

Testicular Ischemia in patient with Acute Epididymitis: A Rare Complication for a Common Disorder

Abstract :

The acute scrotum can provide many diagnostic challenges to the Emergency Room Physician, Radiologist and Urologist. Testicular Infarctions have been reported rarely as a catastrophic complication to epididymo-orchitis. Repeated color Doppler ultrasound examination of the testes should be performed, and a urology referral should be considered for possible admission and surgical exploration.

I. Introduction :

The acute scrotum can provide many diagnostic challenges to the Emergency Room Physician, Radiologist and Urologist. One of the commonest differentials for the acute scrotum is an epididymo-orchitis, which can mimic the presentation of testicular torsion. Medical management is the mainstay therapy that includes antimicrobial treatment. Testicular Infarctions have been reported rarely as a catastrophic complication to epididymo-orchitis. Few case reports and case series have been written highlighting acute testicular infarcts progressing from routine epididymal and testicular infections. This case report study elucidated a case of acute scrotum in a 17 years old man.

II. Case report :

A 17 years old young man presented to the emergency department with left scrotal pain and swelling for 3 days. His pain was intermittent and radiating to his left inguinal area. There was no prior history of testicular torsion, testicular trauma, and unprotected sexual intercourse. On presentation, the scrotum was red in appearance (Figure 1). Testicular examination revealed left testis edema with severe tenderness to palpation. Prehn's was undecisive from the examination and the cremaster reflex was minimal. A Doppler ultrasound

was done which revealed no evidence of testicular torsion, enlarged left epididymis with heterogeneous echopattern and increased vascularity suggesting epididymitis, the ultrasound also revealed heterogeneous hypoechoic zone, without Doppler flow in the lower pole of the testis (Figure 2).



Figure 1 : Scrotum

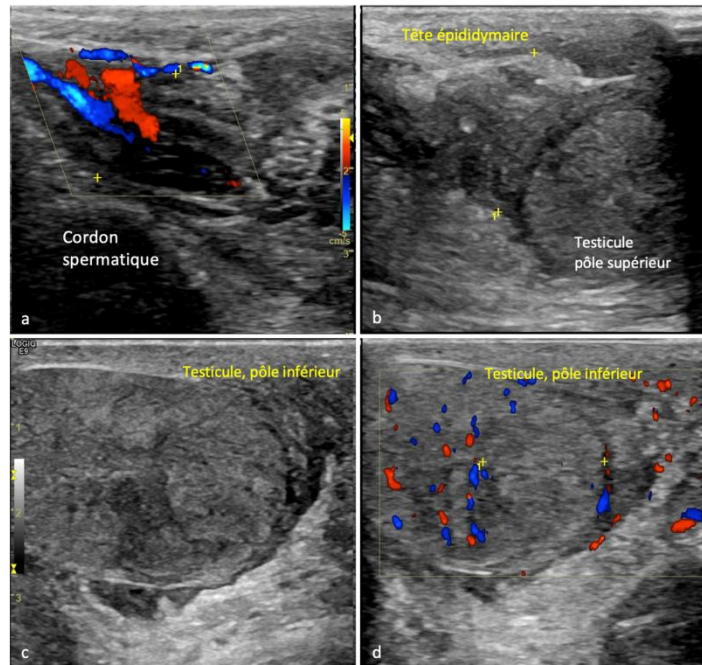


Figure 2 : Doppler Ultrasound

We decided to perform left scrotal exploration, which showed an inflammatory aspect and enlargement of the left epididymis without spermatic cord twist and a necrotic lower pole of the testis (Figure 3). A partial left orchidectomy and spermatic cord fasciotomy was performed (Figure 4). The surgery was successful without any complications. The patient was fully recovered with an excellent general condition improvement. The patient was discharged the following day after the surgery with prescription of antibiotics. The control ultrasound was normal.



Figure 3 : Intraoperative photograph of scrotal exploration



Figure 4 : Partial Orchidectomy

III. Discussion :

Epididymitis leading to testicular infarction is extremely rare. The testicular ischemic process can be segmental or diffuse, depending on the degree of vascular occlusion (1). The pathogenesis of a testicular infarct due to epididymo-orchitis is poorly understood. Venous obstruction due to edema, bacterial toxin causing endothelial damage, inflammation of spermatic cord and thrombus formation are several pathogenesis of the testicular ischemia (1,2).

Strong evidence to support clinical features, which may predict a worse outcome, is limited. Features suggesting a lack of response to antibiotics include sepsis, pronounced scrotal edema, severe testicular pain and scrotal wall inflammation (3). A positive urine culture has been cited as being a factor leading to increase complications such as testicular infarction (4).

Antibiotic therapy in epididymo-orchitis is usually with a combination of a third generation cephalosporin and a doxycycline to cover *Chlamydia Trachomatis*, or a quinolone. Further theoretical management options include anticoagulation, antiplatelet or thrombolytic drugs. Spermatic cord fasciotomy in an attempt to salvage the testicle is also a consideration. Testicular fasciotomy may seem an excessive option to an orchidectomy

IV. Conclusion :

Although rare, testicular infarction should be considered as a complication in patients with severe or unresolved epididymitis. Repeated color Doppler ultrasound examination of the testes should be performed, and a urology referral should be considered for possible admission and surgical exploration.

References:

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