

## Renal Failure in Glomerular Diseases at the Moment of Biopsy

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### Background

Glomerulonephritis (GN) is a rare disease in the developed countries, but frequent in undeveloped, with a large number of sub-classifications. Reliable prognostic information therefore requires excessively long follow-up periods. A great number of GN are "silent" at onset of the disease and are diagnosed in the stage of chronic renal failure (1,2,3). The aim of the present study was to detect late diagnosis of GN, in the stage of chronic renal failure and to detect forms of glomerulonephritis which occur with acute renal failure.

### Methods

A retrospective review was undertaken using databases at Department of Nephrology, from 1976. The following data were registered: patient age, sex, primary glomerular disease, type and stage of renal failure at time of biopsy, as well as the prognosis of the disease in some cases (when it was known).

### Results

*Acute poststreptococcal GN.* 71 patient, 48 male and 23 female, aged 22,72+-1,78 were diagnosed. Acute renal failure was present in 33/71 (47%). Serum creatinine level in the patients with acute renal failure was: 310,09+-55,22 micromol/l.

*Crescentic GN.* 55 patients, 41 male and 14 female, aged 33,24+-1,88 were examined. 31/55 (56,9%) started with acute renal failure and in 17/55(39,9%) the diagnosis was made in the phase of chronic renal failure. Serum creatinine level in the patients with renal failure was: 717,7+-68,26 micromol/l. 4/31 patients with acute renal failure presented complete remission, 12 incomplete and in 15 of them acute renal failure progressed to chronic phase.

*Membranoproliferative GN.* 50 patients, 30 male and 20 female, aged 33,64+-1,96 were examined. 17/50 (34%) were with chronic renal failure with serum creatinine of 180,31+-15,25 micromol/l.

We have diagnosed only two patients with dense deposit disease, with normal renal function at biopsy.

*Minimal change nephrotic syndrome.* 45 patients were diagnosed, 22 male and 23 female, aged 31,8+-2,01. 11/45(24,4%) presented with acute renal failure, completely reversible.

*IgA nephropathy.* 85 patients, 62 male and 23 female, aged 30,33+-1,24, were diagnosed. Chronic renal failure was present in 19/85 (22,8%) of the patients. The group of patients with chronic renal failure was older (40,12+-2,69).

*Focal segmental glomerulosclerosis.* 68 patients, 46 male and 22 female, aged 34,77+-1,77 were diagnosed. High per-

cent of the patients, 41/68 (60,9%) were with chronic renal failure at biopsy, with serum creatinine 210,17+-21,09 micromol/l. Only 4 of the patients with chronic renal failure survived three years without hemodialysis treatment.

*Chronic mesangial GN.* 129 patients, 86 male and 43 female, aged 33,2+-1,08 were diagnosed. 30/129 (23,8%) were with chronic renal failure at biopsy, with serum creatinine 226,43+-43,17.

*Membranous nephropathy.* 89 patients, 52 male, 37 female, aged 40,44+-1,62 were diagnosed. 11/89 (12,3%) were with chronic renal failure at biopsy, and 3/89 (3,4%) with acute reversible renal failure. Serum creatinine level in the patients with renal failure was: 235,29+-40 micromol/l.

*Lupus nephritis.* 43 patients, 5 male and 38 female, aged 29,33+-1,78 were diagnosed. Acute, reversible, renal failure was present in 2/45 (4,4%) and chronic renal failure in 16/45 (35,5%). Serum creatinine levels in the patients with renal failure were high: 450,83+-108,7 micromol/l.

*Purpura Henoch-Schonlein.* Only 7 patients, 6 male and one female, aged 37+-6,53 were diagnosed. Only one patient was with acute renal failure, with complete remission. Chronic renal failure was noted in 4 patients. Serum creatinine levels in the patients with chronic renal failure were: 370+-119,96 micromol/l.

### Discussion and conclusions

Our results suggest that the patients with glomerular diseases from R.Macedonia consult our Department very late. High percent of biopsied patients (first biopsy) are in the advanced stage of chronic renal failure. Acute renal failure in the patients with acute poststreptococcal GN, and intercurrent renal failure noted in patients with minimal change disease and membranous nephropathy in the stage of severe edema are with good prognosis and completely reversible. Acute oligoanuria in the patients with crescentic glomerulonephritis can be reversible under immunosuppression in some cases, so we have to treat all patients with this disease.

### References

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