Methods: Data were derived from electronic health records for all SLE patients seen in a university-based rheumatology clinic between 2013 and 2018. We evaluated the PF10a's floor and ceiling effects among different racial/ethnic groups. Construct validity was assessed by examining Spearman's correlation coefficients between the PF10a and other patient-reported (pain (scale 0-10) and pain visual analogue scale (VAS) (scale 0-100)), physician-reported (SLE disease activity index (SLEDAI)) and laboratory (erythrocyte sedimentation rate (ESR)) measures. Known-group validity was assessed by evaluating effect size (Cohen's d) between categories of pain (no pain vs. moderate-severe pain). We used standardized response means to examine the responsiveness of the PF10a to longitudinal changes in pain and SLEDAI. MID was estimated using distribution based and anchor-based methods.

Results: We included 612 patients in cross-sectional analyses of validity and 462 patients in longitudinal analyses of responsiveness. Mean age was 40.5±14.6, 87% were female and 32% Caucasian. The PF10a had ceiling effects above the commonly accepted criteria of 15% among Caucasian (23%), Asian (23%) and Other (17%) race/ethnicities, and no floor effects. Construct validity analyses showed strong correlations ($\rho=0.66$, $p<0.05$) with pain VAS, moderate correlations ($\rho=0.58$, $p<0.05$) with pain, and weak correlations with ESR ($\rho=0.25$, $p<0.05$) and SLEDAI ($\rho=0.16$, NS). Known-group validity analyses showed large differences among pain groups (Cohen's d=1.49, $p<0.05$). The PF10a was responsive to improvements in pain (SRM=0.5) and SLEDAI (0.49), but less so to deteriorations in pain (SRM=-0.42) or SLEDAI (SRM=-0.24). Distribution-based MIDs were +8 for improvement and -7 for deterioration. Anchor-based MIDs were +2 for improvement, -3 for deterioration with pain as anchor and +5 for improvement, -5 for deterioration with SLEDAI as anchor.

Conclusion: Although the PF10a showed some ceiling effects, it had good validity in this young racially/ethnically diverse sample with SLE. The PF10a was responsive to improvements in pain and disease activity. The anchor-based MIDs appear to be similar to those reported for PF10a in rheumatoid arthritis(1). This information supports the use of the PF10a in SLE and provides important information to facilitate interpretation of scores.

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SAT0195 SYSTEMIC DISEASES ASSOCIATED WITH AUTOIMMUNE LIVER DISEASES

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Background: Autoimmune liver diseases are considered as a group of hepatobiliary injuries mediated by abnormal immunity in subjects with genetic predisposition. It mainly includes autoimmune hepatitis, primary biliary cholangitis, primary sclerosing cholangitis and overlap syndrome. They are often associated with different manifestations of autoimmune systemic diseases such as systemic lupus erythematosus, CREST syndrome

Objectives: The aim of this study was to evaluate the prevalence and the characteristics of systemic diseases associated with autoimmune hepatopathies

Methods: We carried out a retrospective study from January 1996 to December 2018 including all patients with autoimmune liver diseases followed in our department: 64 primary biliary cholangitis (PBC), 22 autoimmune hepatitis (AIH), 23 overlap syndrome (OS), 15 primary sclerosing cholangitis (PSC).

Results: One hundred and twenty four patients were included in our study : 107 women and 17 men with an average age of 55 years [18-87 years]. An immunological disorder was found in 58 cases (48%): [28 PBC/12 AIH/12 OS/6 PSC] with a female predominance (Sex ratio (Men/

Women) = 0.09). Systemic diseases included respectively: Sjögren's syndrome in 20 cases, systemic lupus erythematosus in 7 cases, rheumatoid arthritis in 5 cases, CREST syndrome in 11 cases and autoimmune thyroiditis in 2 cases. The discovery of autoimmune disorder was in most cases concomitant to the diagnosis of the autoimmune liver disease (67%). Our study showed biological assessment perturbation in 20 cases with positivity of : anti-centromere antibodies (11 cases), anti-SSA antibodies (5 cases), anti-cardiolipin antibodies (4 cases) and rheumatoid factor (5 cases)

Conclusion: Our study shows a strong prevalence of systemic disease during autoimmune hepatopathies. A systematic screening for clinical and biological immune manifestations are highly recommended in those patients.

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SAT0196 RENAL FLARE IN CLASS V LUPUS NEPHRITIS: INCREASED RISK IN PATIENTS WITH TUBULOINTERSTITIAL LESIONS

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Background: Lupus nephritis leads to considerable morbidity and mortality in patients with systemic lupus erythematosus. Although membranous lupus nephritis has a better renal prognosis than proliferative lupus nephritis, progression to end-stage renal disease does occur. Renal flare is an independent predictor of renal prognosis in membranous lupus nephritis.

Objectives: To investigate the risk factors of renal flare in patients with membranous lupus nephritis.

Methods: Biopsy-proven pure membranous lupus nephritis patients diagnosed between January 1997 and September 2017 were studied. We assessed and compared the clinical and pathological parameters between patients who experienced renal flare and those who did not. To identify risk factors of renal flare, multivariable Cox proportional hazard regression analysis with stepwise backward elimination was performed.

Results: Out of the 53 patients with pure membranous lupus nephritis, 17 patients (32.1%) experienced renal flare during a median follow-up of 121.5 months (range, 44.4 – 196.9). Patients who experienced renal flare had significantly higher proportion of tubulointerstitial inflammation at baseline (76.5% vs. 36.1%, $p = 0.006$) and tubular atrophy/interstitial fibrosis (70.6% vs. 27.8%, $p = 0.003$). In multivariable Cox proportional hazard regression analysis, presence of tubulointerstitial inflammation (adjusted hazard ratio (HR) 5.532, 95% confidence interval (CI) 1.722 – 17.776, $p = 0.004$) and tubular atrophy/interstitial fibrosis (adjusted HR 4.328, 95% CI 1.450 – 12.916, $p = 0.009$) at baseline were significantly associated with increased risk of renal flare.

Conclusion: Presence of tubulointerstitial inflammation and tubular atrophy/interstitial fibrosis is associated with increased risk of renal flare in patients with membranous lupus nephritis. Closer monitoring of membranous lupus nephritis patients with tubulointerstitial lesions could lead to earlier treatments and better outcomes.

Table. Multivariable Cox proportional hazard regression analysis evaluating risk factors of renal flare in membranous lupus nephritis

	Adjusted HR	95% CI	P value
Urine WBC $\geq$ 3-5/HPF	0.854	0.193 – 3.774	0.835
Lupus anticoagulant	1.118	0.039 – 4.040	0.865
Activity index (glomerular component)†	1.218	0.621 – 2.387	0.567
Chronicity index (glomerular component)*	1.135	0.752 – 1.712	0.547
Tubulointerstitial inflammation	5.532	1.722 – 17.776	0.004
Tubular atrophy/Interstitial fibrosis	4.328	1.450 – 12.916	0.009

Variables with P value less than 0.1 in the univariable analysis were selected for inclusion in the multivariable analysis.

†Glomerular component of activity index, rather than total activity index, to avoid multicollinearity with tubulointerstitial inflammation

*Glomerular component of chronicity index, rather than total chronicity index, to avoid multicollinearity with tubular atrophy/interstitial fibrosis