AB1351 SYSTEMIC RHEUMATIC DISEASES AND CUMULATIVE CHILDHOOD STRESS

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Background: It has been suggested that the adaptive stress response may be disrupted by life adverse events. Childhood maltreatment has been linked to increased inflammatory markers such as C reactive protein levels and increased prevalence of autoimmune disorders in adulthood. The mechanisms that underlie such association are not clear but it has been postulated that a dysregulated hypothalamic-pituitary-adrenal axis, accelerated immune cell ageing and altered immune cell gene expression pattern may play a role.

Objectives: To study the prevalence of adverse childhood experiences (ACEs) in a sample of patients with systemic lupus erythematosus (SLE), spondyloarthritis (SpA), scleroderma (SSc) and rheumatoid arthritis (RA) comparing them with controls.

Methods: After approval from the local Committee of Ethics in Research, we interviewed 315 patients with rheumatic disease (100 SLE; 40 SSc; 60 SpA; 115 RA) and 272 controls applying the ACEs Study questionnaire with questions on childhood abuse, negligence, domestic violence and household dysfunctions. This questionnaire score ranges from zero (best result) to 8 (worst scenario). Controls were paired for age ($p=0.39$), gender ($p=0.64$), monetary income ($p=0.20$), religiosity ($p=0.19$) and years of formal education ($p=0.62$).

Results: In the whole group of rheumatic patients the median number of ACEs was 3 (IQR 2.5–5); in the controls was 3 (IQR=2–5) with $p=0.45$. About 201/315 (63.8%) of patients had ACEs score ≥ 3 ; the controls had 163/272 (59.9%) with $p=0.31$. In the SLE group 64/100 (64%) of the patients have had at least 3 ACEs; in SSc group 24/40 (60%); in SpA 36/60 (60%); in RA 77/115 (66.9%) and in controls 163/272 (59.9%). Studying the prevalence of ACEs according to the rheumatic disease it was found that patients did not differ from controls in SLE ($p=0.47$ for ACEs scale and 0.87 in the number of ACEs ≥ 3); in SSc ($p=0.67$ for ACEs scale and 0.72 in the number of ACEs ≥ 3); in SpA ($p=0.92$ for ACEs scale and 0.21 in the number of ACEs ≥ 3); neither in RA ($p=0.06$ for ACEs scale and 0.14 in the number of ACEs ≥ 3).

Conclusions: In this sample, it was not possible to associate the occurrence of ACEs with the appearance of rheumatic diseases in adulthood.

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AB1352 EVALUATION OF MRI RAMRIS SCORE AND CLINICAL RESPONSE IN PATIENTS WITH ACPA POSITIVE UNDIFFERENTIATED ARTHRITIS TREATED WITH INFILIXIMAB VERSUS PLACEBO

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Background: Patients (Pts) with Undifferentiated Arthritis (UA), positive for ACPA antibodies are at high risk of progressing to Rheumatoid Arthritis (RA). TNF play a key role in the pathogenesis of RA. Very early treatment with the combination of Methotrexate and Infliximab (IFX) in a small cohort of UA showed a benefit in clinical symptoms and reduction of MRI evidence of synovitis and erosions.

Objectives: To assess whether IFX as a monotherapy is more effective than placebo (Pbo) in UA pts positive for ACPA. Here we evaluate the clinical response, the MRI RAMRIS score MRI and the risk to develop RA.

Methods: This was a randomised, double-blind, Pbo-controlled, two-arm parallel design study of 12 months to the primary endpoint (proportion of pts who developed RA by ARA 2007 criteria). Pts with UA and symptomatic clinical synovitis of ≥ 1 joints and ACPA positivity were randomised 1:1 to IFX (3 mg/kg) or Pbo at week

0, 2, 6, 14 and 22, after which treatment was terminated. NSAIDs/stable low-dose oral corticosteroid (≤ 5 mg/day prednisone or equivalent) were permitted but no DMARDs.

Disease activity measures (DAS28-CRP) were evaluated at BL, Wks 2 and 4, and every 4 wks until Wk 52. OMERACT RAMRIS scores (components: erosion, osteitis, synovitis, tenosynovitis) and peritendinitis scores were evaluated at BL and Mth 4. Pts who developed RA at any time were discontinued and could receive standard of care.

Results: 28 pts were randomised (mean age: 48 ± 12 years; mean duration of arthritis: 0.34 ± 0.53 year; mean CRP level: 1.67 ± 2.23 mg/dL). By 1 year, 11/15 (73%) pts treated with IFX developed RA vs 10/15 (67%) Pbo-treated pts (Kaplan Meier, log rank $p=0.868$). At wk 14, ACR 20, 50, 70 responses were observed respectively in 71.4%, 42.9%, 28.6% pts treated with IFX vs 21.4%, 0%, 0% treated with Pbo. Remission DAS28CRP rate was observed in 50% in the IFX group vs 21.4% in the Pbo group. Pts in the IFX arm experienced significantly greater improvements in RAMRIS score versus pbo at wk 16 (see graph). No severe safety issues were observed except one case of severe hepatotoxicity induced by Isoniazid.

Abstract AB1352 – Figure 1

Conclusions: In this small randomised cohort of UA ACPA positive pts, we noted a significant difference in the RAMRIS scoring after 4 months in the IFX group vs PBo. This is the first study to report a worsening of disease activity based on the RAMRIS scores in the PBo group but changes were minimal and not observed in all pts. IFX has higher efficacy but did not prevent the progression to definite RA. Further analyses are ongoing to determine MRI predictors for severity.

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AB1353 HOW MUCH TEMPERATURE CAN TRULY IMPACT ON RAYNAUD'S PHENOMENON SECONDARY TO SYSTEMIC SCLEROSIS?

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Background: Raynaud's phenomenon (RP) is considered a prominent feature of systemic sclerosis (SSc).¹ SSc-RP is related to considerable disease-related morbidity including pain, impaired hand function, reduced social participation, body image dissatisfaction, increased reliance on others and reduced quality of life.² In most cases RP is triggered by low environmental temperature or sudden variation of it. According to EULAR recommendations, intravenous (IV) iloprost (ILO) should be used to control severe RP, after oral therapy failure.³ Unfortunately no validated IV ILO regimens have been so far published.

Objectives: Aim of our study was to estimate the impact of environmental temperature on RP in patients with SSc treated with two different IV ILO regimens and in patients not treated with IV ILO.

Methods: We conducted a monocentric, prospective, pragmatic and non-randomised study, after the local ethical committee approval, between September 2016 and February 2017. In the present study, we enrolled all consecutive SSc patients not requiring therapy with IV ILO (group A), or requiring therapy with IV ILO once monthly (group B) or therapy with IV ILO for 5 consecutive days every 3 months