EFFECT OF REMISSION IN RENAL OUTCOMES OF HIGH-RISK MEMBRANOUS NEPHROPATHY PATIENTS: RETROSPECTIVE COHORT

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Background

Idiopathic membranous nephropathy (MN) is one of the most common causes of nephrotic syndrome (NS) in adults. The natural course of IMN is variable, and data related prognosis were performed 2 or 3 decades ago, when antiproteinuric and immunosuppressive therapies were less well established and efficient than in present times. The aim of this study is to evaluate the clinical course and long-term prognosis of patients with IMN.

Methods

We conducted a retrospective observational single center study of adult patients with nephrotic syndrome (proteinuria ≥ 3.5g/day) resulting from MN, diagnosed by renal biopsy between 2002 and 2012. Patients with secondary MN (associated with systemic lupus erythematosus, malignancies, hepatitis B or C or drugs) were excluded. Patients with NS > 6 months or proteinuria > 8 g/day or deteriorating renal function were classified as high risk, and Cyclosporine A (CyA) without steroids was started. Complete remission (CR), partial remission (PR), doubling creatinine (Cr), Cr clearance (Cl) < 30 ml/min/1.73m^2 and renal replacement therapy (RRT) were analyzed in patients with more than 6 months of follow-up. For continuous variables, the results were expressed as mean (± standard deviation) and comparisons were made by independent samples t-test. For categorical variables, comparisons were made by Fisher's exact test. P-value <0.05 was considered significant.

Results

We evaluated 50 patients, 62% male with a median age of 42.4 ± 16.6 years. Median serum Cr and CrCl were 1.1 ± 0.5mg/dl and 72.2 ± 20.7 ml/min/1.73m^2, retrospectively. Median proteinuria was 7.6 ± 4.6 g/day, serum albumin 2.0 ± 0.81 mg/dl, and 30% of patients had hematuria.

ACEI/ARB treatment was started in 92% of patients. Thirty-three patients (66%) were classified as high risk, and CyA was started for them. Forty-five patients were followed for more than 6 months, with a median follow-up of 55 ± 41 months.Any remission was achieved in 26 (78.7%) of high-risk patients and in 9 (74.9%) of low-risk patients. Outcomes in low-risk patients and high-risk responders and not responders are shown in table 1.

Table 1: Outcomes in low-risk patients and hight-risk responders and not responders

Outcomes	Low risk patients N=12	High risk Responders N=26	High risk Non-responders N=7	p-value
Doubling Cr, n (%)	1 (8.3)	5 (19.2)	5 (71.4)	0.642[a] **0.009**[b] **0.016**[c]
CrCl < 30, n (%)	0	5 (19.2)	7 (100.0)	0.158 [a] **<0.001** [b] **<0.001** [c]
RRT, n (%)	0	0	2 (28.6)	1.000[a] 0.122[b] **0.039**[c]

Cr: creatinine / CrCl: Cr clearance (ml/min/1.73m^2) / RRT: renal replacement therapy
a = low risk patients x high risk responders
b = low risk patients x high risk non-responders
c = high risk responders x high risk non-responders

Conclusions

We found that most of the patients developed PR or CR during the follow-up. High-risk responders patients had similar renal outcomes compared to low risk patients. Nevertheless, high-risk patients who failure in achieving any remission had increased risk of renal disease progression and RRT.

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