

Characteristics and Disease Management in a Large Real World Lupus Nephritis Cohort in the U.S.

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Objective: Lupus nephritis (LN) is a common but heterogenous serious manifestation of systemic lupus erythematosus (SLE) associated with increased morbidity and mortality. Some evidence suggests men with SLE more frequently develop LN and with greater severity. The heterogeneity of LN complicates development of new treatment strategies. The purpose of this study was to characterize LN patients compared to non-LN SLE patients in a large, longitudinal, diverse dataset.

The **OM1 SLE Registry** (OM1, Boston, MA) follows more than 37,000 patients longitudinally with deep clinical data, including laboratory, patient-reported and disease activity information, starting from 2013. Registry patients were identified as having new onset or prevalent LN based on relevant diagnosis codes (e.g., glomerular disease in SLE, glomerulonephritis, chronic kidney disease, proteinuria; ≥ 2 codes at least 30 days apart) or documented dialysis or kidney transplant.

As of November 2019, a total of 7267 (19.3%) of SLE patients met applied criteria for LN. At least one eGFR value was available for 71% of those patients and 82% had clinical notes available.

Figure 1: LN Patient Demographics

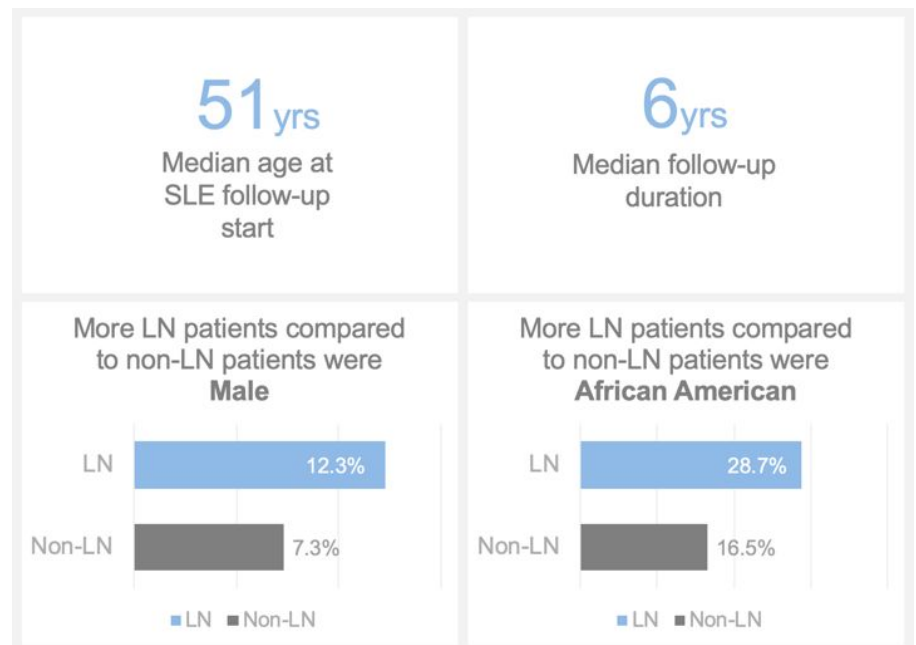


Figure 2: Treatments Used

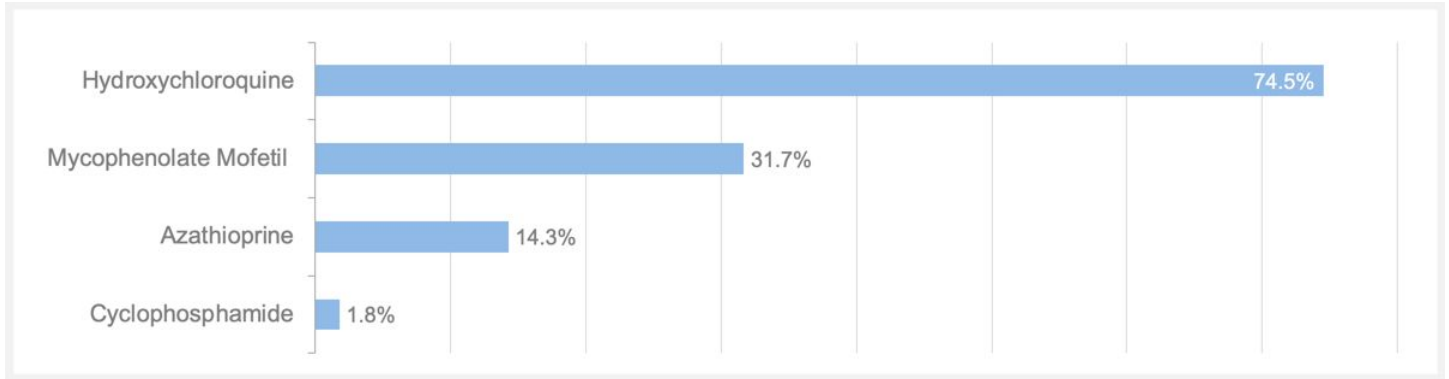
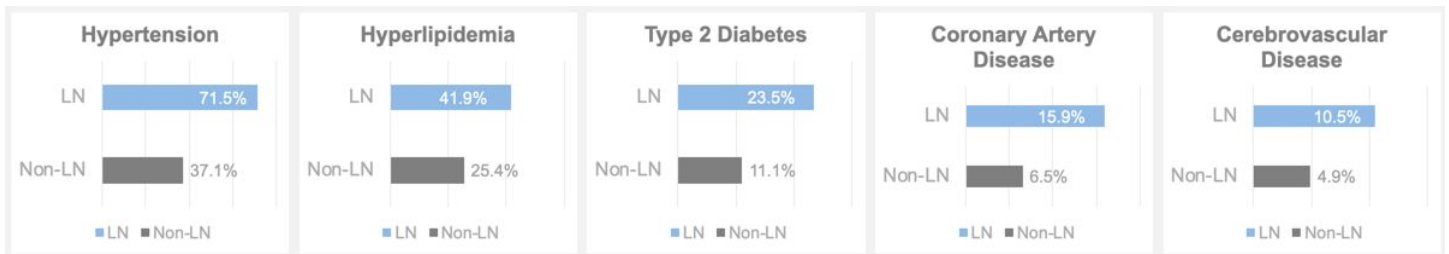


Figure 3: Cardiovascular (CVD) risk factors were more common in LN patients. Over 8% of LN patients had end stage renal disease.



Conclusions

Understanding the heterogeneous characteristics and course of LN patients is critical to refining clinical trial populations and improving renal and CVD outcomes.