

## Post-Infectious Ischemic Orchitis, Rare Entity: A Case Report

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### **ABSTRACT**

The ischemic orchitis is a rare entity, which can complicate an acute orchiepididymitis in the absence of early and adequate management, its physiopathology is well known. We report a clinical case of post-orchiepididymitic ischemic orchitis occurring in a 24-year-old boy who presented a large, painful right bursa with infectious syndrome. In spite of a well-conducted treatment of orchiepididymite there was persistence of pain. The scrotal ultrasound coupled with color Doppler had revealed a swollen right testicle, with a hypo-echoic, heterogeneous, hypo-echoic, non-vascularized, and medium-abundant hydrocele. A right scrototomy had been performed, and noted an ischemia of the testis with purulent contents, then an orchiectomy was performed. At D2 of the post-operative period, the patient was discharged with favorable evolution.

### **KEYWORDS**

Scrotal pain; Orchitis; Ischemia; Ultrasound scan.

### **INTRODUCTION**

Acute scrotum can present many diagnostic challenges for the emergency practitioners, radiologists, and urologists. To compound the diagnostic dilemma, conditions such as testicular torsion are time sensitive and their clinical outcome depends on the time of diagnosis and any delay in their diagnosis can lead a potentially catastrophic outcome for the patient. One of the most common differential diagnosis for an acute scrotum is epididymo-orchitis, which can mimic the presentation of testicular torsion. This infectious pathology is often managed on an outpatient basis with good results; rarely requiring surgery.

Testicular infections are usually treated with an oral or parenteral antibiotics, with little or no morbidity, it should be kept in mind that a progression to other complications can occur, leading to greater morbidities and testicular loss. Few case reports and case series have been written highlighting acute testicular infarctions progressing from routine epididymal and testicular infections [1,2]. We are reporting a clinical case of post-orchiepididymitis ischemic orchitis.

### **MEDICAL OBSERVATION**

It's about a 24-year-old young man, Single, without profession, who was admitted for a large painful right testicle associated fever.

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He has no any known past medical history. He has been exhibiting a stabbing testicular pain for a duration of two weeks that was associated with burning micturation, pyuria and episodes of febrile sensations and then the condition has rapidly progressed to a right scrotal swelling.

The clinical examination showed : A good general state, with a body temperature at 38.5°C, a scrotal examination showed a large shiny, red, swollen and painful right testicle with positive Prehn's sign and preserved right cremasteric reflex.

A scrotal ultrasound with color Doppler revealed a non-vascularized swollen right testicle with heterogeneous and hypochoic areas and a hydrocele of moderate abundance (Figure 1).

A right scrototomy was performed and n showed an ischemic testicle with purulent content (Figure 2), after which an orchiectomy was decided. She was put on antibiotic therapy (Ciprofloxacin 500 mgx<sup>2</sup>/D) for 15 days. According to the cytobacteriological studies of urine that have isolated a gram negative germ (*E. Coli*). The patient was discharged on the second day with a good clinical progress.



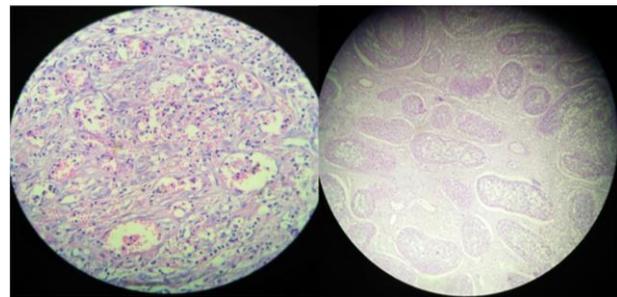
**Figure 1:** Echographic images of the right testis, with hydrocele and hypochoic blade, heterogeneous with hypochoic areas, non-vascularized.

The histology of the operative specimen had revealed a vascular emboli with an aspect of testicular infarction.

Chlamydiae, gonococcal and syphilitic serologies were negative.



**Figure 2:** Intraoperative image of right testicle (with necrotic and purulent contents) with an swollen epididymis and spermatic cord.



**Figure 3:** Microscopic images of testicular infarction with vascular emboli A (x20) and B (x20).

## **DISCUSSION**

Testicular abscess formation and ischemia are rare complications of epididymo-orchitis under appropriate antibiotic therapy [3]. Although the exact mechanisms remain unknown, the proposed mechanisms suggest that compression of the vascular system of the epididymis and testis does indeed create compartment syndrome [4,5]. Acute inflammatory changes, exudates, and tissue edema can lead to extra luminal compression. Simultaneously, venous congestion with thrombosis and the resulting endothelial dysfunction increases the pressure and as well hypoxia.

Epididymo-orchitis complicated by abscess formation is associated with significant morbidities, mainly testicular infarction [3,4].

Ischemic orchitis is a rare complication of orchiepididymitis. Occasionally described in the literature, with variable frequency. Doppler ultrasound is the first-line examination [6,7]. It helps guide the diagnosis by noting avascular hypoechoic areas. Nevertheless, it is sometimes difficult to make the differential diagnosis with either a tumor, hemorrhage or neglected spermatic cord twist. MRI appears to be the examination of choice, however it is not available urgently [8].

Surgical exploration by scrototomy is indicated in all cases; if there is any doubt about a testicular tumor, it is recommended to do an inguinal exploration [9].

Optimal management involves prevention and the infection documented on urine examinations or on

infectious serologies should be treated in order to preserve the condition of the contralateral testicle, and also the sexual partner(s) in the case of sexually transmitted infection.

### **CONCLUSION**

Epididymitis is a benign infectious disease, which can be cured within a few days of conservative treatment. However, some cases may require surgery when symptoms persist despite a compliant treatment, such is the case of ischemic orchitis, the treatment of which is mostly a surgical exploration combined with antibiotic therapy depending on the results of the urinalysis. Or sexually transmitted infection serologies.

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