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DIAGNOSTIC POSSIBILITIES OF USES IN POLYKYSTOSIS OF KIDNEYS

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Abstract
The article presents the results of examination of 4 patients with polycystic kidney disease. It is noted that ultrasound methods are the most informative in the diagnosis of this pathology. The clinical course of polycystic disease was characterized by low symptoms. With all the severity of morphological changes, kidney function suffered slightly. The possibility of a dynamic change in the size and content of cysts throughout life is assumed, as well as the presence of a congenital defect in connective tissue in familial polycystic kidney disease.

Keywords: polycystic disease, ultrasound diagnostics, kidneys

Polycystic kidney disease is a disease that replaces the renal parenchyma with a large number of cysts of various sizes. The disease is referred to as abnormalities in the structure of the kidneys. At the moment, polycystic disease occurs, according to various authors, up to 1: 350 autopsies. Hereditary transmission of polycystic kidney disease is observed in 10% of cases. The disease is inherited in an autosomal dominant

manner, and is often combined with malformations of other organs - liver, lungs, spleen, etc. The life expectancy of patients with polycystic disease is about 20 years from the moment of diagnosis, however, timely and comprehensive treatment of the disease can increase the life expectancy of patients by 10-15 years.

Within a month, we identified two cases of familial polycystic kidney disease, and a total of four patients were studied, of which two women, 42 and 43 years old, a 20-year-old man and a 14-year-old girl. The examination included laboratory diagnostics (general and biochemical blood and urine tests, urine tests according to Nechiporenko and Zimnitsa, Reberg's test), ECG, ultrasound examinations (ultrasound of the kidneys, abdominal organs and echocardiography), magnetic resonance imaging and excretory urography. In both cases, the disease was inherited through the maternal line, however, there are clearly traced signs of autosomal dominant inheritance - all children get sick, polycystic kidney disease was diagnosed in many maternal relatives, regardless of gender.

As an illustration, here are the case histories of two patients:

1. Patient M., 43 years old. The diagnosis of polycystic kidney disease was first exposed in 2007, at the age of 42, at the time of being in the cardiology department of the city hospital of Bratsk with a diagnosis of ischemic heart disease.

Progressive angina pectoris. Symptomatic arterial hypertension. In the objective status: palpation in the projection of both kidneys are tumor-like formations, there is a pronounced arterial hypertension up to 260/140 mm. rt. Art. From the anamnesis it was found that from childhood she was observed for chronic pyelonephritis, which was often exacerbated. The mother, maternal uncle, nephews and cousin were diagnosed with polycystic nocturnal disease. Laboratory data: a decrease in the concentration function (in the Zimnitsky sample, the specific gravity is in the range 1002-1011), the predominance of nocturnal diuresis over daytime. Rehberg test and level blood creatinine in the normal range, minimal proteinuria Electrocardiographically determined left ventricular hypertrophy. Examination of the fundus revealed angiopathy of the retinal vessels, a symptom of Salus-II. Echocardiography - symmetric left ventricular hypertrophy, prolapse of the mitral and tricuspid valves with the presence of 2nd degree regurgitation.

2. Patient Z., 14 years old. Polycystic kidney disease was first diagnosed at the age of 4 years. At the time of the study, there were frequent pulling pains in the lower back, some weakness, rapid fatigue. Objectively: asthenic constitution, the formation in the projection of the left kidney is palpable, a systolic murmur is heard in the heart with a separation from the I tone with the epicenter at Botkin's point and at the apex. The family nature of the disease is traced: polycystic disease was detected in the mother

and brother, the maternal grandmother died at a young age from kidney disease. The laboratory determined a decrease in the concentration function of the kidneys (the specific gravity of urine was in the range of 1007-1012, the prevalence of night diuresis over daytime). Content, creatinine, urea and other biochemical parameters within the limits of permissible fluctuations.

Ultrasound diagnostic data were found to be quite similar in all cases. Ultrasound revealed an increase in both kidneys, more on the left (in all patients). While the length along the length of the right kidney was within the range of up to 13.7 cm, it was not possible to estimate the true size of the left kidney - the length exceeded the size of the ultrasound sector. In the structure of both kidneys, multiple thin-walled fluid formations were noted - cysts,

caking in the projection of both the parenchyma and the calyx-pelvis apparatus. The size of the formations varies in the range of 1.2-3.5 cm.In older persons (women 42 and 43 years old), the cystic elements are quite homogeneous, their size is in the range of 2.0-3.3 cm, hyperechoic areas can be traced between the cysts parenchyma. On the contrary, in the kidneys of patients aged 16 and 20, hetero the genicity of cystic elements, their sizes vary within the limits of their minimum and maximum values, and the maximum size of the cyst was found in the youngest patient. The parenchyma of the kidney is traced by areas of various sizes, normal acoustic density.

Magnetic resonance imaging of the kidneys reveals an increase in size and volume, mainly of the left kidney (the length of the kidney grows 20 cm). In both organs, formations (cysts) of various sizes (up to 30x35 mm) with clear contours and a well-defined capsule are determined. When determining the signal intensity in patients of different ages, the data differ somewhat (the determination of the signal intensity weighed in water was used). Thus, in a 14-year-old patient, the signal intensity in most formations is an order of magnitude higher than the parenchymal one, but three formations with moderate signal hypointensity were observed. A study of the signal intensity in patients aged 42-43 years revealed a heterogeneous hypointense signal, and areas of hyperintensity were revealed between the cysts, which may indicate the presence of sclerotic changes in the parenchyma. It should be emphasized that regardless of the age of the patients, the heterogeneity of signals from cystic formations is clearly defined, which may indicate different contents of the cysts (for example, different concentrations of substances).

X-ray changes typical of polycystic kidney disease were observed in all patients during intravenous urography. In particular, the polycyclic contours of the kidneys, uneven expansion of the cervical portions of the cups were revealed. The pelvis are compressed, their edges take the shape of the wings. Some calyx necks bend around

the cysts. An analysis of the dynamics of changes in the excretory urogram in a 42-year-old patient (the comparison was made with the urograms of five years ago) determines a clear negative trend: the size of the kidneys increased, signs of compression of the pelvis-calyx complex increased.

The data obtained in the study of other organs and systems deserve special consideration.

The presence of left ventricular hypertrophy with systolic overload according to ECG data, the detection of retinal vascular angiopathy and Salus symptoms 1-11 can be interpreted as signs of a complication of polycystic disease - arterial hypertension. Echocardiographic examination revealed the presence of prolapse of the mitral and tricuspid valves of the II degree with regurgitation in the left and right atria, respectively. During the analysis of excretory urograms, anomalies of the musculoskeletal system development expressed in varying degrees and combinations were revealed. All patients were found to have binuclear discs (L4-L5; L5-8]), a change in the tropism of the intervertebral articular processes, non-closure of the arches of the vertebrae, partial or complete sacralization.

Based on the results of the observation of a group of four people, it is premature to draw final conclusions, but the revealed patterns allow us to draw some conclusions that can be a subject of discussion and a starting point for deeper research.

With all the variety of modern diagnostic methods, we consider it necessary to note that ultrasound diagnostics should be recognized as the most informative. It is also important that this method requires the least material costs. The importance of other medical imaging methods used in our institution is somewhat less important. The value of intravenous urography increases when assessing the dynamics of changes in the size of the kidneys and the state of the pyelocaliceal system. Evaluating the significance of magnetic resonance imaging, it should be noted that the method allows obtaining a large amount of various information, but its main part is currently of purely scientific interest and does not have sufficient clinical significance.

Attention is drawn to the lack of symptoms of the disease. The clinical picture becomes vivid with the appearance of complications, in particular, arterial hypertension. Hypertension manifests itself at a fairly mature age and has features of malignancy: early appearance of left ventricular hypertrophy, vascular disorders, changes in the fundus. We consider it necessary to emphasize that with all the severity of morphological changes and the presence of complications, renal function is not enough, its impairment does not exceed grade I CRF in reducing the concentration function. Nitrogen release remains intact.

The detection of a pronounced variability of cystic elements according to the data of ultrasound scanning and magnetic resonance imaging in younger patients and a smaller fluctuation in size in older patients suggests a transformation in the size of the cysts during life. Based on the same data, the formation of new elements over time is not excluded.

The data obtained with magnetic resonance imaging are of undoubted interest. The detection of different signal intensities from cysts allows us to assume a different composition of the contents of the elements. It can be assumed that there is a different concentration of the electrolyte composition, or about protein content. Revealing the pronounced heterogeneity of the signal in younger patients (the signal varies from initial hyperintensity to hypointensity) and hypointense signals in older patients serves as the basis for the assumption of a dynamic change in the contents of the cysts in the process of vital activity. It should be emphasized that the assumptions made are based only on the results of magnetic resonance imaging and have not yet been confirmed by other methods.

In all examined patients, in the study of organs and systems, in addition to the pathology of the kidneys, anomalies in the development of the musculoskeletal system were revealed - binuclear discs, anomalies in the tropism of the intervertebral articular processes, non-closure of the vertebral arches. The picture is complemented by the prolapse of the mitral and tricuspid valves, revealed by echocardiography, of a significant degree of severity with the presence of regurgitation. Comparing the above facts, we consider it legitimate to assume. that with familial polycystic kidney disease, there is a congenital defect in the development of connective tissue.

Literature

1. Ataeva S.Kh., Ravshanov Z.Kh., Ametova A.S., Yakubov D.Zh. Radiation visualization of chronic joint diseases. Central Asian journal of medical end natural sciences, volume 2 issue 2 March-aprel 2021 P.12-17
2. Hamidov O.A., Diagnostics of injuries of the soft tissue structures of the knee joint and their complications. European research. Moscow. October 2020. № 1 (37). P. 33-36.
3. Khamidov O. A., Khodzhanov I. Yu., Mamasoliev B.M., Mansurov D.Sh., Davronov A.A., Rakhimov A.M. The Role of Vascular Pathology in the Development and Progression of Deforming Osteoarthritis of the Joints of the Lower Extremities (Literature Review). Annals of the Romanian Society for Cell Biology, Romania,Vol. 25, Issue 1, 2021, Pages. 214 – 225

4. Khamidov O.A., Mirzakulov M.M., Ametova A.S., Alieva U.Z. Multispiral computed tomography for prostate diseases. Central Asian journal of medical end natural sciences, volume 2 issue 2 March-aprel 2021 P.9-11
5. Khamidov O.A., Normamatov A.F., Yakubov D.Zh., Bazarova S.A. Respiratory computed tomography. Central Asian journal of medical end natural sciences, volume 2 issue 2 March-aprel 2021 P.1-8
6. Khamidov O.A., Urozov U.B., Shodieva N.E., Akhmedov Y.A. Ultrasound diagnosis of urolithiasis. Central Asian journal of medical end natural sciences, volume 2 issue 2 March-aprel 2021 P.18-24
7. Khodzhibekov M.X., Khamidov O.A., Mardieva G.M. Verification of radiation methods in diagnostics of injuries of the knee joint intra-articular structures. International Journal of Pharmaceutical Research. 2020:13(1), p. 302-308.
8. Mardiyeva G.M., Khamidov O.A., Yakubov D.J., Turdumatov Zh.A. Ultrasound Semiotics of Biker cysts. European science review, Austria, № 1-2 2019, January - February. Volume 2. - P.166-168
9. Rustamov U.Kh., Urinboev Sh.B., Ametova A.S. Ultrasound diagnostics of ectopic pregnancy. Central Asian journal of medical end natural sciences, volume 2 issue 2 March-aprel 2021 P.25-28
10. Turdumatov J.A., Mardieva G.M. Clinical and X-ray peculiarities of the course of chronic obstructive pulmonary disease in combination with diabetes mellitus. European Jounal of Molecular & Clinical Medicine ISSN 2515-8260, Volume 07, Issue 02, 2020. P. 3008-3028
11. Мардиева Г.М., Муродуллаева Д.М., Хамидов О.А. Ультразвуковая верификация синовита у больнқх артрозом коленного сустава. Научно-методический журнал «Достижения науки и образования» (Иваново, Россия). № 16 (70), 2020. Стр.54-59.
12. Мардиева Г.М., Хамидов О.А., Якубов Д.Ж., Оллаберганов М.И. Возможности лучевых методов исследования повреждений мягкотканных структур коленного сустава. БИЛОГИЯ В.А. ТИББИЁТ МУАММОЛАРИ №4 (104) 2018. С. 197-201. Самарканд
13. Турдуматов Ж.А., Ахмедов Я.А. Лучевые методы диагностики хронической обструктивной болезни легких. «Тенденции и перспективы развития науки и образования в условиях глобализации»: Сб. науч. трудов. Переяслав-Хмельницкий. 2019. № 44. С. 534-537
14. Турдуматов Ж.А., Мардиева Г.М. Верификация хронической обструктивной болезни легких методом лучевой диагностики. Журнал биомедицины и практики. Специальный выпуск-2. С. 779-784.

15. Турдуматов Ж.А., Мардиева Г.М. Aspects of verification of radiation diagnostics of chronic obstructive lung disease. Ежемесячный научный журнал «Евразийский союз ученых (ЕСУ)». 2020. №3 (72), 3 часть. С. 42-45
16. Хамидов О.А. Оптимизация лучевой диагностики повреждений мягкотканных структур коленного сустава и их осложнений Американский журнал медицины и медицинских наук, Америка, 2020, 10 (11) - С. 881-884
17. Ходжибеков М.Х., Хамидов О.А. Обоснование ультразвуковой диагностики повреждений внутрисуставных структур коленного сустава и их осложнений. №3 (31), 2020. С.526-529.
18. Якубов Д.Ж., Муродуллаева Д.М., Хамидов О.А., Мардиева Г.М. Ультразвуковое исследование при повреждение мягкотканых структур коленного сустава. Научно-методический журнал «Достижения науки и образования» (Иваново, Россия). №2 (56), 2020. - С.96-99.