RITUXIMAB FOR INDUCTION THERAPY OF ANCA-ASSOCIATED RAPIDLY PROGRESSIVE GLOMERULONEPHRITIS

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INTRODUCTION AND AIMS: The treatment of rapidly progressive glomerulonephritis associated with antineutrophil cytoplasmic antibody vasculitis (ANCA-RPGN) is still a topic of interest. The use of glucocorticoids (GC) and cyclophosphamide (CYC) are still the cornerstone in the treatment ANCA-RPGN. B-cell depletion with Rituximab (RTX) might be considered alternative to CYC for remission induction of the disease. The aim of the study is to evaluate the efficacy and safety of RTX for induction therapy of ANCA-RPGN.

METHODS: One hundred twenty five patients were included in the retrospective study, 40% males; mean age 56 ± 14.3 years. Seventy (56%) patients were MPO-ANCA positive, 42 patients (34%) were PR3-ANCA positive, and 12 patients (10%) were ANCA negative. Serum creatinine (SCr) levels was 560 [390; 825] μmol/L, e-GFR at diagnosis was 7.5 [4.6; 12.5] ml/min/1.73 m², 73 patients (56%) required acute dialysis. According to the mode of induction therapy, the patients were divided into 3 groups: 94 patients were treated with GC and CYC (Group 1), 15 patients received GC and RTX (Group 2), 16 patients received GC, CYC and RTX (Group 3). The treated with RTX patients were older (62.2 ± 12.9 vs 53.4 ± 14.9; p < 0.05), had higher SCr levels (690 [470; 1025] vs 530 [377; 802] μmol/L; p < 0.05), and differed by more significant glomerulosclerosis (39 ± 20.1% vs 29.3 ± 24.8%; p < 0.05) and tubulointerstitial sclerosis (45 ± 19.1% vs 33.6 ± 22.1%; p < 0.05). Three years patients and renal survival rate were evaluated.

RESULTS: Three-years patients survival rate were maximal in the Groups 1 and 2 (84% and 91% respectively, NS) and minimal in the Group 3 (31%, p < 0.01). Three-years renal survival rate was significantly higher in the Group 1 (76%, p < 0.01) and much lower in the Groups 2 (22%) and 3 (47%).

CONCLUSIONS: In patients with severe kidney damage, the use of RTX in addition to GC or to combination GC with CYC does not enhance the efficacy of the latter. The adding of RTX to traditional therapy GC and CYC resulted in reducing patient’s survival likely due to increased risk for infectious complications.