AB1346

THE CLINICAL COURSE OF PATIENTS WITH BIOLOGICS-TREATED RHEUMATOID ARTHRITIS COMPLICATED WITH NONTUBERCULOUS MYCOBACTERIAL LUNG INFECTION

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Background: For now, it has been difficult for rheumatoid arthritis (RA) patients with lung nontuberculous mycobacterial infection (LNTMI) to achieve therapeutic goal of RA because of insufficient treatment considering the risk of NTM deterioration by immunosuppressive therapy. Although use of biologics in RA with LNTMI is not recommended based on results of an epidemiological study from USA,^{1,2} prognosis analysis considering confounding factors, including the species of NTM, remains to be studied. On the other hand, some Japanese case series of RA with LNTMI after biological treatment had shown the acceptable outcomes.³

Objectives: This study was performed in order to investigate clinical course of patients with biologics-treated RA complicated with LNTMI.

Methods: This study is descriptive study. All the patients diagnosed with RA and proved the positivity of acid fasting culture were extracted. We retrospectively collected the clinical data between 1^{Jan 2011} and 31^{Mar 2017} including age, sex, date of RA onset, onset of NTM infection, species of NTM organisms, biologic drugs used, the clinical course, the findings of high resolution computed tomography (HRCT) and the outcome after commencement of biologics, at Tokyo Metropolitan Tama Medical Centre. The diagnosis of LNTMI was made by satisfying both of the two following conditions;¹ either positivity of bronchoalveolar lavage fluid culture at least once or sputum culture twice or more and² the compatible findings with LNTMI on HRCT.

Results: During investigation period, 13 LNTMI-RA patients were administered biologics, of which 76.9% were female. Their mean age at NTM diagnosis was 71 years old. The duration between the RA diagnosis and the occurrence of LNTMI ranged widely from 1 to 40 years. The species of NTM were *Mycobacterium avium* (12 cases) and *M. intracellulare* (1 case), which did not include rapid growing species. Twelve cases had treated with glucocorticoid. Of 10 cases who underwent biologics therapy after NTM diagnosis, 6 had continued biologics after diagnosis of LNTMI. All the 4 of the 13 cases who first received biologics after diagnosis of LNTMI were treated with abatacept, which improved their RA activity and did not exacerbate LNTMI. Of the 13, there were no patients requiring home oxygen therapy. During the average observational period after LNTMI of 3.6 years (0.8–10.3 years), 10 of the 13 were alive and 3 died, whose causes of death were not directly associated with LNTMI. When each period upon every biologics was independently calculated, the Kaplan-Meier survival curve illustrated the tendency of survival difference of between LNTMI-RA cases treated with non-TNF inhibitors and those with TNF inhibitors (figure 1).

Abstract AB1346 – Figure 1

Conclusions: Even when patients with RA have LNTMI of not rapid growing species, RA may be safely and sufficiently treated by abatacept with careful monitoring of the respiratory condition, which may improve their joint prognosis.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2360

AB1347

ELEVATED NESFATIN-1 LEVELS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Recent studies indicate that adipokines affect tissues and cells involved in rheumatoid arthritis (RA), including synovium, cartilage, bone, and immune cells.^{1,2,3} Nesfatin-1, a member of the adipokine family, was identified in 2006 as a potent anorexigenic peptide involved in the regulation of homeostatic feeding. Nesfatin-1 concentrations in serum and synovial fluid were closely correlated with disease occurrence and severity of knee osteoarthritis.⁴ We did not found any data about Nesfatin-1 levels in sera of rheumatoid arthritis (RA) patients.

Objectives: To investigate the serum nesfatin-1 level in RA patients.

Methods: At baseline we measured Nesfatin-1 level in sera of 110 RA patients (mean age 54.07±11.32; hereinafter M±Std.dev.) and 60 healthy controls (52.09±14.12). The diagnosis of RA was set according to the ACR/^{EULAR Classification Criteria for RA (2010)}. Serum C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) were measured to assess inflammation severity. Nesfatin-1 in serum was determined by enzyme-linked immunosorbent assay (RaiBiotech, cat№ EIA-NESF).

Results: We revealed that nesfatin-1 levels in RA patients was equal 50.49±34.05 ng/ml and was higher than of healthy controls – 31.61±3.17 ng/ml. We divided 120 RA patients into 2 subgroups – 1st (n=44) with normal nesfatin-1 concentration in sera, and 2nd (n=66) – with increased nesfatin-1 level. We noted that 2nd group's patients had higher DAS28 activity index, functional joints disability, higher levels CRP and ESR.

Conclusions: The present study shows that RA patients have increased serum Nesfatin-1 levels which strongly correlated with systemic inflammation and functional impairment in RA. These data sustained the pathogenic role of Nesfatin-1 in RA progression.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4459

AB1348

PREVALENCE, GENDER-PREDOMINANCE AND CLINICAL PRESENTATION OF BEHÇET'S DISEASE IN EGYPT: PRELIMINARY FINDINGS FROM A MULTICENTER NATIONWIDE STUDY

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Background: Behçet's disease is a chronic, relapsing multisystemic vasculitis that is common in the Mediterranean basin region with a diverse spectrum of clinical manifestations. A previous single-centre study from Alexandria conducted 20 years ago reported a prevalence of 7.6/100.000 population and a M:F ratio of 5.4:1.

Objectives: The aim of this multicenter study was to present the prevalence and pattern of Behçet's disease (BD) in adult Egyptian patients.

Methods: This study included 1098 BD patients from 14 highly specialised centres over Egypt during 2017. The demographic, clinical characteristics, laboratory findings, BD current activity form (BDCAF) and medications received were reported.

Results: The mean age of the patients was 36.3±10.2 years (16–73 years), disease duration was 6.7±5.2 years and they were 776 males and 322 females (2.4:1) and was 1.9:1 from Alexandria. Their mean age at disease onset was 29.8±8.7 years. 24.9% were diabetic and 30.7% hypertensive. The frequency of presenting cases was highest from Alexandria (41.3%) followed by Cairo (35.3%), Beni-Suef (6.4%), Assuit (6.1%), Sharkia (3.9%), Fayoum (3.2%), Minia (2.7%) and 1.1% from Ismailia. The total prevalence from those 8 major cities after adjusting for adults according to the 2017 population consensus was 4.35/100.000 inhabitants; 13.76 for Alexandria, 6.3 for Cairo and the highest prevalence in upper Egypt from Beni-Suef was 3.48 and the least from Minia (0.85). The prevalence from Sharkia was 0.93, Fayoum 1.51 and was 1.41 from Ismailia. All patients had oral ulcers while genital ulcers were present in 80%. The eyes were involved in 78.9%, cutaneous manifestations were present in 59.8%, arthritis in 34.7%, neuropsychiatric manifestations in 13.9%, gastrointestinal tract involvement in 11.5% and deep venous thrombosis in 23.1%. Their mean BDCAF was 4.6±4.6. The mean erythrocyte sedimentation rate was 29.1±19.9 mm/1sthr, C-reactive protein 11.3±15.2 mg/dl, haemoglobin content 13.3±6 g/dl, total leucocytic count 8.6±14.5 × 10³/mm³, platelets 262.6±76.9 × 10³/mm³ and serum uric acid 4.8±1.6 mg/dl. 90.7% were receiving steroids, 81.1% were receiving colchicine, while only 8.1% were receiving biologic therapy.

Conclusions: The prevalence of BD in Egypt is high and higher in Alexandria than previously reported. The male-to-female ratio is lower than previously found being more in harmony with the globally reported ratios. The pattern of clinical presentation is unique for this country yet comparable to the universally stated frequencies.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4833

AB1349

SAFETY AND EFFECTIVENESS OF COSMETIC MINIMALLY INVASIVE PROCEDURES AMONG PATIENTS WITH SYSTEMIC AUTOIMMUNE DISEASE

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Background: Noninvasive or minimally invasive cosmetic dermatologic procedures are considered safe with low parentage of reported adverse events. However, reliable prevalence data regarding adverse event of such cosmetic procedures among patients with systemic autoimmune diseases are insufficient.

Objectives: To assess the occurrence of adverse events and disease exacerbation associated with noninvasive or minimally invasive cosmetic dermatologic procedures, including those involving hyaluronic acid fillers, botulinum toxins and laser application among patients with systemic autoimmune diseases.

Methods: Consecutive cases of patients suffering from autoimmune diseases and attending the rheumatology clinic for regular follow-ups, were asked about receiving cosmetic procedures during the last two years. Medical history, including clinical and laboratory signs of disease exacerbation after the date of the procedure, was retrospectively obtained from medical files of the patients included in the study. Patients were also asked about subjective disease exacerbation and local adverse events after the procedure.

Results: During the three months of study period, 148 patients were inquired. Nineteen patients (89% females) underwent 23 cosmetic procedures in total. Thirty-nine percent had Rheumatoid arthritis (RA), 39% had Ankylosing spondylitis (AS) and 22% had other systemic connective tissue disease. Sixty seven percent were treated by Disease-modifying antirheumatic drugs (DMARDs), 28% by Biologic treatment and 5% did not receive any specific treatment. All patients were in remission during the cosmetic procedures. Forty three and a half percent of patients underwent hyaluronic acid injection, 21.7% botulinum toxin injection, 21.7% laser application, 8.7% mesotherapy and 4.3% silicon injection. None of

the patients suffered from subjective disease exacerbation after the procedure. No changes in antibody titer and level of acute phase reactants (C-reactive protein and erythrocyte sedimentation rate) were noticed. Two patients (10.5%) experienced local oedema after filler injections. Both patients received Hydroxychloroquine treatment (one patient with RA and one with AS).

Conclusions: Our results suggest that noninvasive or minimally invasive cosmetic dermatologic procedures, including energy, neurotoxin, and filler procedures, may be safe among rheumatological patients, and do not cause autoimmune systemic disease exacerbation when performed in periods of remission. Hydroxychloroquine may predispose to a higher occurrence rate of local site injection adverse events. Further studies are desired to investigate this phenomena.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.1093

AB1350

IS THE RADIOGRAPHIC DAMAGE A RISK FACTOR FOR NEUROPATHIC PAIN IN RHEUMATOID ARTHRITIS?

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Background: Features suggestive of neuropathic pain (NP) have been described in Rheumatoid Arthritis (RA) patients. The structural damage assessed on radiographs is a direct consequence and reflection of cumulative of disease activity and its association with NP has not been studied in RA.

Objectives: To determine whether existence and intensity of NP is associated with radiographic damage in RA patients.

Methods: Cross-sectional study was performed with RA patients followed at our Rheumatology department. Patients with diagnosed neuropathy or non-RA risk factors for NP were excluded. Selected patients were evaluated in a medical visit. Two questionnaires were applied to assess NP: the Leeds Assessment of Neuropathic Symptoms (LANSS) and the painDETECT (PDQ). Wrist, hands and feet radiographic studies from the previous 12 months before were classified according to the modified van der Heijde Sharp's method by one trained reader, blinded for patient clinical variables and treatment allocation. Correlation studies (spearman coefficient analysis) and univariate and multivariate logistic regression were performed. Significance level was set as <0.05.

Results: Ninety one RA patients were included. Seventy (77%) were women, with a mean age of 55.6±10.8 years and median disease duration of 12 years;²⁻⁴¹ 84% patients were seropositive for Rheumatoid Factor and/or ACPA; 85 (93%) were treated with conventional synthetic Disease-Modifying Antirheumatic Drugs (DMARDs) and 41% with a biological DMARD (bDMARDs). The mean DAS28 4V CRP was 3.15±0.77 and the mean HAQ score was 1.04±0.6. The median joint erosion score (JE) was 28³⁻¹⁴³ and the median joint space narrowing (JN) was 46.¹⁰⁻¹³³ Forty-two (46%) patients had LANSS NP (≥12), 29% had a possible/likely NP in the PDQ (>12), and 13% had likely NP in the PDQ (>18). JN and global score (GS) had a negative weak correlation with LANSS (r=-0.21 and r=-0.25, respectively, p<0.05) and JN correlated with PDQ (r=-0.23, p=0.03). No significant correlations were observed with JE. Disease duration significantly correlated with all the radiographic scores (r=0.48 for GS, r=0.43 for JN, r=0.44 for JE, p<0.05) and negatively correlated with LANSS (r=-0.28, p=0.01). Lower median GS values were observed in LANSS positive group (62 vs 79, p=0.01). Patients under bDMARDs had significant higher median GS (80 vs 61, p=0.03) but also higher disease duration (14 vs 10, p=0.01). No statistically significant differences were observed for other variables. Disease duration was a negative predictor of LANSS NP (OR: 0.98, p=0.03). JN was inversely associated with LANSS NP (OR: 0.978, p=0.02) and remained significant after adjustments for bDMARDs treatment, but not for disease duration. JN was also a negative predictor of PDQ likely NP and remained significant after adjustment for bDMARDs (OR: 0.979, p=0.03), but not for disease duration.

Conclusions: In this cohort, JN score had a weak negative association with NP. Higher structural damage and disease duration do not seem to increase the risk of non-nociceptive RA pain. Further studies are needed to confirm these results.

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Disclosure of Interest: T. Rocha Grant/research support from: Portuguese Society of Rheumatology/Alfa Wassermann on May 2015, S. Pimenta: None declared, M. Bernardes: None declared, A. Bernardo: None declared, M. Barbosa: None declared, R. Lucas: None declared, L. Costa: None declared

DOI: 10.1136/annrheumdis-2018-eular.5653