A review of the patterns of clinical presentation, histopathological classes and outcomes of lupus nephritis patients at Helen Joseph Hospital

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Abstract

Background: Lupus nephritis (LN) is a significant cause of secondary glomerular disease in South Africa. The entity carries a worse prognosis in people of African descent; early identification and treatment are required to improve patient outcomes. This study aimed to evaluate the potential of presenting features in identifying patients at risk for adverse lupus nephritis outcomes.

Methods: A retrospective review of biopsy-proven LN diagnosed over a 10-year period at Helen Joseph Hospital was undertaken. Clinical, histopathological and renal outcomes data were extracted from 48 patient records. Kaplan-Meier renal survival curves were fitted and compared using Cox-Mantel F testing. General discriminant analysis was used to determine differences in presenting factors between histological and outcomes groups. Effect of clinical and histological parameters on renal outcomes was analysed using multifactorial Cox and linear regression.

Results: 72.7% of patients were of Black African ancestry with median age at diagnosis of 26.5 years. The majority of lesions were proliferative LN (66%); class III was most common (25.5%). Proliferative lesions were associated with higher creatinine (p=0.007); an eGFR below 90mL/min/1.73m^2 increased the odds of proliferative LN (OR=5.60; CI 1.06-29.59; p=0.043). Proliferative LN was associated with a trend towards poorer renal outcomes (p=0.057); higher baseline eGFR was associated with better preserved kidney function at follow up (p=0.003). Baseline urine WCC was inversely related to eGFR and directly related with creatinine at follow up (p=0.041 and p=0.001 respectively).

Conclusion: The present study demonstrates a possible role for baseline eGFR and leukocyturia in predicting the presence of proliferative LN. Since proliferative LN is associated with poorer kidney survival, these investigations may identify patients likely to benefit from empiric high-dose immunosuppression when access to biopsy confirmation may be delayed.