

Abstract Type : Poster

Abstract Submission No. : PO-1137

Outcomes of Pauci-immune crescentic glomerulonephritis: Single center study

Pallav Gupta¹, AK Bhalla², DS Rana²

¹Department of Dept of Pathology, Sir Ganga Ram hospital, India

²Department of Department of Nephrology, Sir Ganga Ram Hospital, India

Objectives: Pauci-immune crescentic glomerulonephritis (PICN) presents as rapidly progressive renal failure. Present study was undertaken to determine outcomes of PICN based on Berden's classification and renal risk score and to determine effect of individual risk factors.

Methods: Retrospective study was done from January 2013 to December 2018. Histopathological slides were reviewed for percentage normal glomeruli, extent of interstitial fibrosis and tubular atrophy. Cases were grouped into focal, crescentic, mixed and sclerotic categories. The serum creatinine, eGFR at time of biopsy and follow-up, and ANCA positivity were recorded. Renal biopsies were scored based on renal risk score [% of normal glomeruli (>25%,10-25% and <10%), percentage of tubular atrophy and interstitial fibrosis(≤25%,>25%) and eGFR(>15ml/min,≤15ml/min)] into 3 risk categories.

Results: 51 adult patients were included (28 male,23 females). The mean age was 51.2±15.7 years. Mean serum creatinine at biopsy was 7.05±4.57 mg/dl and mean eGFR was 13.6±12.16 ml/min/1.73m². 33 cases were ANCA positive and 18 were ANCA negative(35%). Based on Berden's classification cases were grouped as focal(4), crescentic(29), mixed(12) and sclerotic(6). The distribution of patients based on renal risk score was low(8),medium(23) and high(20). Univariate Cox regression analysis showed eGFR at biopsy (p 0.024), % IFTA (p 0.001) and % normal glomeruli in biopsy (p 0.023) are predictors of ESRD. Multivariate Cox regression analysis confirmed IFTA (p<0.001) and % normal glomeruli in biopsy (p 0.018) as significant predictors of ESRD. Kaplan-Meier survival analysis for histological categories (Log-Rank p=0.046) and the renal risk categories was done (Log-Rank p=0.002).

Conclusions: ANCA was negative in 35% cases. Percentage of normal glomeruli, IFTA and eGFR at time of biopsy were important histopathological and clinical risk factors influencing renal survival. Results of our study validate that recently proposed renal risk score is a better predictor of survival as compared to histological classification proposed by Berden.