

cohort. Image 1 represents the Kaplan-Meier curves according to the factors affecting renal survival.

Abstract SAT0419 – Table 1. Characterisation of the UCLH cohort of Lupus Nephritis patients

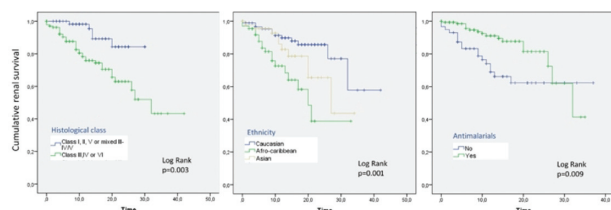
		ISN/RNP 2003 classification						Total	
		I	II	III	IV	V	VI		III+V or IV +V
Total, N		2	18	38	97	38	2	14	209
Sex	F, N (%)	2	18	35	88	33	2	11	189 (90.4)
	M, N (%)	0	0	3	9	5	0	3	20 (9.6)
Ethnicity	Caucasian, N (%)	1	8	19	48	12	1	3	92 (44)
	Afro-Caribbean, N (%)	1	7	9	26	18	1	6	68 (32.5)
	Asian, N (%)	0	3	10	23	8	0	5	49 (23.4)
ESRD, N (%)		0	0	8	26	3	1	2	40 (19)
Deaths, N (%)		0	2	9	21	4	1	1	38 (18)
Age LN diagnosis, mean±SD								28.68±11.81	
Time FU since LN, mean±SD								12.95±8.96	

ISN/RNP: International Society of Nephrology and Renal Pathology Society; F: females; M: males; ESRD: end-stage renal disease; LN: Lupus nephritis; FU: follow-up.

Abstract SAT0419 – Table 2. Final models for predictors of shorter survival.

Multivariable COX regression	HR [95% CI] p
Overall survival	3.002 [1.461–6.171] 0.003
ESRD	
No antimalarials	2.942 [1.430–6.052] 0.003
Ethnicity (Afro-Caribbean)	2.656 [1.250–5.642] 0.011
Age at LN diagnosis	1.039 [1.012–1.067] 0.004
Renal survival	4.424 [1.542–12.695] 0.006
Histological class (III, IV or VI)	
Ethnicity (Afro-Caribbean)	3.727 [1.691–8.218] 0.001
No antimalarials	2.482 [1.237–4.982] 0.011

HR: hazard ratio; ESRD: end-stage renal disease; LN: Lupus nephritis



Conclusions: Cumulative survival rates and causes of death for this cohort are comparable with other cohorts of LN. ESRD confers the higher risk for death; African or Caribbean ethnicities and not taking antimalarials predict shorter overall and renal survival among these patients.

REFERENCE:

[1] Yurkovich M, Vostretsova K, Chen W, Avina-Zubieta JA. Overall and cause-specific mortality in patients with systemic lupus erythematosus: a meta-analysis of observational studies. *Arthritis Care Res (Hoboken)* 2014;66(4):608–16.

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SAT0420 INCREASED RESISTANT HYPERTENSION IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: A RETROSPECTIVE COHORT STUDY

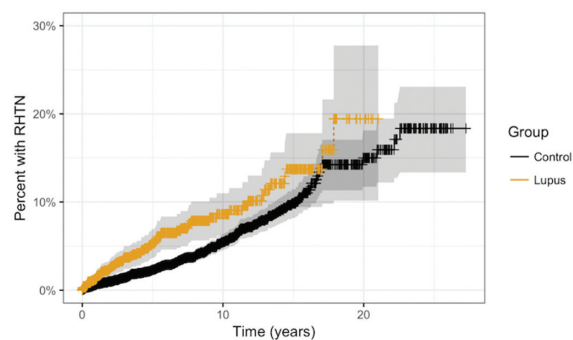
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Background: Resistant hypertension (RHTN) is characterised by blood pressure that remains $\geq 140/90$ mmHg despite concurrent use of 3 antihypertensive drugs. In the general population, RHTN is associated with a 47% increased risk of cardiovascular events.¹ Patients with systemic lupus erythematosus (SLE) have increased cardiovascular risk; however, no research has addressed the incidence, prevalence, or risk factors associated with RHTN in patients with SLE.

Objectives: To compare the risk of RHTN in patients with SLE and frequency-matched controls without SLE; to define factors associated with RHTN in patients with SLE.

Methods: We used a validated algorithm (94% PPV) to identify patients with SLE from the electronic health records (EHR) at an academic medical centre.² We established a control cohort matched by age, race, and sex with a 5:1 control-case ratio. Follow-up began at first ICD9 code for SLE (cases) or first ICD9 code (controls) and continued until RHTN diagnosis or last note. RHTN diagnosis required either the simultaneous use of 3 antihypertensive drugs and a mean blood pressure $\geq 140/90$ mm Hg in the following 6 months, or the use of ≥ 4 antihypertensive drugs simultaneously. We used logistic regression and Cox proportional hazards (CPH) models to compare risk of RHTN between groups, with CPH performed on incident cases only.

Results: We studied 1044 patients with SLE and 5241 controls (median age 42, [31–54] 90% female and 70% Caucasian). Of the total cohort, RHTN developed in 106 SLE patients (10%) and 278 controls (4%). The incidence rate of RHTN was 14.7 cases/1000 person-years in SLE patients compared to 7.4 in controls [HR 1.66, 95% CI, 1.25–2.21] (figure 1). In logistic regression models, RHTN was associated with older age, black race, male gender and end stage renal disease (ESRD). Patients with SLE had a higher risk of RHTN when adjusted for age, sex, race, calendar year, and ESRD [HR 1.53, 1.15–2.05]. In an analysis among SLE patients, RHTN was associated with mortality in an unadjusted model [HR 3.38, 2.20–5.18]. This association remained when age, sex and race were added to the model [HR 2.58, 1.65–4.03], but when ESRD, calendar year and creatinine were included, the association was no longer significant [HR 1.51, 0.91–2.51].



Abstract SAT0420 – Figure 1. Cumulative Incidence of RHTN in SLE versus Control Cohort

Log rank test: $p=0.000391$

Conclusions: Patients with SLE have a higher risk of RHTN compared to frequency-matched controls. RHTN is an important comorbidity for clinicians to recognise in SLE, as it is associated with a 3.3-fold higher risk of mortality.

REFERENCES:

[1] Muntner P, et al. *Hypertension* 2014;64(5):1012–1021.
[2] Barnado A, et al. *Arthritis Care Res* 2017;69(5):687–693.

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SAT0421 LONG-TERM IMMUNOGENICITY OF A QUADRIVALENT HUMAN PAPILLOMAVIRUS VACCINE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Objectives: To report the 5 year immunogenicity of a quadrivalent human papillomavirus (HPV) vaccine (GARDASIL) in patients with systemic lupus erythematosus (SLE).

Methods: Female SLE patients and healthy controls, aged 18–35 years, who received GARDASIL in the year 2011 and sero-converted 12 months post-vaccination were followed for the persistence of immunogenicity at 5 years. Antibodies to HPV serotypes 6,11,16,18 were repeated at 5 years using an IgG immunoassay developed on a Luminex microsphere platform (total IgG LIA; Merck Research Laboratory). The rate of sero-reversion was compared between