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## RISK FACTOR OF DEVELOPMENT OF RENAL AMYLOIDOSE IN JOINT-VISCERAL FORM OF JUVENILE IDIOPATHIC ARTHRITIS

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**Relevance.** Currently, juvenile idiopathic arthritis (JIA) has become a medical and social problem. This is fundamentally related to the significant increase in the number of diseases among children, often severe, progressive late and early development of disability.

**Purpose of the work:** to determine the risk factor for the development of renal amyloidosis in the articular-visceral form of YuIA in children.

Materials and methods of research. 30 children from 3 to 14 years of age with the articular-visceral form of YuIA against the background of immunodiatheses (autoimmune + lymphatic) (ID) were examined. The control group consisted of 25 almost healthy children of the same age. Clinical diagnosis was made on the basis of anamnesis, clinical-laboratory, immunological, functional examination results and diagnostic criteria of YuIA. Children's medical history, family, autoimmune and allergic anamnesis were carefully studied and partial kidney function was checked. The state of cellular and humoral immunity, the concentration of immunoglobulins (Ig) and circulating immune complex (AIK) were examined. Numerical data were processed by Student's criterion.

**Results.** According to the research results, 65.0% of observed patients were girls; 70.0% of patients were 3-6 years old, 30.0% were 7-14 years old. The patients under our observation often had damage to the cervical spine, femur, skull, and jaw joints. In 26.4% of sick children, together with radial deviation of the wrist, ulnar deviation of the fingers was found. The results of X-ray examinations of the joints revealed stage I of radiological changes in 28.0% of patients, stage II in 41.0%, stage III in 20.0% and stage IV in 11.0%. Joint damage occurred in the form of



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polyarthritis (64.0%), oligoarthritis (32.0%), rarely pauciarthritis (2.0%) and monoarthritis (2.0%). The majority of sick children were children of preschool and elementary school age with Still's syndrome and Fanconi sepsis, which is consistent with literature data.

According to the results of the study of partial kidney function in ID patients with the articular-visceral form of YuIA, daily diuresis (P<0.001), periodic decrease in the relative density of urine (P<0.01), selective proteinuria (P<0.001), increased levels of daily erythrocyturia and leukocyturia were found. According to endogenous creatinine clearance (P<0.01), there was a slight increase in urinary creatinine daily excretion (P<0.01) and a decrease in glomerular filtration rate. The results of the immunological examination showed that, compared to the control group, patients had a statistically significant decrease in T-lymphocytes (CD3), T-suppressors (CD8), T-helpers (CD4) and NPhA during the relapse period (before treatment). (P<0.001). A significant increase in the number of B-lymphocytes (CD19), an increase in the concentration of IgA, IgM, IgG, IgE and AIK in the blood serum was found (P<0.001).

## Conclusion.

- 1. Immune diatheses (autoimmune+lymphatic) in the joint-visceral form of juvenile idiopathic arthritis in children are a risk factor for renal amyloidosis based on interrelated and complementary immunopathological processes characteristic of autoallergic pathologies. manifested by secondary immunological deficiency.
- 2. The development process of renal amyloidosis is characterized by a hidden progressive course, and the following are identified: urine relative density, periodic decrease in daily diuresis, daily selective proteinuria, erythrocyturia, increased leukocyturia, daily urinary creatinine, decreased glomerular filtration based on endogenous creatinine clearance.