CASE REPORT

Bilateral testicular dislocation with pelvic ring fracture: A case report and literature review

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Introduction

Primary urinary tract lesions are not uncommon in association with pelvic-ring fracture, especially in case of vertical and horizontal instability on the Tile classification [1]. Consequences are non-negligible, and notably involve impaired urinary continence and/or erectile disorder [2–6]. Testicular luxation is a much rarer association, especially when bilateral: to the best of our knowledge, no previous cases have been reported. The present report has three points of interest: awareness of the existence of such associations, to enable recognition and avoidance of iatrogenic complications caused by an anterior surgical approach; and multidisciplinary management between orthopedic surgeons and urologists.

Case report

A 62-year-old man who had been in a high-energy motorcycle accident was admitted to intensive care in our center. Clinical assessment on admission found stable hemodynamics with a Glasgow score of 15, Gustilo 3B open left tibial mid-diaphyseal fracture, Gustilo 3A open left wrist fracture and spontaneously reduced right knee dislocation with

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Pelvic-ring fracture; Testicular luxation; Urinary tract injury

Summary We report a case of a bilateral testicular dislocation with B1-1 pelvic-ring fracture according to the modified Tile AO classification, in a patient of 62 years. The mechanism of injury was impaction on the tank of a motorcycle. Symphyseal plate fixation using a Pfannenstiel approach was associated to bilateral orchidopexy through scrotal approach. The posterior pelvic ring was stabilized by iliosacral screwing because the left sacroiliac joint was open. The outcome was favorable without disorders of gonadal function. Systematic testicular palpation and careful CT analysis of the genital organs enabled identification and effective management of these rare urinary tract lesions. © 2013 Elsevier Masson SAS. All rights reserved.

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involvement of the central pivot and peripheral ligamentary formations. Plain AP pelvic X-ray found Tile B1 pelvic-ring fracture [1] with fracture of the left ili-ischiopubic branch and right ilio-pubic branch and symphyseal disjunction of less than 2.5 cm (Fig. 1). Whole-body CT found hematoma in Retzius’ space (subperitoneal precystic) extending upward and backward of the abdominal rectus muscle with left pelvic contrast medium leakage. There was also left sacroiliac disjunction with anterior opening. Embolization of a hyperselective distal branch of the left pudendal artery was performed, with a check on right popliteal axis permeability. CT found an ectopic left testicle in the inguinoscrotal canal (Fig. 2).

Emergency surgery consisted in fitting an external fixator onto the left leg and covering the open fracture with a semisoleus flap and an external fixator on the left wrist.

The pelvic ring was fixed the following day, using a screwed plate with six 3.5-mm holes, positioned via an anterior Pfannenstiel approach [7–9]. After linea alba incision and retraction of the abdominal recti, the left testicle was discovered in an intrapelvic position. Dissection revealed the other testicle in an ectopic location in the inguinoscrotal canal (Fig. 3). The testicles and their tunica albuginea and vasa deferentia appeared intact. The pubic symphysis was reduced and fixed, followed by left iliosacral screwing to stabilize the sacroiliac joint (Fig. 4). The urologic surgeons then performed manual reduction of the testicles and bilateral orchidopexy via a scrotal approach.

Postoperative course was simple, without recurrence of testicular luxation. Sex hormone assay (total and bioavailable testosterone) was normal. There was no erectile dysfunction.

Discussion

The interest of the present case report lies in the description of an exceptional lesional association between bilateral testicular luxation and pelvic-ring fracture. Diagnosis relied on clinical examination, which should include testicular palpation, which may reveal an empty scrotum, to be completed by whole-body CT, now indispensable in pelvic ring lesions, to refine diagnosis [10].

Intrapelvic testicular luxation is frequently associated with pelvic fractures. Surgeons should be aware of the risk of testicular injury in patients with pelvic fractures, and should consider the possibility of testicular injury in the differential diagnosis of pelvic trauma.

In pelvic ring lesions, clinical examination should include testicular palpation. Diagnostic confirmation can be obtained using imaging techniques such as CT or MRI. Management of testicular injuries depends on the severity of the injury. Minor injuries may be managed conservatively, while more severe injuries may require surgical intervention.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.

References