ISMA INFORMĀCIJAS SISTĒMU MENEDŽMENTA AUGSTSKOLA
ANNO 1994

ISMA University of Applied Sciences

International scientific conference

TRENDS AND AREAS OF HEALTHCARE DEVELOPMENT IN THE EU AND UKRAINE

December 25–26, 2024

IZDEVNIECĪBA BALTIJA PUBLISHING
2024

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DOI https://doi.org/10.30525/978-9934-26-514-3-13

REVIEW OF STANDARD LABORATORY PARAMETERS FOR PREVENTING POSTOPERATIVE INFLAMMATION IN PATIENTS WITH UROLITHIASIS

ОГЛЯД СТАНДАРТНИХ ЛАБОРАТОРНИХ ПАРАМЕТРІВ ДЛЯ ПРОФІЛАКТИКИ ПІСЛЯОПЕРАЦІЙНОГО ЗАПАЛЕННЯ У ПАЦІЄНТІВ ІЗ СЕЧОКАМ'ЯНОЮ ХВОРОБОЮ

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Urolithiasis is rapidly becoming one of the most common pathologies treated in urological inpatient settings. The exact causes of stone formation

remain unclear, but several contributing factors have been identified. Primarily, hereditary metabolic disorders in the body lead to the formation of calculi. Other unfavorable factors include lifestyle aspects, such as living in arid climates and consuming insufficient amounts of fluids.

Stones form in the renal calyceal system, where they can remain and grow indefinitely or migrate with urine flow into the ureter, where they often become lodged, causing pain for the patient. When lodged in the ureter, a stone disrupts normal urine flow, leading to increased intrarenal pressure and pain known as renal colic.

The primary goal of treatment is to restore the unobstructed flow of urine through the urinary tract. Stones measuring up to 4 mm pass through the urinary tract spontaneously in 80% of cases, while stones measuring 5 mm have a 50% chance of doing so. Active medical intervention is necessary for stones that cannot pass on their own. Currently, two main methods of mechanical stone fragmentation – extracorporeal shock wave lithotripsy (ESWL) and contact laser lithotripsy – are widely used due to their high effectiveness. The first method is recommended for loose stones with a density of up to 1000 Hounsfield units. Contact laser lithotripsy, however, can handle stones of any density.

Laser lithotripsy is a minimally invasive and highly effective technique capable of fragmenting stones of any density. This method involves directing laser energy toward the stone. Factors to consider when using this method include the highly restricted working space (the ureteral lumen is only 3–5 mm), the localized area of laser impact, and the dissipation of laser energy with each millimeter of penetration, which can potentially damage the surrounding urothelium along with fragmenting the stone.

Studies have shown that postoperative complication rates after laser lithotripsy range from 6.7% to 20.7% [1, p. 158; 2, p. 387]. The most common complication is systemic inflammatory response syndrome (SIRS), which often necessitates prolonged patient hospitalization [3, p. 758]. Therefore, timely identification and diagnosis of urothelial damage are critical.

In a retrospective study by Sugihara analyzing 12,372 surgical procedures involving laser lithotripsy [4, p. 459], it was found that for patients with procedures lasting 1 hour or less, the relative risk of infectious complications increased by 1.58 times. For surgeries exceeding 2 hours, this risk increased to 4.28 times. These findings underscore a direct correlation between the duration of laser exposure on the ureter walls and the likelihood of infectious and inflammatory changes in the postoperative period.

Another important factor to consider is the biofilm on the stone surface. This biofilm protects bacteria that, upon stone fragmentation, are released along with endotoxins, potentially penetrating the ureteral wall through the

laser-induced defects. Additionally, the pressure of irrigation fluid during the procedure can further facilitate the spread of infection into damaged tissues [5, p. 163; 6, p. 221].

To ensure effective postoperative treatment and timely identification of potential complications, it is crucial to study and identify key markers indicating complications. This allows for an accurate assessment of the extent of urinary tract wall damage caused during the procedure. From an economic perspective, enhancing and developing existing diagnostic methods is justified. A highly effective marker for tissue damage is the presence of epithelial tissue levels in urine in the postoperative period. These markers directly correlate with the degree of tissue destruction and can serve as reliable indicators for early detection of damage, enabling the initiation of intensive therapy to prevent and mitigate inflammatory changes in the patient's body.

Considering the above, studying and expanding the range of effective indicators for assessing urothelial damage is relevant and justified in clinical practice. This will facilitate the development of effective diagnostic methods for use in urological inpatient settings.

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DOI https://doi.org/10.30525/978-9934-26-514-3-14

FACTORS FOR THE FORMATION OF SOCIAL ADAPTATION IN YOUNG PEOPLE WITH ARTERIAL HYPERTENSION

ФАКТОРИ ФОРМУВАННЯ СОЦІАЛЬНОЇ ДЕЗАДАПТАЦІЇ У ЮНАКІВ З АРТЕРІАЛЬНОЮ ГІПЕРТЕНЗІЄЮ

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Артеріальна гіпертензія (АГ) має важливе медико-соціальне значення, це пов'язано з її поширеністю, ранньою інвалідизацією осіб молодого працездатного віку. Тому, профілактика її важких ускладнень та обмежень життєдіяльності хворих має починатися біля витоків хвороби [1, с. 249–252]. В останні роки дослідники звертають увагу на різні психологічні порушення у хворих на артеріальну гіпертензію, які діагностуються у 60–80% хворих [2, с. 6–7]. Соматопсихологічний компонент, в першу чергу, характерний для артеріальної гіпертензії, аритмій та ішемічної хвороби серця [3, с. 2140–2144]. У формуванні соціальної дезадаптації хворих на гіпертонічну хворобу (ГХ) має значення сам факт встановлення захворювання, необхідність тривалого прийому лікарських препаратів, недостатня ефективність від проведеної терапії, а у підлітків ще й дисгармонічні взаємини в сім'ї та з оточуючими [4, с. 179–180].

Матеріали та методи. Проведено комплексне клініко-психологічне обстеження 57 підлітків 15–18 років з АГ із ураженням органів-мішеней та кризовим перебігом захворювання. Функціональний стан серцево-судинної системи оцінювали за даними ультразвукового обстеження серця в "М" та "В" режимах з використанням датчика 3,5 мГц