Since there are no well-validated tools for SC BEL treatment satisfaction, we used RASQ-SC, validated in patients with lymphoma who switched from Rituximab IV to SC treatment,[3] modified for BEL treatment.

Results Twenty-seven patients were included. Demographic and general characteristics are summarized in table 1. The mean time from treatment with BEL IV before switch to SC was 26 (SD 21) months. 84% of patients reported confidence in BEL SC. 80% felt that treatment with BEL SC was convenient or very convenient. 85% felt they had gained time with the change. 89% would recommend the SC injection to other patients (figure 1a,b,c,d). Disease activity (mean SLEDAI) and remission rates remain stable after switching (see table 1). No major new side effects were reported.

Conclusions Overall satisfaction, satisfaction with via of administration and satisfaction with the time taken to receive BEL were higher for SC BEL treatment. A switching SC strategy is a reasonable alternative for BEL patients.

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LSO-105 D-ALW NANOPARTICLES AMELIORATE LUPUS NEPHRITIS IN MRL/LPR MICE

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Background Anti-dsDNA antibody-targeting peptide mimic ALW has been reported to be a potential strategy in attenuating lupus-like disease in MRL/lpr mice. However, the therapeutic effect of peptide has been hampered due to its unstable architecture and non-renal targeting. Here, we describe a strategy of D-amino acid modified peptide and further engineered it by nanoparticle delivery system to overcome the obstacles in lupus nephritis therapy.

Methods The binding efficiency of D-form mimic peptide (D-ALW) to anti-dsDNA antibodies was assessed in vitro by surface plasma resonance and enzyme-linked immunosorbent assay (ELISA). The inhibition capacity of D-ALW affinity to autoantigens, mesangial cells and glomeruli was determined by inhibitory ELISA, flow cells, and glomerular binding assay. The proteolysis resistance of D-ALW was measured by high-performance liquid chromatography. The peptide D-ALW engineered by PEG-PLGA nanoparticles was injected into BALB/c mice to determine its attenuation in blood and biodistributions in tissue. Polyethylene glycol coated poly lactic-co-glycolic acid was used for the preparation of D-ALW nanoparticles, which were then administered to MRL/lpr mice. The serum anti-dsDNA IgG, complement 3 (C3), proteinuria, renal histopathologic, and renal IgG deposition were analyzed accordingly.

Results D-ALW, but not L-form ALW, can efficiently resist the proteolysis and possess a higher ability of binding to anti-dsDNA antibody IgG isotypes and blocking the binding of the anti-dsDNA antibody to multiple antigens, mesangial cells or glomeruli in vitro. In vivo studies showed that, compared to D-ALW, D-ALW nanoparticles with specific diameter and charge largely enhanced half-life in sera and accumulation in kidneys. D-ALW nanoparticles even improved the renal IgG deposition and glomerular fibrosis in MRL/lpr mice, accompanied by prolonged life-span.

Conclusions This study demonstrated that D-form ALW peptide possesses high efficiency and stability. D-ALW nanoparticles with special kidney-targeting ability can ameliorate the nephritis in MRL/lpr mice, possibly through inhibiting pathogenic renal IgG deposition and fibrosis.

Short oral presentation session 13: SLE comorbidities

LSO-071 CORRELATION OF TRADITIONAL AND SLE RELATED RISK FACTORS WITH CAROTID INTIMA MEDIA THICKNESS AS EARLY MACES PREDICTOR IN SLE PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background SLE is linked to an elevated risk of MACEs. CVD remained the leading cause of death among SLE patients. Management of CVD risk in SLE patients cannot be applied as the general population and must be implemented as soon as SLE is recognised. Our meta-analysis aims to evaluate and provide evidence of the correlation between traditional and SLE-related disease risk factors and CIMT as an early predictor of MACEs in SLE patients

Methods Relevant literatures were obtained from CENTRAL, PubMed and Google Scholars. The primary outcome was correlation of traditional and SLE related risk factors with CIMT in SLE patients were presented as correlation coefficients (r). Random-effect model was used on the analysis in order to represent population better. Risk of bias was assessed by using funnel plot

Results Out of 1657 studies found, six full-text studies met the inclusion criteria. Total of 615 patients from six studies were included. Our meta-analysis showed traditional risk factors age [r = 0.45, 95% CI (0.35, 0.56), p < 0.0001] and BMI [r = 0.29, 95% CI (0.16, 0.42), p < 0.0001] are correlated with CIMT. SLE related disease like SLE duration [r = 0.21, 95% CI (0.05, 0.37), p = 0.01], SLICC score [r = 0.27, 95% CI (0.12, 0.42), p = 0.0005], and CRP [r = 0.25, 95% CI (0.02, 0.48), p = 0.03] also significantly correlated with CIMT based on random effect model

Conclusions We found significant correlation between CIMT and age, BMI, SLE duration, SLICC score, and CRP as a predictor of MACEs in SLE. By pointing out the role of CIMT, we hope that future guidelines will place more emphasis on them. SLE patients should be viewed as high-risk individuals and risk factors should be aggressively modified as soon as SLE is recognised