CLINICO-PATHOLOGICAL STUDY OF C3 GLOMERULONEPHRITIS AT A TERTIARY CARE CENTRE

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INTRODUCTION AND AIMS: To study the clinico-pathological profile of patients with C3 glomerulonephritis at a tertiary care centre.

METHODS: A prospective observational study of all cases of C3 glomerulonephritis was done between August 2016 and December 2017. C3 glomerulonephritis was defined by predominant glomerular C3 fragment deposition.

RESULTS: Total of the 1190 patients under went biopsy during the study period. C3 glomerulonephritis was present in 32 cases (2.68%). The mean age was 35±2 years. Out of the 32 patients, 18 were male (56.25%) and 14 were female (43.75%). Hypertension was present in 30 out of 32 patients (21.8%) while diabetes was present in 7 patients (21.8%). Most common presentation was with RPGN (72%). The mean serum creatinine at admission was 5.15mg/dl while it was 3.18mg/dl at discharge. 100% patients had active urinary sediments. The mean serum C3 was 83.8 mg/dl with 8 patients (56.25%) having low serum C3 levels in our study. All patients had normal serum C4 levels with mean being 29.34 mg/dl. Anti CFH antibody titres were measured in 6 patients of which it was elevated in 2 patients (33.3%). All patients were managed with pulse steroids followed by oral steroids. IV Cyclophosphamide was used monthly for 6 doses in 14 patients (43.7%) while oral cyclophosphamide was used in 2 patients (6.25%). Plasmapheresis was done in 11 patients (34.37%) and 11 patients required haemodialysis (34.37%).

CONCLUSIONS: C3 glomerulonephritis has emerged as a new entity in the recent past with significant percentage of our patients presenting with RPGN. One third of our patients had advanced renal failure requiring haemodialysis. Plasmapheresis was done in one third of patients. Future studies are likely to throw more insight on this entity.