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CHARACTERISTICS OF MYOSITIS IN CHINESE PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background This article aims to analyze the clinical characteristics of myositis in Chinese patients with systemic lupus erythematosus (SLE).

Methods From January 2013 to April 2018, patients with myositis were included from the SLE database of Shanghai Ren Ji Hospital, South Campus. Myositis was diagnosed based on clinical symptoms, electromyography, magnetic resonance imaging, myositis antibody profile or muscle biopsy. Clinical and laboratory features at the diagnosis of myositis were collected. In this retrospective study, patients without myositis at the same time were selected as 1:1 by matching gender and age. Univariable and multivariable analysis were performed.

Results Of 1401 SLE patients, 21 (1.5%) had myositis. The mean follow-up of these patients was 3.3 ± 3.3 years. Cardiac involvement was observed in three patients. 52.4% (n=11) patients had the data of myositis antibody profile, of which four patients were anti-Ku positive, two were anti-Ro-52 positive, one was anti-OJ positive, one was anti-Jo-1 and anti-OJ double positive, one was SAE1 weakly positive, and two were negative. All the patients received at least 1 mg/kg corticosteroids. The creatine kinase level of most patients (76.2%) fell back to normal within six months. One patient was refractory to many immunosuppressive agents including methotrexate, tacrolimus, rituximab and tocilizumab. Three patients died during follow-up. One of them deceased due to uncontrolled myositis with the involvement of myocardium and the other two died of invasive infections including septic shock and brain abscess.

Compared to matched SLE patients without myositis, they had more Raynauds phenomenon, interstitial lung diseases, and lupus nephritis, as well as lower creatinine level, lower disease activity and higher positive rate of anti-RNP ($p < 0.05$). Upon multivariate logistic regression analysis, Raynauds phenomenon (OR 5.69 1.10~29.51) and lupus nephritis (OR 0.19, 0.37~0.99) were positively and negatively associated with myositis in SLE patients respectively.

Conclusions The prevalence of myositis was low in SLE patients in China. Myositis antibody profile is helpful for the differential diagnosis. Anti-Ku is the most common in these patients. Compared to patients without myositis, they were more likely to have raynauds phenomenon, but less likely to have kidney involvement.

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NEW ORGAN INVOLVEMENT DEVELOPMENT DURING FOLLOW-UP OF PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IN CHINA: A MULTI-CENTER COHORT STUDY FROM CSTAR REGISTRY

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Background Specific organ involvements have been proposed to be closely associated with further organ damage and deaths. However, no study ever demonstrated the rate of new organ involvement development, especially in China. This study aimed to study the characteristics of new organ involvements based on CSTAR (Chinese SLE Treatment and Research group) registry cohort.

Methods Patients were enrolled from April 2009 to February 2010, and were followed up regularly at clinic. Baseline data were collected at entry, including demography, clinical manifestations, activity (SLEDAI-2K), organ involvements, organ damages (SLIC/Damage Index). The type and appearing time of new developed organ involvements, and new organ damages were recorded. Logistic regression model was adopted to study relationship between new organ involvements with new damage and deaths.

Results A total of 687 patients were finally included for analysis. The proportion of accumulated organ involvements in patients without relevant organ involvements were 8.91% for lupus nephritis (LN), 2.25% for hematologic involvement (HEMA), 3.13% for neuropsychiatric involvements (NEURO), 1.38% for interstitial lung disease (ILD) and 0.59% for pulmonary arterial hypertension (PAH). Logistic regression analysis showed that new developed LN [OR 3.233, $p = 0.004$], NEURO [OR 5.314, $p < 0.001$] and ILD [OR 12.739, $p < 0.001$] were associated with more damage accrual and new developed PAH [OR 26.078, $p = 0.001$] was associated with more deaths.

Conclusions Lupus nephritis, hematologic involvement and neuropsychiatric lupus were the most frequently developed new organ involvements for Chinese SLE patients. Along with interstitial lung disease and pulmonary arterial hypertension, they were closely related to damage accumulation and mortality. Therefore, we should keep an eye on them during follow-up and seek for potential strategies to prevent for new organ involvement development.

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Abstract 247 Figure 1 Accumulated new organ involvements during follow-up