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Research Article

THE CONSEQUENCES OF LONG TERM RESULTS OF THE TREATMENT OF PATIENTS WITH BLUNT KIDNEY INJURIES

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ABSTRACT

Currently the leading damage organs of the urinary system occupy closed kidney injuries and their number with each increases over the year. However, the problem of providing first aid to victims with closed kidney injuries, as well as their further treatments are among the most urgent in modern urology and cause wide discussion. Analysis have undergone closed kidney damage, allows us to conclude that the indications for operational organ-preserving treatment of victims should be expanded to reduce the number of complications in late post-traumatic period.

KEYWORDS

Kidney injuries, long term results, investigations, pediatric kidney injuries.

INTRODUCTION

Injuries to the organs of the urinary system occupy one of the leading places in urgent urology [1,3]. From a timely and correctly provided specialized medical assistance to victims with trauma of the genitourinary organs in a significant degree depends on the results of their treatment [7]. Currently the leading damage organs of the urinary system occupy closed kidney injuries and their number with each increases over the year [4]. However, the problem of providing first aid to victims with closed kidney injuries, as well as their further treatments are among the most urgent in modern urology and cause wide discussion [3]. There are various recommendations in the literature for the provision of medical care in a closed kidney injury. Some authors adhere to the most conservative tactics with closed kidney damage and operate on patients only with life-threatening bleeding [1]. Others [2,5] are constantly expanding indications for organ-preserving operations with closed kidney damage. So far in literature, only a few reports [6] are devoted to long-term results of treatment of closed kidney injury in the late post-traumatic period depending on the performed during hospitalization affected treatments. Not defined specific indications for conservative and surgical methods of treatment of closed injuries kidneys. Frequency of interest and the pathogenesis of such post-traumatic complications, as chronic pyelonephritis, nephrolithiasis, secondary wrinkling of the kidney, hydronephrosis, kidney cysts, nephroptosis, pyrogenic hypertension, and timing the development of these complications after injury. Therefore, the issues of providing emergency care victims with closed kidney injuries and the choice of a rational method of their treatment are one of the most relevant, but not enough studied problems of modern urology. The purpose of this work was to increase the effectiveness of treatment of victims with

closed kidney damage based on the assessment of the results of the hospitalization patients therapy depending on the nature kidney damage and the method of treatment.

MATERIALS AND METHODS

This study is based on survey data at primary hospitalization to the urological and pediatric surgery departments of Samarkand branch of Republic Emergency centers in 2008-2021 years including 259 injured with closed kidney injury and analysis of distant the results of their treatment 3 years or more after injury. Traffic accident caused a closed injury kidney in 151 (58.3%) victims, sports injury - in 36 (13.9%), falling from a height - in 25 (9.6%), beating - in 31 (12.0%), explosive injury - in 4 (1.5%), work injury - in 6 (2.3%), household injury - in 5 (1.9%), iatrogenic injury - in 1 (0.4%) victim. Male victims there were 205 (79.1%) and 54 (20.9%) women.

The right kidney was injured in 136 (52.5%) victims, the left - in 123 (47.5%). Average age the number of victims was 36.2 ± 5.5 years. Majority victims (219, which amounted to 84.6%) were admitted to the clinic during the first days after injury, from 142 (54.8%) - during the first 6 hours after injury. Later others were hospitalized victims with a bruised kidney, as they are later sought medical help in connection with mild symptoms. To characterize the degree of kidney damage for a closed injury, we used the classification N.A. Lopatkina (1992), according to which closed kidney damage is divided into six groups depending on the nature of the damage renal tissue and the perirenal surrounding the kidney fiber. Renal damage tissue is one of the criteria for choosing a method treatment of victims with closed kidney injury. In 119 (45.9%) of 259 victims we observed about a closed kidney injury was

conservative treatment was performed, and 140 (54.1%) patients in the first hours after urgent hospitalization emergency organ-preserving surgical interventions: suturing rupture of the kidney, drainage of the perineal tissue, resection of the kidney pole, etc. All 259 victims we observed there was only isolated kidney damage, because with associated injuries of the kidneys and other organs victims are admitted to traumatic general surgical and neurosurgical hospitals. In addition, during the same time (2008 – 2021yy) we observed 28 patients with complete crushing ablation or detachment of the kidney from the renal pedicle, which for urgent indications immediately after hospitalization was performed nephrectomy. However, the long-term results of nephrectomy in patients of this group were not considered in this work.

All the victims we observed with closed kidney injuries were examined over time - at the time of urgent hospitalization patients to the clinic immediately after injury, in the nearest (early) post-traumatic period after treatment before discharge patients from the hospital, and in late post-traumatic period - after 12 months. - 26 years after the treatment carried out. The survey was comprehensive and included general clinical, laboratory, ultrasound and X-ray research methods. To all patients underwent ultrasound during hospitalization examination of the kidneys, which, with further observation of them was repeated many times. When interpreting the scans, the attention to the contours of the kidney, its size, presence education both around the kidney and intrarenal. In 76 patients during their hospitalization and in post-traumatic period color duplex scanning of renal vessels in real time. All patients with their hospitalizations were performed by observation and excretory urography, radioisotope renography, in 52 victims - computed tomography. Particular attention was paid to the functional state the affected kidney in dynamics.

RESULTS

Conservative treatment was carried out in 119 (45.9%) patients we observed, including all 39 admitted with kidney injury, 24 (46.2%) victims with fibrous capsule rupture and damage to perirenal tissue and 56 (43.7%) patients with renal tissue rupture, but without penetration of the rupture into the calyx-pelvic kidney system. It consisted in the appointment strict bed rest at 14-20 days, prescribing hemostatic drugs within 5-7 days, appointment in 90 patients this group of drugs that prevent the development rough scars and adhesions, the appointment of uroantiseptics or antibiotics for 10-14 days, carrying out immune stimulating therapy during 7 days to prevent the development of chronic pyelonephritis. Surgical organ-preserving treatment immediately after hospitalization, 140 (54.1%) observed victims with a closed kidney injury, including 28 (53.8%) patients with rupture of the fibrous capsule and paranephria, 72 (54.3%) patients with renal parenchymal rupture without penetration of the wound into the calyx-pelvis system and all 40 patients with renal rupture parenchyma with penetration of the wound into the cup renal pelvic system. Operational the intervention consisted of suturing the kidney wound with tamponade of the wound with a hemostatic sponge or fibrin film with obligatory drainage wounds, and if there was a rupture of the parenchyma with penetration of the wound into the calyx-pelvic system kidneys, then with the obligatory imposition nephro- or pyelostomy. For retrospective performance evaluation the chosen method of treatment for closed injuries.

CONCLUSION

Analysis of long-term results of treatment of victims, have undergone closed kidney damage, allows us to

conclude that the indications for operational organ-preserving treatment of victims should be expanded to reduce the number of complications in late post-traumatic period. Indications for urgent organ-preserving treatment of victims with a closed kidney injury is like a bruise or rupture of the parenchyma kidneys without penetration of the wound into the calyx pelvic system, but with continuing internal bleeding, increasing perirenal hematoma, pronounced gross hematuria or hemotamponade pyelocaliceal system and rupture of the kidney with penetration wounds in the calyx-pelvis system.

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