ANTI-PHOSPHOLIPID ANTIBODIES IN LUPUS MYOCARDITIS

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Background: Myocarditis in lupus is an uncommon clinical manifestation, with unknown pathogenesis.1 Suggested etiologies include immune-complexes, cell mediated damage and anti-phospholipid antibodies. The latter may affect the myocardial function microthrombi in cardiac vessels or direct cytotoxicity.2 Previously, small studies have suggested an association between antiphospholipid tests as myocarditis. Objectives: To evaluate whether myocarditis in SLE is associated with antiphospholipid positivity.

Methods: This was a cross-sectional study in which patients fulfilling SLICC criteria 2012 for SLE or Alarcon Segovia criteria for MCTD were included after consent. Patients were recruited as 'Cases' if they had myocarditis/cardiomypathy defined by poor generalised contractility and/or dilation of all chambers nador reduced ejection fraction on echocardiography without any obvious cause. Those with regional wall motion abnormalities or pulmonary artery hypertension (moderate or severe) were excluded. Controls were age (±2.5 years) and disease duration (±25%) matched patients of SLE without any abnormality on echocardiography. Serum titers of anticardiolipin antibodies and b2 GP1 (both IgG and IGM) were measured by commercial ELISA kit. Lupus anticoagulant was detected by Dilute Russell Viper Venom Test (dRVVT) with both screening (positive at 1.2) on doubly centrifuged, platelet poor plasma. Proportions were compared between groups. (p=0.3).

Results: A total of 51 patients were recruited in this study that included 21 cases and 30 controls. All had SLE, except 1 case was of MCTD (among cases). There was no difference in mean (±SD) age (33.3±14.7, 32.8±12.4 years, p=0.9) or median (interquartile range) disease duration (30, 845 months, p=0.6) between groups. Mean ejection fraction of Cases was 31.7% (±9.3%) while that of Controls was 55.7% (±1.7%) (p<0.001). There were no significant differences between proportion of Cases (42.9%) and Controls (40%) with positive anti-phospholipid tests (p=0.7). The majority had positive anticardiolipin antibodies, followed by b2 GP1, and lupus anticoagulant was positive in only two in each group (figure 1). Among 9 Cases positive at baseline, 6 patients could be re-tested (2 expired and 1 was lost), out of which 3 had persistent positivity. Out of 12 Controls positive once, 8 could be retested (1 expired and 3 were lost), with 1 being persistently positive. There was no significant difference in persistent positivity between groups. (p=0.3).

Conclusions: This study did not find any significant association between anti-phospholipid antibodies (single time or persistent) with cases of lupus myocarditis.

REFERENCES:

Disclosure of Interest: None declared


DAMAGE ACCRUAL IN SYSTEMIC LUPUS ERYTHEMATOSUS NOT RELATED TO SUSTAINED HYPOCOMPONENTEMIA

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Background: Hypocomplementemia (HC) represents a significant clinical finding in Systemic Lupus Erythematosus (SLE) as it suggests complement activation by immune-complexes, which can initiate inflammation. As disease activity contributes to damage accrual in SLE patients, we investigated the role of HC as a predictor of subsequent organ damage.

Objectives: Investigate the relationship between HC, disease flares and organ damage accrual in SLE patients.

Methods: Longitudinal cohort study of 102 SLE patients with HC defined as a C3 and/or C4 levels below cut-off during median follow-up of 13.8 years (IQR 7.0, 23.1). Disease activity was scored by time averaged SLEDAl-2K without the serological components (cWAS), flares by SELENA-SLEDAI and damage accrual by SLICC-DI. Analysis included comparisons between normocomplementemic (NC) patients, and multivariate logistic and Cox regression modelling determined the predictive value of HC on organ damage.

Results: HC occurred in 2/3 of patients overall and was more often due to low C3 (97%) than low C4 (54%). HC patients had a higher prevalence of anti-dsDNA Ab (72% vs 36%, p<0.001) and aPL (74% vs 40%, p<0.01), but HC concurred with anti-dsDNA presence in only 36% of cases. HC patients had higher maximum cWAS scores, but the time adjusted cWAS (1.9 vs 1.2, p=0.9) and the frequency and risk of overall damage accrual (SDI=0, n=60) associated with HC was similar as for NC patients (OR 1.08, p>0.20).

Conclusions: Low complement levels occur in 2/3 of SLE patients but have negligible impact on time averaged disease activity and damage accrual in SLE. Discrepancies between low C3, low C4 and anti-dsDNA Ab occurrence indicate that in SLE alternative complement activation occurs frequently and requires further translational study.

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HAEMATOLOGICAL INVOLVEMENT OF PRIMARY SJÖGREN’S SYNDROME PATIENTS IN A SINGLE CENTRE STUDY OF 232 CHINESE CASES

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Background: Primary Sjögren’s syndrome (pSS) is a common systemic autoimmune disease, characterised by lymphocytic infiltration of the exocrine glands and different extraglandular manifestations. Besides haematological disorders are prevalent but not well recognised in patients with pSS.

Objectives: Our aim is to determine the existence of cytopenia at diagnosis or during follow-up of our pSS patients as well as the associated factors.

Methods: A cohort of pSS patients that had been followed-up in the Department of Rheumatology, Tongji hospital of Tongji University, from 2011 to 2017 was retrospectively assessed. Clinical and laboratory findings about the patients were recorded.

Results: Out of 232 pSS patients composing the cohort, cytopenia was already present in 55.60% (n=129) at the time of diagnosis. Anaemia was detected in 30.17% (n=70), leucopenia in 37.5% (n=87), neutropenia in 22.41% (n=52), and thrombocytopenia in 26.72% (n=62) of patients. The proportion of patients with cumulative cytopenia was 6.47% (n=15). Cumulative cytopenia was disease-related in 5.60% (n=13) and medication-related in 0.86% (n=2) of the patients. In patients with cytopenia at the time of diagnosis, erythrocyte sedimentation rates (ESR) were higher (p=0.001), C3 and C4 hypocomplementemia was more prevalent (p=0.001, p=0.060), and they were positive for anti-SSB at a greater propor tion (p=0.059). Hypogammaglobulinaemia, C3 hypocomplementemia, positive anti-SSA and anti-SSB might increase the incidence of anaemia in pSS, with OR of 2.700, 2.042, 1.537 and 1.901, respectively. In addition, logistic regression analysis suggest C3 hypocomplementemia might be associated with different types Leukopenia(p=0.01), while abnormal Transaminase and C4 hypocomplementemia are independent risk factors for thrombocytopenia with a OR of 4.171 (1.516–11.480) and 5.697 (1.662–19.523). Cytopenia in pSS patients not either at diagnosis or during follow-up, was always easy to be ameliorated, but several cases led to unfavourable outcome.

Disclosure of Interest: None declared

Conclusions: The most common haematological disorders in pSS patients are leukopenia, and cytopenia in pSS patients might be related to disease activity.

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AB0639  CLINICAL SIGNIFICANCE OF ESR IN CHINESE PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS
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Background: During the process of systemic lupus erythematosus (SLE), disease flare and infection are often accompanied by each other and always pose a major challenge to clinical treatments. Although erythrocyte sedimentation rate (ESR) has been tested in SLE patients for many years, there is still a lack of consensus on its value.

Objectives: To validate the value of ESR in Chinese SLE patients at the time of their first admission and to determine whether it is related to a poor outcome.

Methods: Clinical data of patients with ESR tested on their first admission were extracted from our SLE database; (Feng et al. PLoS ONE 2016;11(12): e0168919) and analysed for the relation with disease activity (SLEDAI), infection status, organ involvements and survival situation. To determine the risk of ESR for long-term mortality, cumulative survival was illustrated with the Kaplan-Meier plot and factors were compared using the Log-rank test.

Results: Totally 1225 patients were included in this study, of which 92.2% were female and the median age at admission was 34.3 years. The most often seen organ involvements were mucocutaneous (66.4%), musculoskeletal (55.0%), renal (51.7%) and hematologic (45.2%) respectively. ESR levels were correlated with SLEDAI scores (r=0.145, p=0.000), but not elevated in patients with infections. Patients with cardiopulmonary, renal or hematologic impairments had higher ESR levels (all p<0.05).

Subgroup analysis showed that serositis, renal insufficiency and anaemia might be responsible for the respective organ involvement. The ten year survival rates for patients with elevated ESR was 80.57%, lower that of 88.62% for patients with normal ESR (p<0.01) (figure 1).

Conclusions: High ESR levels in SLE patients are associated with active disease and specific organ involvements, and may predict a poor prognosis. It should be checked routinely for the monitoring of SLE patients.

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Abstract AB0639 – Figure 1. Cumulative survival rates for patients with elevated or normal ESR at first admission