

PREVENTIVE TREATMENT OF PYELONEPHRITIS PATIENTS

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Rationale. The annual prevalence rate of urinary tract infections in Russia is about 1000 occurrences for every 100 000 citizens [3].

The comparison of data on primary disablement from the most common groups of urological conditions, the chronic pyelonephritis comes second (21.4 – 23%), with only malignant neoplasms ahead of it [7].

A certain increase has been registered in the proportion of pyelonephritis among the main causes of the chronic renal disease in Russia. Chronic pyelonephritis comes second in the hierarchy of what causes the chronic renal disease with the proportion of 17.1 % [8].

The goal of the study. Tracing the influence of medical and social factors on the development of pyelonephritis and developing methods of its prevention.

Materials and methods. We have studied 390 medical records of patients suffering from chronic pyelonephritis: 77 men aged from 21 to 58 and 313 women aged from 19 to 83. Then 162 patients (54 males and 108 females) from the aforementioned group underwent a special survey.

Results and discussion. A single-factor analysis of variance was conducted with establishing the impact of every adverse factor, with further ranking thereof.

The results of the single-factor analysis of variance are presented in Chart 1.

Chart 1

The most important social, hygienic, medical and biological factors influencing the progression of chronic pyelonephritis

No	Factors	Scale of the factor	Impact (%)	Ranks
1.	Patients' social position	People engaged in intellectual labor	13.79	III
		Students	9.17	
		People engaged in physical labor	20.68	
		Retired senior citizens	25.24	
2.	Patients' smoking habits	Yes	48.43	IV
		No	17.46	
3.	Patients' physical activity,	Yes, regularly	44.52	VI

	sports and exercises	No / Not regularly	19.87	
4.	Urological conditions	Yes	64.87	I
		No	22.17	
5	Diabetes mellitus	Yes	35.3	IX
		No	28.15	
6.	Duration of the disease	Under 10 years	42.23	VII
		Over 10 years	21.85	
7.	Age of the emergence of the disease	Before 17	10.62	V
		18-35	13.93	
		36-49	16.92	
		50 and older	23.22	
8.	Frequency of chronic pyelonephritis exacerbations	3 times a year or more often	41.81	VIII
		1-2 times a year	12.62	
		Less than once a year	9.46	
9.	Medical supervision on an outpatient basis	Regular	19.05	II
		Irregular	52.74	

The findings show that the influence of the majority of factors on the progression of pyelonephritis is significant. The establishment of the impact of every adverse factor allows us to develop certain medical and social measures to eliminate or weaken these factors, which must increase the efficiency of the medical help to pyelonephritis patients.

Recommendations for elimination (reduction) of medical and social factors influencing the condition of pyelonephritis patients are presented in Chart 2.

Chart 2

Recommendations for elimination (reduction) medical and social factors which influence the condition of chronic pyelonephritis patients.

No	Factors and their scale	Impact and ranking	Measures for elimination (reduction) of the factors
1	Urological conditions - yes	I 64.87	Explain the importance of eliminating the urological condition, the decrease of efficiency of pyelonephritis treatment and

			high probability of treatment failure. Recommend consulting an urologist
2	Medical supervision on an outpatient basis - irregular	II 52.74	Explain the importance of regular medical supervision on an outpatient basis. Invite the patients who are registered in early treatment clinics for examination and treatment on an outpatient basis
3	Social position of the patient - Workers - Retired senior citizens and unemployed citizens	III 20.68 25.24	Normalize the work routine, avoid hypothermia. Recommend reasonable physical exercises depending on the patient's health condition. Recommend consulting an occupational pathologist
4	Smoking - yes	IV 48.43	Explain the negative influence of smoking on the functionality of kidneys
5	Age of the emergence of the disease - 50 and older	V 23.22	Explain the fact of unfavorable course of pyelonephritis being dominant with patients of mature and senior age. A more continuous urological or nephrological supervision is required
6	Patients' physical activity, sports and exercises – no / irregular	VI 19.87	Explain the positive influence of regular physical exercises on the condition of the urinary tract and the urodynamics in general. Recommend consulting a specialist in exercise therapy
7	Duration of the disease – under 10 years	VII 42.23	Regular supervision and follow-up care, sessions of anti-relapse treatment.
8	Frequency of chronic pyelonephritis exacerbations – 3 or more times a year	VIII 41.81	Explain the importance of the earliest possible ambulation upon every exacerbation of chronic pyelonephritis. Warn against self-treatment. Sanitation of centers of chronic bacterial infection required
9	Diabetes mellitus	IX	Control the blood glucose level of

	- yes	35.3	pyelonephritis patients. Recommend consulting an endocrinologist
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Conclusions. The findings of this study demonstrate that the influence of the dominant majority of factors on the pyelonephritis progression is significant. The proposed medical and social measures to eliminate or reduce the most important social, hygienic, medical and biological factors can increase the efficiency of treatment of chronic pyelonephritis patients.

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