Conclusion: Our study proposes that persistent aPLs-positive women with APO have three major clinical subtypes. Cluster 1 contains patients with a predisposition to SLE. Patients in cluster 2 majorly present PI combined with aPLs-IgG subtype, while cluster 3 presents with APS phenotype. EM with aPLs-IgM subtype. The individualized risk stratification assessment of these patients will help to develop different treatment strategies and improve the pregnancy outcome.

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POS1510 IDENTIFICATION OF THE MINIMAL REQUIRED DURATION OF RENAL-EXTRARENAL REMISSION ASSOCIATED WITH REDUCED RISK OF CHRONIC KIDNEY DISEASE AND OF DAMAGE ACCRUAL IN LUPUS NEPHRITIS

Keywords: Remission, Treat to target, Systemic lupus erythematosus

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Background: There is an increasing need for data exploring the effect of remission on kidney-oriented outcomes and terminal organ damage in patients with lupus nephritis (LN).

Objectives: To investigate the effects of renal-extrarenal clinical remission on chronic kidney disease (CKD) development and organ damage accrual in patients with LN.

Methods: We performed a multicentric retrospective cohort study on biopsy-proven LN patients with at least five years follow-up, in whom we assessed i) the minimum duration of remission ability to prevent CKD (serum creatinine >1.0mg/dl with eGFR <60m/min/1.73 m2 and inactive urinary sediment, confirmed by at least three determinations for at least 3 months); ii) the impact of remission on organ damage increase, evaluated by the SLICC Damage Index (SDI). Renal-extrarenal clinical remission was defined as serum creatinine <1mg/dl, eGFR>60m/min/1.73m2, proteinuria <0.5g/24h and cSLEDAI=0, lasting for at least one year. Cox regression was used to test the effect of different durations of remission on CKD and SDI accrual. The minimum duration of remission needed to prevent CKD was estimated through Kaplan-Meier curves. The potential relationship between renal-extrarenal clinical remission and SDI accrual was assessed by Spearman correlation between percentage of follow-up spent in remission and annual increase in SDI.

Results: 303 LN patients were included (females 86.5%, mean follow-up 14.8 (9.8-22.0) years). 84.8% achieved renal-extrarenal clinical remission that persisted for 8.70 (5.40-13.30) years. Overall, 17.6% patients developed CKD after a median of 14.1 (8.9-20.9) years. Patients achieving remission developed CKD significantly less frequently than patients never achieving remission (12.1% vs. 56.6%, p<0.001). Among patients with at least 10-year follow-up (n=224), a remission duration of at least 2 years protected from CKD development (p<0.001), yet the best CKD-free survival was obtained in patients reaching at least 3 years of remission (HR=0.34 (1.39-3.98) p<0.001) (Figure 1). Considering the whole population, the increase in SDI from baseline to the last observation was significantly higher in patients who had never achieved remission (median: 2[1-3] vs. 1[0-1]; p= 0.047). We observed that the higher the percentage of follow-up spent in remission, the lower the yearly SDI accrual (r=-0.324, p<0.001). Among patients achieving remission, the risk of any SDI increase was significantly lower in patients maintaining at least 3 years on remission vs. shorter durations (HR95% CI 0.54 (0.31-0.54), p=0.03).

Conclusion: Renal-extrarenal clinical remission is an achievable treatment target which protects against CKD development and SDI increase in patients with LN. At least 3 years of renal-extrarenal clinical remission confers significant protection against renal function deterioration and chronic damage, hence emerging as a desirable therapeutic target for LN.

Figure 1. CKD-free survival according to years spent in remission (Kaplan-Meier method; Mantel-Cox for comparison)

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POS1511 PERSISTENCE OF RENAL-EXTRARENAL REMISSION AND EFFECT ON RISK OF SLE FLARES AND OF CHRONIC KIDNEY DISEASE IN PATIENTS WITH LUPUS NEPHRITIS

Keywords: Systemic lupus erythematosus, Kidneys, Remission

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Background: How renal and extrarenal remission affects risk of flares and of chronic kidney damage (CKD) development in systemic lupus erythematosus (SLE) patients with active lupus nephritis (LN) was not clearly disentangled.

Objectives: To investigate the effect of maintained or interrupted renal-extrarenal clinical remission on the risk of SLE flares and CKD development in LN.

Methods: We conducted a retrospective cohort study on biopsy-proven LN patients in whom we evaluated i) the probability of achieving and maintaining renal-extrarenal clinical remission; ii) the impact of renal-extrarenal clinical remission on the risk of SLE flares and CKD development (defined as serum creatinine >1.0mg/dl with eGFR <60m/min/1.73 m2 and inactive urinary sediment, confirmed by at least three determinations for at least 3 months); iii) the predictors of renal-extrarenal clinical remission. Renal-extrarenal clinical remission was defined as serum creatinine <1mg/dl, eGFR>60m/min/1.73m2, proteinuria <0.5g/24h and cSLEDAI=0 lasting for at least one year. Time to renal-extrarenal clinical remission, the likelihood of its maintenance and the risk of SLE flares were estimated through Cox regression.

Results: 303 patients were included in the study. Over a 14.8-year-follow-up, 46 patients never achieved while 257 achieved remission after a median of 14.4 (0.69-3.58) years from initial therapy for LN. In 142 out of 257 patients, remission ended after a median of 3.6 (2.30-5.90) years due to SLE flares. 115 patients maintained an uninterrupted remission for 9.5 (5.8-14.5) years. At multivariate analysis, age >40 years (OR95%CI: 1.017 (1.005-1.028); p=0.004), hydroxychloroquine use (OR95%CI:1.384 (1.109-1.661); p=0.021) and absence of arterial hypertension (OR95%CI: 0.699 (0.425-0.975); p= 0.011) were independent predictors of renal-extrarenal clinical remission. CKD occurred in 56% of patients who had never reached renal-extrarenal clinical remission, in 21.8% of those who lost remission due to SLE flares and in none of those who maintained remission permanently (p<0.0001). Five, 10 and 15 years after the beginning of...