



PROGNOSTIC FACTORS FOR CHRONIC KIDNEY DISEASE AND END-STAGE RENAL DISEASE IN PATIENTS WITH LUPUS NEPHRITIS: A UNIVERSITY HOSPITAL EXPERIENCE IN NORTHEAST OF BRAZIL

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BACKGROUND

Lupus nephritis (LN) occurs in approximately half of all patients with systemic lupus erythematosus (SLE), and is the most common cause of morbidity and mortality in patients with SLE. Lupus nephritis is the most prevalent etiology of secondary glomerular disease leading to chronic kidney disease (CKD) and end-stage renal disease (ESRD). Factors associated with poor renal outcomes vary among studies, and studies coming from Brazil are scarce. The identification of epidemiologic and clinical factors associated with CKD and ESRD in different populations will improve our understanding of LN, and improve the prognosis.

The aim of the present retrospective study was to identify factors associated with the developing of CKD and ESRD in a cohort of patients with LN of a single center of northeastern Brazil.

MATERIALS AND METHODS

We retrospectively studied all 214 patients with LN followed at the Walter Cantídio University Hospital (HUWC/Federal University of Ceará). Demographic, clinical, laboratory and histological data were analysed. Complete remission (CR) was defined as proteinuria < 500mg/24 hours, normal renal function, and inactive urine sediment. Partial remission (PR) was defined as proteinuria between 500mg-1000mg/24 hours, normal renal function, and inactive urine sediment. Renal flare was defined by any presence of cast, proteinuria > 500mg/24 hours and/or hematuria after CR. CKD disease was defined as an estimated glomerular filtration rate (eGFR) < 60ml/min/1.73m² > 3 months. ESRD was defined as the need for permanent dialysis.

RESULTS

Demographics and disease related features in 214 patients with LN are presented in Table 1. The cohort had a mean follow-up of 11.2± 7.2 years. At the end of follow-up, 47.2% had CKD, of which 24.8% had ESRD. With regard to CKD, thrombocytopenia and hypertension were more frequent in these patients. LN more close to SLE diagnosis (11.5±27.6 vs 27.3±49.; p=0.01), more time to begin treatment after LN diagnosis (2.6±5.6 vs 1.0±4.2 months; p=0.004), methylprednisolone (56% vs 44%; p=0.003) and CF (53.8% vs 46.2%; p=0.002), and dialysis at LN diagnosis (10% vs 2.9%; p=0.04) were more associated with CKD. Sustained remission more than 5 years was more frequent in non-CKD patients (74.4% vs 25.6%; p=0.05). Patients with CKD at the time of onset of LN had higher creatinine levels (1.63±1.26 vs 1.21±0.90; p=0.005), lower eGFR (70.4±40.0 vs 84.8±39.2; p=0.016), and higher proteinuria 24hours (3507.4±3606.6mg vs 2595.5±2605.9mg; p=0.048). Creatinine, eGFR and proteinuria 24 hours at 6 and 12 months were also associated with CKD. In logistic regression analysis for CKD, only hypertension, time between diagnosis of SLE and diagnosis of LN and discontinuation of medications were predictors of CKD.

CONCLUSION

Hypertension, LN diagnosis close SLE diagnosis and discontinuation of medications are predictors of CKD.