Background and aims To observe the effects of long term hydroxychloroquine treatment on blood lipid and left ventricular function of systemic lupus erythematosus (SLE) patients.

Methods 72 patients with SLE were randomly divided into two groups: Hydroxychloroquine treatment group (n=36) and non-hydroxychloroquine group (n=36). The level of blood lipid, left ventricular end-diastolic diameter (LVEDD), left ventricular end-systolic diametef (LVESD), interventricular septum thickness (IVST), left ventricular posterior wall thickness (LVPWT), fractional shortening rate (FS), left ventricular ejection fraction (LVEF), E/A were measured before, 6 month, 12 month and 2 years after the treatment.

Results The long term applies of hydroxychloroquine can bring statistically different of TC, TG, LDL and HDL to SLE patients. LVEDD, LVPWT and E/A were statistically different (p<0.05) before and after hydroxychloroquine were used.

Conclusions The long term hydroxychloroquine can improve the lipidic metabolism and left ventricular function in SLE patients.

Genetics, epigenetics, omics, biomarkers and personalised medicine in SLE and autoimmunity

Background and aims To assess the usefulness of serum ferritin levels as a marker of disease activity and organ involvement in childhood systemic lupus erythematosus (cSLE) and to screen children with SLE for subclinical macrophage activation syndrome.

Methods Consecutive children who met the criteria of SLICC were enrolled. All patients interviewed and assessed for disease activity using SLE disease activity index (SLEDAI). Biochemical and serological tests including serum ferritin level and markers of disease activity and macrophage activation syndrome (MAS) including LDH, AST, triglyceride and CD25 were measured by standard laboratory procedure.

Results A total of 29 (24 female) SLE patients with a mean age of 10.9 ± 2.9 years and mean of disease duration of 4 ± 2.4 years were included. The most frequent manifestations were musculoskeletal in 25 patients followed by haematological in 13 patients. Twenty patients had active disease (SLEDAI >4). Serum ferritin level was correlated significantly with SLEDAI (p<0.0001) and markers of MAS (LDH, AST, triglyceride and CD25) and negative correlation with fibrinogen (p 0.02). Interestingly, serum ferritin was weakly correlated with ESR but no correlation with CRP and proteinuria. Two patients confirmed to have MAS.

Conclusions Serum ferritin is a simple and probably a good marker of disease activity and screening for MAS in cSLE.

UTILITY OF SERUM FERRITIN AS A MARKER OF DISEASE ACTIVITY IN CHILDHOOD SYSTEMIC LUPUS ERYTHEMATOSUS

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PEARL: PATHWAY EXPLORATION AND ANALYSIS IN RENAL DISEASE IN THE ACCELERATING MEDICINE PARTNERSHIP (AMP) LUPUS NETWORK

Background and aims Despite treatments, a substantial proportion of lupus nephritis (LN) patients progress to end stage renal disease and death. Detailed transcriptomic analyses of LN kidneys may identify new therapeutic targets. Our goal is to demonstrate the feasibility of single cell and low-input transcriptomic analyses of LN kidney and urine cells.

Methods Cells from urine and renal biopsies performed for clinical diagnosis from inform-consented patients (1 class III, 3 class IV-V, 1 class V) and 1 control (healthy part of tumour nephrectomy) were isolated, frozen, sorted and analysed by RNAseq.

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