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Morphometric Features of Membranous Glomerulonephritis with Nephrotic Syndrome and Correlation of Morphological and Laboratory Indicators

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Abstract: The results of biopsies obtained from patients with nephrotic syndrome were studied. Necessary material for research was collected from patients, who were on treatment and nephrological department of the 1st polyclinic MZ RUz. A comprehensive clinical and laboratory examination was performed in 104 patients. Of these, 58 had a proteinuric form of chronic glomerulonephritis. The mean age of the patients was 24.9±5.2 years. Depending on the morphological variant of glomerulonephritis, all patients were divided into 5 groups. The data of the correlation analysis of the studied morphometric parameters and the data of routine laboratory studies made it possible to create a mathematical model that can be used to determine the morphological form of chronic glomerulonephritis.

Keywords: nephrotic syndrome, morphological form of glomerulonephritis.

Introduction: in subsequent years, significant successes have been achieved in the study of structural and functional changes that occur in kidney diseases, as well as the pathogenesis of the disease. At the same time, the separation system is characterized by an increase in diseases, the organization of glomerulonephritis, the main part of which proceeds with nephrotic syndrome, the development of chronic renal insufficiency as a result of a rapid outbreak of the disease, while creating the need for early diagnosis of the disease. According to the data given in the literature, the chances of be-mores being able to survive are 80% after 5 years in the first type of membranous proliferative Gn and 70% in the second type. And after 10 years, 50% of patients live in the first type, and 40% in the second. A slightly positive result is observed in the third type of membranous proliferative glomerullonephritis.

In membranous gloumeronephritis, 15 years after the onset of the disease, 50% of patients suffer from chronic renal failure in 34% of patients there is a recurrence of persistent proteinuria or nephrotic syndrome, in fact only 16% of patients proteinuria can go away on its own, in the rest of the patients proteinuria becomes chronic or nephrotic syndrome recurs.

Among diseases of the internal organs, chronic glomerulonephritis occupies a leading position. This confirms how great it is in theoretical and practical nephrology to correctly diagnose chronic glomerulonephritis, which develops with chronic renal failure, and to assess their consequences in advance.

B.According to the data given by Shulutko I, among the many chronic kidney diseases, chronic Glomerulonephritis occupies a place in aloxida. Despite several successes in the field, the positive or negative consequences of chronic glomerulonephritis remain difficult to predict from the oldn. All this prompted us to carry out these studies, in which, for the first time, an attempt was made to determine the relationship between the level of proteinuria, the total protein content and other laboratory parameters, as well as morphometric data, in various morphological forms of glomerulonephritis with nephrotic syndrome.

Materials and methods: to solve the tasks that have arisen before us, we studied biopsy materials from 104 patients characterized by nephrotic syndrome from the clinical side. The necessary materials for the examinations were collected from patients treated in the nephrology department of the 1st Clinic of the Ministry of health of the Republic of Uzbekistan. The diagnosis made to patients was confirmed on the basis of their complex clinical and morphological examinations. All-round clinical and laboratory tests were carried out in 104 patients (proteinuria (g/l), ball fil-trasia (ml/min), reabsorption %, total oxyl, creatinine MiG-drug in the blood (mg %), proteinuria (g/s), an unchanged erythrocyte microdistrict in the urine, the amount of leukocytes in the urine, microns of cylinders in the urine, the amount of erythrocytes in the the data was identified and the minutes were filled out. Puncture biopsy of the kidney was carried out with the help of nines "BIP" (Germany) under the supervision of an ultrasound scanning apparatus. For further examinations, 58 patients with a proteinuric form of the disease were taken. The materials obtained for verification were divided into groups corresponding to the same options, in the case of binding to morphological variants of glomerulonephritis.

Results. In 58 patients (74.4%), the proteinuric form of chronic glomerulonephritis was observed, in 19 (24.3 %) the mixed form and in 1 (1.3 %) the hematuric form. In proteinuric form, the incidence among female and male patients was almost the same, with men accounting for 56.4% and women for 43.6%, with the average age of patients equal to 24.9+5.2 years. In order to identify morphological forms of chronic glomerulonephritis, the obtained biopsy namu-Nas were stained with hematoxylin and eosin, picrofuksin according to Van-gizon, an acidic reaction of Shif - iodine was carried out, and immunofluorescence tests were carried out. Of the patients, 23 were mesangioproliferative, 14 were membranous, 11 were mesangiomembranous, 4 were mesangiocapillary, 4 were fibro-plastic, 2 were focal segmental glomerular sclerosis.

As mentioned above, mesangioproliferative gromyelonephritis was detected in 23 patients with nephrotic syndrome emerging to the surface. 6 of them were made up of men, 17 were made up of women. The average age of patients was 25.8+1.4. In patients who entered this group, there were outbreaks of tumors in the oyok, Lake, face and body parts, and in some patients the tumors reached the anasarka stage.

Analysis of laboratory indicators of the number of erythrocytes in the blood (R<0,006; 3,6+0,2*106) showed a noticeable decrease in total protein micdor (R<0.06; 48.5+1.9 g/l), a reliable increase in creatinine micdor (R<0.04; 1.02+0.3 mg%). Changes in the amount of lymphocytes (R<0.5; 29.1+2.2%) are preserved almost around the norm, while in the urine there is an increase in proteinuria (R<0.01; 6.2+0.8 g / l; R<0.02; 5.1+0.8 g/s), Coptic filtration (R<0.02; 43.4+2.7 ml/min) of; A reliable reduction of 92.2+3.6%) was observed, as well as an increase in the number of leukocytes (R<0.01; 9.6+1.9), unchanged erythrocytes (R<0.03; 4.3+0.6) and hyaline cylinders (R<0.01; 6.8+1.4) in the urine.

An increase in the number of mesangial cells in the balls, an expansion of the mesangian sacs were anicalized when examining bioptas from the kidney from the microscopic side. An increase in the number of mesangial cells led not only to the thickening of the basal membrane in this sac, but also to its separation by two. Changes in the basal membrane are clearly visible when painting the resulting cuts using a shik-reaction.

When the kidney balls were examined for immunofluorescence, the presence of Idm with a specific high-intensity illumination was found in the capillary basal membrane of the balls and in the mesangian sphere. In the curved-bugri tubes of the kidney, however, hydropical dystrophy was anicalized.

Examination of the kidney from the morphometric side showed that the surface of the balls was equal to 26078.3+728.9 µm2, a figure that turned out to be more reliable (R<0.01) than the figure in the group obtained for control wear (22642+1268.7 µm2). Such magnification of the surface of the balls, as well as the number of common cells and mesangial cells in the balls (60+1.2 µm2 in the group under investigation; 47.2+2.5 µm2 in the group obtained for control; r<0.001), as well as the number of total cells in the balls (159.2+4.2 and 71.1+1.8) 22.2+0.8; R<0,0001) occurred at the

expense of a reliable increase in the group. An increase in the number of mesangial cells in the balls, an expansion of the mesangial area was anicalized when examining bioptates obtained from the kidney from the microscopic side. An increase in the number of mesangial cells led not only to the thickening of the basal membrane in this sac, but also to its separation by two. Changes in the basal membrane are clearly visible when painting the resulting cuts using a shik-reaction.

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Conclusion: in the development of nephrotic syndrome, each morphological form of SGN occupies different places, including the fact that the role of mesangioproliferative glomerulonephritis is - 39.61%. Each morphological form of SGN has distinguishing morphometric signs, in particular mesangioproliferative glomerulonephritis - the surface of the balls, the surface of the capillary cross section of the balls as well as the number of common cells in the balls, as well as mesangial cells, reliably different from other forms. The data obtained above make it possible to develop a mathematical model corresponding to chronic mesangioproliferative glomerulonephritis, which continues with nephrotic syndrome**.**

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