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## **Analysis of morphological features of kidney in type 2 diabetes**

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**Objectives:** To evaluate the morphological structure of kidney damage in patients with type 2 diabetes

**Methods:** The study involved 36 biopsies performed at Pathology Department of Tashkent Medical Academy in patients with type 2 diabetes mellitus combined suspected non-diabetic kidney damage was analysed. The age of patients (men - 19, women - 17) ranged from 33 to 71 years and averaged  $54.7 \pm 5.3$ . All patients had proteinuria more than 1.0 g/day with a median of 4.2 g/day, 15 of them (42%) had a developed nephrotic syndrome with severe hypodysproteinemia and an albumin level of less than 25 g/l. Morphological changes in the kidneys were evaluated by light microscopy and immunofluorescence with a standard antibody panel. Statistical analysis was performed using the SPSS software package. For parameters with an incorrect distribution, the median, 25th and 75th percentiles were calculated.

**Results:** According to the morphological picture of renal biopsy samples, three groups of patients were identified: group 1 (13 people, 36%), in which changes in the kidneys fully corresponded to the picture of diabetic nephropathy; Group 2 (14 patients, 39%), in which the signs of diabetic nephropathy were combined with the morphological picture of kidney diseases of a different nature. In the 3rd group (9 patients, 25%), there were no signs of diabetic nephropathy and other kidney diseases were detected. Among non-diabetic pathologies, focal segmental glomerulosclerosis (FSGS) (4 patients) and IgA nephropathy (5 patients) were most common. Membranous nephropathy was detected in 6 patients, and just as often (4 patients) a disease of minimal changes was observed.

**Conclusions:** In type 2 diabetes mellitus, pronounced urinary syndrome, and in particular high proteinuria, does not allow us to unequivocally confirm the diagnosis of diabetic nephropathy.