

FP123

CRYOGLOBULIN MEDIATED KIDNEY DISEASE: HCV INFECTION, HISTOLOGICAL PATTERNS, ROLE OF RITUXIMAB. MONOCENTRIC REPORTCaterina Cerami², Laura Maria Scichilone², Maria Teresa Mascia¹, Daniele Campioli³, Gianni Cappelli²¹Immune-Rheumatology Unit, Diagnostic and Clinical Medicine and Public Health, University of Modena and Reggio Emilia, Modena, Italy, ²Nephrology Unit, University of Modena and Reggio Emilia, Modena, Italy and ³Department of Laboratory Medicine and Pathology, USL Modena, Modena, Italy**INTRODUCTION AND AIMS:** We present a retrospective monocentric analysis performed on 121 patients referred to Our Unit from 2000 to 2016 with evidence of cryoglobulinemia.**METHODS:** According to *Brouet* classification type III was the most common cryoglobulinemia (48%), followed by type II (23%) and type I (6%); 10% were type II-III.**RESULTS:** As expected, majority of patients with type II had a concomitant HCV infection, while 60% of patients with type III were HCV negative. More than half of the latter had instead autoimmune disorders. All patients with type I were affected by lymphoproliferative disorders.

	TYPE I (n.8)	TYPE II (n.28)	TYPE III (n.58)
HCV+	37,5%	60,7%	40,6%
HCV-			
Autoimmune Disorder		17,8%	55,5%
Lymphoproliferative Disorder	100%	3,5%	8,5%
Solid Tumors		10,7%	25,7%
HBcAb +		22,2%	5,7%

At the onset AKI occurred respectively in 37%, 27% and 28% of type I, II and III cryoglobulinemia, while we registered 25%, 14% and 29% cases of CKD; nephrotic syndrome was reported in 12%, 23% and 16% of cases. Mean creatinine value at referral was respectively 4,5mg/dl, 2,5mg/dl and 2,7mg/dl. 84 patients underwent renal biopsy: the prevalent histological diagnosis was membranoproliferative glomerulonephritis (37 patients), followed by lupus nephritis (9 patients) and membranous nephropathy (5 patients); 4 cases were mesangial forms. Induction therapy included: high pulse dose steroids in 100% of type I, 81% in type II and 73% in type III; alkylating agent (50%, 43% and 20% in type I, II and III); Rituximab in 1 patient with type II and 7 cases of type III; plasmapheresis was performed respectively in 1, 3 and 6 patients with type I, II and III. Relapses occurred in half of the patients with type I (2 episodes per subject) and were all treated with Rituximab (in two cases in association with plasmapheresis). We observed a relapse in 59% of patients with type II (1.5 cases per patient); we used Rituximab in 6 patients, plasmapheresis in 3 patients and both therapies in one case. In type III 12 patients relapsed: Rituximab was chosen in 92% of cases. Maintenance therapy included cytostatic drugs (azathioprine or mycophenolate) in 14% and 23% of cases respectively of type II and III. The incidence of ESRD with necessity of haemodialysis occurred in 25% of patients with type I, 7% of patients with type II and 14% of patients with type III cryoglobulinemia. The loss of 50% of renal function after 7 years of follow-up was similar between patients with type II and III (43% Vs. 34%). We also observed in type I, II, III cryoglobulinemia average age of death of 68, 65 and 73 years.

CONCLUSIONS: Based on clinical and laboratory data we confirm cryoglobulinemic syndrome with renal involvement as a prognostically unfavourable feature, with increased mortality and progression to end stage renal disease. Patients with mixed cryoglobulinemia had a similar outcome.