Changing epidemiology of biopsy proven severe lupus nephritis.

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Background

The epidemiology of lupus nephritis (LN) in UK is poorly documented. The immunotherapy of LN has changed over the last 10 years.

Aim

To analyse the incidence, presenting features and outcome of biopsy proven proliferative and membranous pattern LN (WHO class 3,4 and 5) in Greater Glasgow & Clyde and Forth Valley (GGCFV) over a 22 year period from 1990-2011

Methods

83 patients from GGCFV catchment area were identified from the electronic patient record (EPR) with lupus nephritis diagnosed by renal biopsy in 1990-2011. 15 patients had WHO class 1 & 2 LN and were excluded from further analysis. Patients were divided patients in to 3 cohorts based on date of biopsy:1990-99 (n=13), 2000-2005 (n=22), 2006-2011 (n=33). Baseline clinical data and time to renal replacement therapy (RRT) and death were extracted from the EPR.

Results

Mean age at biopsy was 37.5 years and 79.4% were female and there was no significant difference between the eras. Median serum creatinine and median urine protein:creatinine ratio at time of biopsy were 104 micromol/L and 241 mg/mmol and there was no significant difference between the 3 cohorts. The mean serum albumin at time of biopsy fell significantly through the 3 eras (33.6 v 31.1 v 25.2g/L respectively; $p<0.0001$). Median duration of follow up was 5.4 years (inter-quartile range 2.1-10.4). 3 patients died (1, 0 and 2 patients in each cohort respectively). 4 patients started RRT (2,1 and 1 patients in each cohort respectively). There was no significant difference in actuarial time to death, RRT or both comparing the 3 cohorts.

Conclusions

The data suggest the incidence of WHO class 3-5 LN may have increased. Longer follow up is required to determine if advances in therapy will translate in to longer renal and patient survival.