

You are evaluating a 15 year old male who presents to the ED with complaint of severe scrotal pain. He is sexually active and reports using condoms occasionally. He was awakened by the pain about 6 hours ago. He mentions that the pain radiates to lower abdomen and is so severe that he vomited twice on his way to the emergency room. He currently complains of nausea and he vomits as you begin to examine him. On exam you notice an edematous scrotum. The left testis is markedly tender and swollen. The left testis appears elevated compared to the right. Both testes do not appear to elevate when you stroke the upper inner thigh, however the patient reports some pain relief when you elevate the left testis (Prehn sign).

Which of the following is the most appropriate next step in management for the patient described above?

A: Immediately obtain a color Doppler ultrasound of the scrotum

B: Immediately obtain a radionuclide scan of the scrotum

C: Perform manual detorsion of the torsed testicle, and if there is immediate pain resolution, observe the patient for 24 hours before discharge

D: Consult the urologist for emergent surgical exploration and orchiopexy of both testes

E: Obtain urinalysis, urine culture, and test the patient for GC/Chlamydia

Correct response D: The patient has a clinical presentation highly suspicious for testicular torsion. Patients with testicular torsion typically present with acute onset severe testicular or scrotal pain, usually less than 12 hours in duration. Nausea and vomiting is present in nearly 90% of patients with testicular torsion. On physical exam the scrotum may appear edematous and erythematous. The affected testis is markedly tender and swollen, and is slightly elevated because of twisting of the spermatic cord. Absent cremasteric reflex can be seen in nearly all cases of testicular torsion. However, a present or equivocal reflex does not rule out torsion. Testicular torsion, if not responded to immediately may result on loss of the affected testis. The diagnosis of testicular torsion whether clinically or radiographically made, requires consultation with an urologist. Treatment involves surgical detorsion and fixation (orchiopexy) of both testes to prevent recurrence.

Responses A and B are incorrect because the patient has a clinical presentation highly suspicious for torsion, and further radiographic studies may merely delay treatment and decrease the chances of maintaining viability of the affected testis.

Response C is incorrect because although an experienced physician may succeed in manual detorsion, it is inappropriate to discharge the patient home after resolution of pain without consulting with urology for exploration and fixation to prevent recurrence.

Response E is incorrect because although the patient reports being sexually active, again, the clinical picture is most consistent with torsion and not epididymitis. Patients with epididymitis may present with acute or subacute onset of scrotal pain and swelling isolated to the epididymis. They often have a history of urinary frequency, dysuria, urethral discharge, and/or fever. Although patients with epididymitis may have a positive Prehn sign, as in our patient, it is not a reliable marker for epididymitis.

A 7 year old uncircumcised male presents to the ED with severe testicular pain. The pain began suddenly last night while he was sleeping. His mother gave him three doses of Motrin overnight and applied ice pack without significant resolution of the pain. This morning, he continued to complain of severe testicular and abdominal pain. According to the patient's mother, the patient has a history of recurrent constipation and urinary tract infections. Three weeks ago he was taken to the ED because he was complaining of penile pain and painful urination. His mother mentions he was diagnosed with a UTI. After you examine the patient, you suspect he has testicular torsion, and you explain to the mother that he will require surgical treatment. The mother asks if his son is will need to have his testis removed. Which of the following is the most appropriate response to the mother?

A: “Don’t worry, children with testicular torsion, rarely need to have their testis removed surgically”

B: “Since you waited so long before bringing him to the ER, he probably has lost blood flow to the testis, and he will most likely need to have it removed.”

C: “Whether or not the affected testis is removed depends on how long it has been twisted and by how much. The surgeon will see if the affected testis can be saved and will decide whether or not it needs to be removed”

D: “Whether or not the affected testis is removed depends on whether the torsion has occurred before. It appears he may have had this problem before. He appears to have had this in the past. Therefore, there is a higher chance he may have the affected testis removed”

E: “I don’t know; let’s see what the surgeon says”

Correct answer C: The viability of a torsed testicle depends on the duration and the degree of torsion.

The reported rates of viability according to duration of torsion are as follows:

Detorsion within 4 to 6 hours ---100% viability

Detorsion after 12 hours—20% viability

Detorsion after 24 hours—0% viability

Responses A, B, D and E are incorrect and/or inappropriate.

References:

Brenner, JS and Aderonke Ojo. Causes of scrotal pain in children and adolescents. www.uptodate.com March, 2012

[Beni-Israel T](#), [Goldman M](#), [Bar Chaim S](#), [Kozer E](#). Clinical predictors for testicular torsion as seen in the pediatric ED. [Am J Emerg Med](#). 2010 Sep;28(7):786-9. Epub 2010 Feb 25.