



FUNCTIONAL STATE OF THE KIDNEYS IN PATIENTS WITH UROLITHIASIS IN THE ELDERLY

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Annotation: One of the most common forms of chronic progressive nephropathy leading to the development of chronic renal insufficiency, along with atherosclerotic lesions and diabetic microangiopathy, is chronic pyelonephritis, the background for the development of which is often a urinary tract obstruction with a concretion

Key words: urolithiasis, markers of nephrofibrosis, renal function, tubulointerstitial changes.

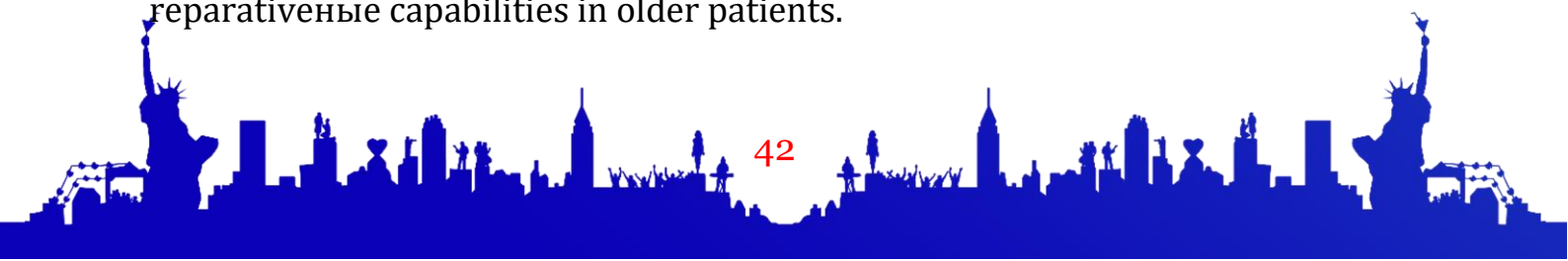
According to modern concepts, age-related changes in the kidney are characterized by loss of renal mass, arterial sclerosis, hyalinosis of arterioles, an increase in the number of sclerotic glomeruli, loss of tubules, and interstitial fibrosis. Currently, it is believed that the decrease in renal function is more closely correlated with tubulointerstitial changes, the indicator of which is β 2-microglobulin (β 2-MG)

MATERIALS AND METHODS 110 patients with nephrolithiasis were examined and treated at the Urology clinic of the TMA Clinical Hospital.

Patients with acute pyelonephritis, complete obstruction of the urinary tract, accompanied by impaired renal function and hydronephrotic transformation, patients with acute and end-stage renal insufficiency, patients with severe concomitant pathology and severe obesity were excluded from the study.

The high prevalence of persistent GFR reduction and the poor overall prognosis characteristic of older patients determine the need for early detection and, if possible, prevention of the development of CRF. Measurement of the concentrations of a number of cell response mediators, including the main markers of nephrofibrosis, along with the use of traditional methods allows for a more detailed assessment of existing renal damage.

When analyzing the results obtained, it was found that the concentration of IGF-1 does not undergo significant changes depending on creatinine clearance and GFR. At the same time, the concentration of IGF-1 in the older age group was not significantly lower than in Group 2 patients, which may reflect lower reparative capabilities in older patients.





The study does not confirm a significant increase in the activation of nephrofibrosis processes in patients with ICD of the older agegroup compared to middle-aged patients. Probably, this trend is due to the peculiarities of the course of the pathological process in ICD, associated with a predominant lesion of the tubulointerstitial apparatus. As a result of repeated relapses of ICD in middle-aged patients, persistent and irreversible changes in the renal parenchyma also occur, leading to the development of tubulointerstitial fibrosis.

The decrease in the functional capacity of the kidneys in patients with ICD of the older agegroup is due to both tubulointerstitial changes on the background of nephrolithiasis, and involutional changes in the interstitium and club capillaries.

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