

UNFAVORABLE FACTORS OF OUTCOME IN THE TREATMENT OF SUPPURATIVE RENAL INFECTIONS

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FAKTORI NEPOVOLJNOG ISHODA LEČENJA SUPURATIVNIH INFEKCIJA BUBREGA

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ABSTRACT

The purpose of this study was to identify and quantify potential prognostic factors in treatment of suppurative renal infections which influence the outcome. For that purpose a retrospective review of 75 renal suppurative infection patients, at three tertiary Serbian clinics of urology from 1999 through January 2006, was conducted. This series comprised 49 women and 26 men, mean age 56.7 years, range 21–78. Patients were categorized into 3 groups according to the type of suppurative infections: a) unilocular renal or perirenal abscesses, b) pyonephrosis only and c) multiple renal or pyonephrosis infections along with extension on perirenal space. Additional classification was done according to favourable or unfavourable outcome (fatal outcome, unnecessary loss of kidneys or occurrence of recurrent infections which require nephrectomy). The following clinical characteristics were analyzed: demographic data, laboratory findings, comorbidity, infective complications, clinical course, the time of applied drainage/surgical procedures, inadequate diagnosis, refusal/inadequacy of patients for designed interventions and complications of urologic treatment. Leucocytosis in this series of patients showed to be a significant factor of the outcome (OR= 1.011; p = 0.004). Extension of infections beyond boundary of kidneys was more common in patients with greater number of predisposing medical problems, and were followed by more common complications of infectious process (OR= 6.249; p = 0.014), while comorbidity is independent factor of adverse outcome (OR= 3.167; p = 0.002). Pyonephrosis (OR= 0.158; p = 0.021) and complications of urologic treatment (OR= 26.364; p = 0.004) are significant factors of treatment. The comorbidity (OR= 3.366; p = 0.001) is independent factor of failure, and pyonephrosis (OR= 0.127; p = 0.02) is favourable independent factor of favourable outcome. Serious complications which are possible during the treatment of these patients bear high risk of failure.

Abbreviations: CI = confidential interval, d/s = drainage/surgical, OR = odds ratio, PC = percutaneous, SIRS = Systemic inflammatory response syndrome.

Key words: outcome assesment, risk factors, kidney, suppuration

SAŽETAK

Cilj ove studije je da se identifikuju i kvantifikuju mogući prognostički faktori u tretmanu supurativnih infekcija bubrega koji utiču na ishod lečenja. Retrospektivno su pregledani podaci 75 bolesnika lečenih u tri tercijerne srpske urološke klinike u periodu od 1999 do 2006 godine. U serije je uključeno 49 žena i 26 muškaraca, prosečne starosti 56.7 godina, u rasponu 21–78. Bolesnici su kategorisani prema vrsti patološkog procesa u 3 grupe: a) sa unilokularnim renalnim ili perirenalnim apscesima, b) sa samo pionefrozama i c) sa multiplim renalnim ili pionefrozom infekcijama uz ekstenziju na perirenalni prostor. Dodatna klasifikacija učinjena je prema povoljnom ili nepovoljnom (u slučaju fatalnog ishoda, nepotrebnog gubitka bubrega ili u slučaju pojave recidivne infekcije koja zahteva nefrektomiju) ishodu lečenja. Analizirane su sledeće kliničke karakteristike: demografski podaci, laboratoriski nalazi, komorbiditet, infektivne komplikacije, klinički tok, vreme primene drenažno/hirurških procedura, neadekvatne dijagnoze, odbijanje/nepodesnost bolesnika za planirane intervencije i komplikacije urološkog lečenja. Vrednosti leukocita pokazale su se značajnim faktorom ishoda (OR= 1.011; p = 0.004). Ekstenzije infekcija van granica bubrega češća je u bolesnika sa većim brojem predisponirajućih stanja, praćene su češćim komplikacijama infektivnog procesa (OR= 6.249; p = 0.014), dok je komorbiditet nezavisni faktor nepovoljnog ishoda (OR= 3.167; p = 0.002). Pionefroze (OR= 0.158; p = 0.021) i komplikacije urološkog lečenja (OR= 26.364; p = 0.004) značajni su faktori lečenja. Komorbiditet (OR= 3.366; p = 0.001) je nezavisni faktor neuspeha, a pionefroze (OR= 0.127; p = 0.020) povoljan nezavisna faktor ishoda. Ozbiljne komplikacije koje su moguće u toku tretmana ovih bolesnika nose visok rizik neuspeha.

Skraćenice: CI = confidential interval, d/s = drainage/surgical, OR = odds ratio, PC = percutaneous, SIRS = Systemic inflammatory response syndrome.

Ključne reči: procena ishoda, faktori rizika, bubreg, supuracija