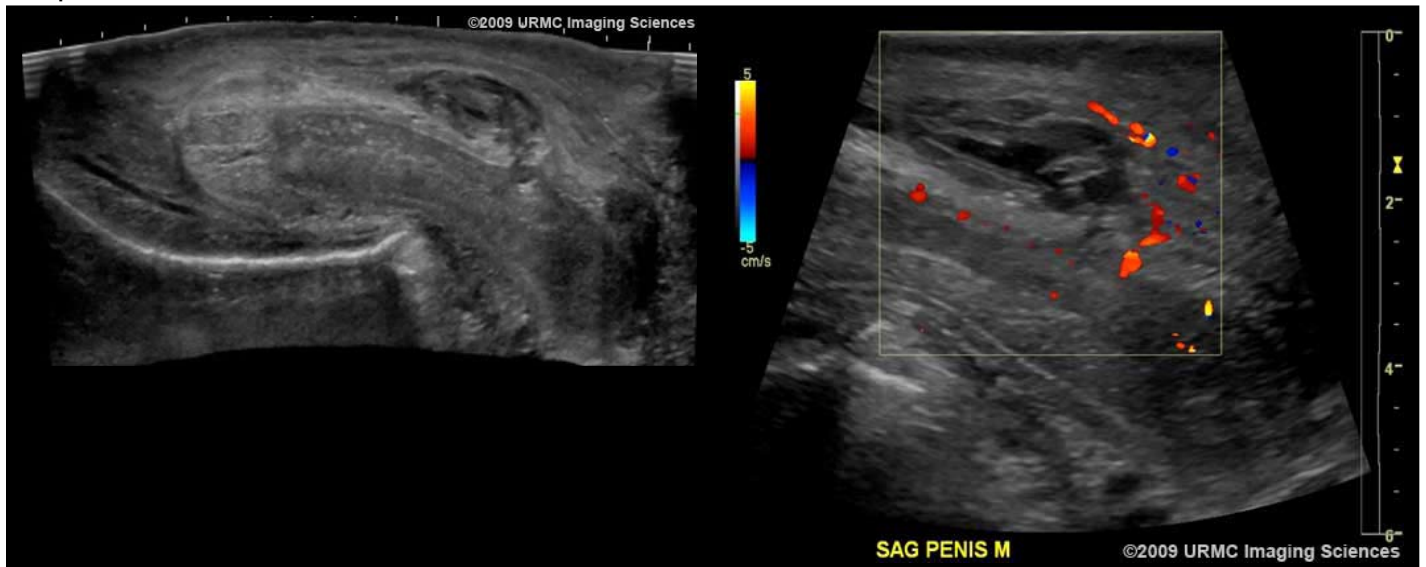


FIGURE 1: Sagittal grayscale sonogram of the penis demonstrates a defect along the ventral aspect of the right corpus cavernosum with an adjacent hematoma.

Figure 2: Magnified color flow Doppler sonogram of the defect demonstrates no demonstrable active flow into the hematoma.

DIAGNOSIS: Penile fracture

DISCUSSION: Penile fracture is the traumatic rupture of the corpus cavernosum. Traumatic rupture of the penis is relatively uncommon and is considered a urologic emergency. The frequency of penile fracture is likely under reported and usually due to trauma during sexual intercourse. Sudden blunt trauma or abrupt lateral bending of the penis in an erect state can break the markedly thinned and stiff tunica albuginea, resulting in a fractured penis. One or both corpora may be involved, and concomitant injury to the penile urethra may occur. Urethral trauma is more common when both corpora cavernosa are injured. The primary goals of surgical repair are to expedite the relief of painful symptoms, to prevent erectile dysfunction, to allow normal voiding, and to minimize potential complications due to delay in diagnosis. Imaging studies to assess penile trauma are not usually required, usually the physical examination findings alone are enough to establish the diagnosis. Retrograde urethrogram should be utilized if urethral injury is sus-

pected on the presence of blood at the meatus, hematuria, dysuria or urinary retention. Ultrasound, MRI and penile cavernosography can provide direct visualization of the injury if indicated.

REFERENCES:

1. Bhatt S, Kacokoc E, Rubens DJ, Seftel AD, Dogra VS. Sonographic evaluation of penile trauma. J Ultrasound Med. 2005 Jul;24(7):993-1000; quiz 1001. PMID: 15972714 [PubMed]