GENETIC FACTORS IN HYPERTENSIVE NEPHROPATHY

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Relevance: Arterial hypertension can lead to the development of kidney dysfunction, and vice versa, kidney diseases can lead to arterial hypertension. Arterial hypertension damages the microstructure of the kidneys under chronic pressure, leading to sclerosis in the capillaries, the glomeruli. As a result, the filtration function of the kidneys is impaired and kidney failure develops.elevance: Arterial hypertension can lead to the development of kidney dysfunction, and vice versa, kidney diseases can lead to arterial hypertension. Arterial hypertension damages the microstructure of the kidneys under chronic pressure, leading to sclerosis in the capillaries, the glomeruli. As a result, the filtration function of the kidneys is impaired and kidney failure develops. According to statistics obtained worldwide, approximately 25-40% of patients undergoing dialysis in kidney failure are associated with arterial hypertension. According to epidemiological studies, the global prevalence of chronic kidney disease is about 13.4%, and 20% of patients are individuals over 60 years of age. About 27 million people in Russia have chronic kidney disease.ccording to epidemiological studies, the global prevalence of chronic kidney disease is about 13.4%, and 20% of patients are individuals over 60 years of age. About 27 million people in Russia have chronic kidney disease. While symptoms of chronic kidney disease have been found in 36% of people over the age of 60, 16% of working age, the frequency of chronic kidney disease in this age group increases to 26% in the presence of cardiovascular disease. The search for genetic markers is based on a pathogenetic approach, which directly involves the study of genes involved in the pathogenesis of a particular pathology. This thesis covers the interaction of genetic factors in the development of kidney dysfunction.The search for genetic markers is based on a pathogenetic approach, which directly involves the study of genes involved in the pathogenesis of a particular pathology. This thesis covers the interaction of genetic factors in the development of kidney dysfunction.

The purpose of the study: To study the interaction of genetic factors in the development of kidney dysfunction in patients with Arterial hypertension.

Research material and methods: The examination was carried out in a group of patients with observed renal dysfunction, had arterial hypertension and did not have arterial hypertension. All patients studied were subjected to molecular genetic testing. Molecular genetic methods include: DNA separation from peripheral blood lymphocytes, cholda polymerase chain reaction (PZR), which captures the results of PZR.esearch material and methods:the examination was carried out in a group of patients with observed renal dysfunction, had arterial hypertension and did not have arterial hypertension. All patients studied were subjected to molecular genetic testing. Molecular genetic methods include: DNA separation from peripheral blood lymphocytes, cholda polymerase chain reaction (PZR), which captures the results of PZR. The 120 patients examined were studied in 2 main groups, mainly on a “case - control” basis. Group 1 was made up of patients with no arterial

hypertension but advanced kidney dysfunction (n=60), while Group 2 included patients with arterial hypertension and advanced kidney dysfunction (n=60). Of all patients who have developed kidney dysfunction, have arterial hypertension and do not have arterial hypertension, the AGTR1 gene A1166C polymorphism, the EDN 1 gene that affects endothelial dysfunction, Ley198Asn polymorphism, the factor gene encoding lipid metabolism, the LPL gene Ser447Ter polymorphism allele and genotypes of the polymerase chain reaction (PZR) has been examined.

Results and their analysis: when our study studied the co-occurrence of 3 gene genotypes in patients in the first group, the co-arrival of mutated monozygous and heterozygous genotypes of the polymorphism of the EDN1, LPL and AGTR1 genes was found in 7 cases 11.67%.esults and their analysis: when our study studied the co-occurrence of 3 gene genotypes in patients in the first group, the co-arrival of mutated monozygous and heterozygous genotypes of the polymorphism of the EDN1, LPL and AGTR1 genes was found in 7 cases 11.67%. The co-arrival of the mutated monozygous and heterozygous genotypes of the EDN 1 and AGTR1 gene polymorphisms occurred in 10 cases-16.67%. The co - occurrence of EDN1+ AGTR1 genes according to the results showed that arterial hypertension load patients were more likely to develop arterial hypertension later, while the co-occurrence of Group 2 EDN1+AGTR1 genes was 38.33%.

Conclusion

Based on the results of the above examination, we recommend that patients in the development of kidney dysfunction also include a genetic examination method in standard examination methods. Because on our part, the recommended method allows you to determine the development of kidney dysfunction in the pre-clinical period, which helps to prolong the pre-hemodialysis period for doctors by diagnosing patients, choosing the right method of treatment and early detection of the development of complications in patients. In addition, disability caused by disease complications is prevented and mortality rates are reduced.

References

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