An Unusual Cause of Scrotal Pain in a 77 Year Old: Testicular Torsion!

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Abstract
We present the case of a 77 year old man who presented with acute onset of left scrotal pain and swelling, interpreted as epididymo-orchitis, and treated twice, within four days with different antibiotics. On the third presentation an urgent Doppler ultrasound scan confirmed absent testicular blood flow on the affected side. Emergency scrotal exploration revealed a torted left spermatic cord, and a non-viable testicle requiring orchidectomy, and contralateral testicular fixation.

INTRODUCTION
Testicular torsion is a rare cause of the acute scrotum in the geriatric population. It is associated with lower testicular salvage rates. It is not uncommon to misdiagnose testicular torsion for acute epididymo-orchitis/epididymitis in this age group [1-3].

Testicular torsion is the transient or permanent interruption of blood supply to the testes following vertical axial rotation of the spermatic cord. It is well recognized in children, with an incidence of 3.8/100,000 annually and representing 10-15% of all acute scrotal pathology [4]. The condition is well characterized in this age group, with a variety of anatomical abnormalities having a strong association with testicular torsion [5].

This case provides an example of unilateral testicular pain and swelling in an elderly patient with no history of trauma and no significant past urological history. It highlights the importance of maintaining a high index of suspicion in any patient with unilateral acute scrotum.

CASE PRESENTATION
A 77 year old male presented to his General Practitioner (GP) with one day’s history of mild pain and swelling in his left hemiscrotum that had started insidiously with no obvious trauma. He was diagnosed with epididymitis and started on a course of oral flucloxacillin. The patient returned to the GP three days later with increased swelling and pain and was referred to the Emergency Department (ED). Examination showed a large left hemiscrotum which was erythematous and tender to palpation. Urine examination and blood tests were unremarkable.

Epididymo-orchitis was assumed, and oral antibiotics were changed to ciprofloxacin.

The patient re-presented to ED four days later with further swelling, but with resolving pain. He was referred to the urology team who organized an urgent Doppler ultrasound scan of the testes which confirmed absent blood flow to the affected side and a clear peri-testicular fluid collection. The patient was taken to theatre for emergency exploration which revealed a torted spermatic cord with a non-viable left testicle (Figure 1, 2). Left orchidectomy and contralateral orchidopexy with three point fixation was performed. Histopathological examination revealed a congested, haemorrhagic and gangrenous testicle with no viable parenchyma.
DISCUSSION

Prompt clinical suspicion and time to surgery in testicular torsion is crucial. In complete torsion (>360° axial rotation), severe testicular gangrene can occur within 4 hours [7]. This case illustrates how diagnostic uncertainty, due to the relative infrequency of the condition in this age group, causes a delay in treatment that leads to irreversible tissue damage.

In the adult, testicular torsion is an infrequent cause of the acute scrotum, where infectious diseases, and sometimes neoplasms, are underlying the majority of these presentations. It is consequently associated with misdiagnosis and delayed treatment, resulting in high orchiectomy rates [1-3,6].

In this case, the patient was misdiagnosed with epididymitis on two occasions.

This is the most common cause of testicular pain in this patient’s age group and can be difficult to distinguish from torsion both clinically and biochemically [3,8,9].

Clinical findings such as Prehn’s sign and absent cremasteric reflex lack specificity and cannot be used to distinguish between the conditions. Apyrexia, lack of raised inflammatory markers (white cell count, neutrophils, C- reactive protein, etc.) and negative urinalysis (absence of nitrites and leucocytes) are not uncommon in epididymitis, and their presence does not exclude torsion. Ultrasonography, both grey scale and Doppler, offers fast and accurate evaluation of the testicular blood flow, with high sensitivity and specificity [10,11] however these modalities rely on the presence of a trained operator. Dynamic contrast-enhanced subtraction MRI and scintigraphy are similarly accurate, but lack the swiftness of an ultrasound scan [12].

Whilst torsion at this age is seldom reported, the simplicity and effectiveness of ultrasonographic evaluation of the testes in conjunction with the potential severity of the underlying pathology should reinforce the surgeon’s mantra that all patients with unilateral scrotal pain and/or swelling should have a diagnosis of torsion excluded. Nevertheless, in early presentation, it may be difficult to exclude testicular torsion, even with ultrasound scanning, and in such a situation, scrotal exploration is the prudent option, rather than arranging for any other modalities of investigation causing unnecessary delay.

REFERENCES

7. Murphy FL, Fletcher L, Pease P. Early scrotal exploration in all cases is the investigation and intervention of choice in the acute paediatric scrotum. Pediatr Surg Int. 2006; 22: 413-416.