



Izolovane povrede mokraćne cevi

Isolated Injuries of the Urethra

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Apstrakt

Uvod: Ispitali smo učestalost povreda mokraćne cevi (urethra) koje nastaju kao posledica frakture karlice i koje su, najčešće, povezane sa nestabilnim prelomima karlice.

Materijal i metode: U ovoj retrospektivnoj studijanalizom je obuhvaćeno 40 pacijenata lečenih na Urološkoj klinici u Nišu i Urološkom odeljenju u Prokuplju kod kojih je, kliničkim pregledom i dijagnostičkim pretragama, postavljena dijagnoza povreda mokraćne cevi usled preloma karlice. Njihova prosečna starost je 41 godina. Kod svih pacijenata je urađena uretrografija (retrogradna ili anterogradna) koja je zlatni standard za dijagnozu traume mokraćne cevi. Kod svih je urađena i kompjuterizovana tomografija (CT), dok je magnetna rezonanca (MRI) urađena kod 24 pacijenta.

Rezultati: Prelomi karlice koji rezultiraju povredama mokraćne cevopovrede suvelikog intenziteta, sa stopom mortaliteta 5–33%. Povrede mokraćne cevi javljaju se kod 1,6% do 25% preloma karlice. Povrede mokraćne cevi najčešće se dešavaju kod preloma sve 4 stidne grane sa oštećenjem sakro-ilijskog zgloba ili bez oštećenja, kod preloma donje pubične grane, sa razmicanjem pubične simfize i Malgagnievim prelomima (dislokacije preloma duplog karličnog prstena). Kombinovane povrede mokraćne cevi i bešike javljaju se kod 1%–33% pacijenata. Početni medicinski pristup treba da se koncentriše na reanimaciju i stabilizaciju pacijenta, a zatim na identifikaciju svih povezanih povreda.

Zaključak: Kod svih povreda mokraćne cevi usled preloma karlice, uvek su povređeni i drugi organi i zato povreda uretre nikada nije u prvom planu. Ranije teorije o mehanizmu povređivanja uretre smatraju da povređivanja nastaju kroz delovanje horizontalne sile na membranoznu uretru i na mestu gde je fiksirana urogenitalna dijafragma. Danas se smatra da je povređivanje uretre uzrokovano avulzijom membranozne iz bulbarne uretre na mestu gde se spajaju na perinealnoj membrani. Takođe se ranije mislilo da se tada dešava potpuni defekt mokraćne cevi, ali je sada poznato da se može javiti i delimično i potpuno oštećenje mokraćne cevi. Procenat učestalosti delimičnog i potpunog oštećenja varira 11%–90% za delimično i 6%–100% za potpune. Ove široke varijacije nastaju zbog varijabilnosti u upotrebi uretrografije za postavljanje dijagnoze.

Abstract

Introduction: We examined the frequency of urethral injuries, which occur as a result of pelvic fractures and which are most often associated with unstable pelvic fractures.

Material and Methods: In this retrospective study, the analysis included 40 patients treated at the Urology Clinic in Niš and the Urology Department in Prokuplje, in whom the diagnosis of urethral injury due to pelvic fracture was made by clinical examination and diagnostic tests. Their average age is 41 years old. All patients underwent urethrography (retrograde or antero-grade), which is the gold standard for the diagnosis of urethral trauma. Computed tomography (CT) was performed on all of them, while magnetic resonance imaging (MRI) was performed on 24 patients.

Results: Pelvic fractures resulting in urethral injuries are high-intensity injuries with a mortality rate between 5–33%. Urethral injuries occur in 1.6% to 25% of pelvic fractures. Injuries to the urethra most often occur with fractures of all 4 pubic branches with or without damage to the sacro-iliac joint, with fractures of the lower pubic branch with separation of the pubic symphysis and Malgagni fractures (dislocations of double pelvic ring fractures). Combined injuries of the urethra and bladder occur in 1–33% of patients. The initial medical approach should concentrate on resuscitation and stabilization of the patient, followed by identification of any associated injuries.

Conclusion: In all urethral injuries due to pelvic fractures, other organs are always injured. That is why urethral injury is never in the foreground. Earlier theories about the mechanism of urethral injury believe that they occur through the action of horizontal force on the membranous urethra, and in the place where the urogenital diaphragm is fixed. Today, urethral injury is thought to be caused by avulsion of the membranous from the bulbar urethra where they join at the perineal membrane. It was also previously thought that a complete defect of the urethra occurs, but it is now known that partial or complete damage to the urethra can occur. The percentage of frequency of partial and complete damage varies from 11–90% for partial and 6–100% for complete. These wide variations are due to variability in the use of urethrography for diagnosis.