

KIDNEY BIOPSY RESULTS IN PATIENTS TREATED IN THE PROVINCIAL HOSPITAL IN OLSZTYN: CLINICAL – PATHOLOGICAL CORRELATIONS

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Introduction. Renal biopsy remains the diagnostic gold standard in nephrology, especially for patients with suspected glomerulonephritis (GN), nephropathies with rapidly declining GFR, and acute kidney injury.

Aim. To analyze clinical and laboratory indications for performing a kidney biopsy in a large, tertiary, university-affiliated hospital and to analyze the prevalence of specific renal pathologies in the sampled material.

Materials and methods. Patients' clinical, laboratory and demographic data as well as biopsy results were analyzed. Estimated glomerular filtration rate (eGFR) was calculated based on two anthropometric formulas: CKD-EPI and MDRD. Kidney tissue was sampled using the USG-guided automatic Bard device. Biopsy samples were assessed in light and immunofluorescence microscopy, with a broad spectrum of immunohistochemical techniques.

Results and discussion. A group of 27 patients (14 F, 13 M; mean age 44.5 ± 16.6 years) underwent kidney biopsies during the year 2010. We observed the following parameters: 24-hour proteinuria equaled 4.59 ± 4.75 g (F: 2.56 ± 3.05 ; M: 6.61 ± 5.5), and mean serum creatinine – 2.23 ± 2.54 mg/dL (F: 1.31 ± 1.73 ; M: 3.23 ± 2.94); eGFR-EPI and eGFR-MDRD for the entire group equaled 63.2 ± 37.3 and 55.9 ± 34.6 mL/min./1.73m², respectively (F: 81.7 ± 28.2 and 76.0 ± 28.9 ; M: 39.6 ± 34.0

and 37.2 ± 29.4). At the time of biopsy, 44% of patients were in CKD stages 3 to 5; 37% were nephrotic. In the study group, 9 distinct morphological patterns of kidney injury were found: focal segmental glomerulosclerosis (7 cases; 26%), crescentic GN (5; 18%), membranoproliferative GN (4; 15%), lupus nephritis (4; 15%), mesangial proliferative GN (2; 7.5%). In addition, membranous nephropathy, unspecified chronic GN and chronic interstitial nephritis were diagnosed (1 case each). We also obtained biopsies from two recent recipients of cadaveric renal transplants (7.5%) – in both cases acute tubular necrosis was found.

Conclusions. Stage of CKD at the time of biopsy (especially among male patients), lack of a relatively benign IgA nephropathy as well as a predominance of unfavorable histology (mainly FSGS or crescentic GN) suggest an urgent need for early diagnosis of renal abnormalities and early referral for comprehensive nephrological workout and biopsy.