AB0346

TREND OVER TIME OF AORTIC STIFFNESS IN RHEUMATOID ARTHRITIS PATIENTS AND ITS RELATION WITH CARDIOVASCULAR EVENTS

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Background: Ascending aorta has an increased stiffness (AoSI) in rheumatoid arthritis (RA) patients due to their chronic inflammatory status. We assessed prevalence and modification of AoSI during a follow up period and its prognostic role on cardiovascular events (CVE) in a large cohort of RA patients

Objectives: Prognostic role of AoSI and its modification over time on CVE.

Methods: We prospectively followed 146 RA patients without overt cardiac disease with periodic echocardiographic examination. Abnormally high AoSI was diagnosed if AoSI > 6.07% (95th percentile of the AoSI detected in our reference healthy population). AoSI was assessed at the level of the aortic root by two-dimensional guided M-mode evaluation as part of a thorough echocardiography performed in all patients. CVE information were collected during follow up

Results: Of our 146 RA patients, 89 had a normal AoSI at baseline, in the remaining 57 it was abnormally high. After a mean follow up of 27 months: among patients with normal baseline AoSI it stayed normal in 64 (6 to 5,6%) and in 25 raised to an abnormal high AoSI (from 3,7 to 11,9%); of the 57 patients with high baseline AoSI, 33 went back to normal values (9,4 to 3,1%) and in 24 it remained high. Of these 4 groups divided by AoSI trend over time the group with de novo high AoSI showed the highest prevalence of new CVE (33%), together with the group with persistent high AoSI (16%). Much lower prevalence was observed in the other two groups (persistent normal 5%, normalized at follow up 6%).

Figure 1

Conclusion: Abnormally high AoSI is common in RA patients, rapid increase through time or persistent high AoSI identify those patients that are more prone to develop CVE. On the contrary, patients that showed a normalization of AoSI demonstrated to have a similar low incidence of CVE as patients who ever had a normal AoSI.

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AB0347

CLINICAL RELEVANCE OF ANTI-CARBAMYLATED PROTEIN REBOUND: IS IT SAME AS CAUCASIANS IN ASIANS?

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Background: Recently, there was an interesting study demonstrating that anti-CarP was associated with more inflammation and higher baseline disease activity in French ESPOIR cohort [1]. However, all of the investigated patient cohorts have been Caucasian. However, considering the genes associated with RA are different in Caucasians and Asians, PTPN22 in Caucasians and PADI4 in Asians, and those genes contribute to the loss of tolerance and autoantibody production, clinical relevance of anti-CarP might be different in Asians.

Objectives: Therefore, we investigated the clinical significance of anti-CarP in Korean patients with early RA focused on initial presentations and treatment outcome.

Methods: The anti-CarP antibodies were analysed by commercial ELISA (Novateinbio, USA) in the Korean Intensive Management of Early Rheumatoid Arthritis cohort. All patients were DMARD-naïve RA patients with symptom duration less than 1 year. They were intensively treated by adjusting medications every 4 weeks, and treated to target as disease activity score (DAS)28 of < 2.6. Baseline clinical characteristics and disease outcomes were compared according to the presence of anti-CarP antibodies.

Results: A total of 128 patients were included, 67 patients (52.3%) were positive for anti-CarP antibody at presentation. After 2 years of treatment, proportion of anti-CarP positivity decreased to 38.1% (p=0.049), but titration did not change (6.87 to 4.45 ng/ml, p=0.074). Patients without anti-CarP antibody presented with more tender joint count (TJC) (7.3 vs. 5.2, p=0.055), swollen joint count (SJC) (4.1 vs. 2.6, p=0.019) and higher baseline physician global VAS (5.5 vs 4.7, p=0.005) than patients with anti-CarP antibody. Subgroup analysis with ACPA negative patients, patients without anti-CarP antibody showed more TJC (13.7 vs. 4.7, p=0.043), SJC (7.9 vs. 3.0, p=0.076), higher patient global VAS (5.9 vs. 3.7, p=0.044) and DAS28-ESR (6.1 vs. 4.7, p=0.051). After intensive treatment, there were no differences in remission rate and DAS28-ESR at 12, 24, and 36 months.

Conclusion: Interestingly, RA patients without anti-CarP antibody presented with more TJC/SJC than those with anti-CarP antibody in Korean patients. This finding is contrast to previous studies which were done with Caucasians. Further investigation is needed to conclude the clinical implications of anti-CarP.

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AB0348

PREVALENCE AND SAFETY OF BIOLOGIC THERAPY IN A CHILEAN COHORT OF RHEUMATOID ARTHRITIS PATIENT, A RETROSPECTIVE STUDY

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Background: Interstitial lung disease (ILD) is a common extra-articular condition in rheumatoid arthritis (RA). New-onset ILD or ILD worsening has also been reported as a possible consequence of biologic therapy. These associations are based on case reports. The present study evaluated ILD prevalence and exacerbation among users of abatacept (T-cell inhibitor), rituximab (B-cell inhibitor), and anti-TNFα agents in a cohort of adult RA patients.

Objectives: In the present study, we aimed to assess the safety of biologic therapy in patients with ILD associated to RA and patients without a history of ILD.

Methods: Data from RA patients beneficiaries of the Ley Ricarte Soto (LRS) program, at the Hospital Clínico de La Universidad de Chile, who received abatacept, rituximab, or anti-TNFα agents for at least a year, were reviewed.

Results: Seventy four patients were reviewed retrospectively between January 2016 and December 2018 (55 female; mean disease duration, 7 years; mean age, 55 years). Mean (SD) DAS₂₈ ESR was 6.9 (±0.1) previously to initiate therapy. RA was seropositive in 65 patients (87.8%). Eighteen patients (24.3%) had been previously diagnosed with ILD, with a median duration of 4 years. Most common patterns of RA-associated ILD were UIP (n=5 [46%]) and CPFE (n=3 [23.1%]). Patients with ILD at baseline as compared to patients without history of ILD were more frequently males (27.8% vs 7.5%, p < 0.05), had an older age (64±12 vs 52±13, p < 0.005), a higher positivity of anti-cyclic citrullinated protein antibodies (CCP) (87.5% vs 80%, p < 0.005) and a more frequent history of smoking (50% vs 28%, p < 0.005). The treatment received by patients with RA-associated ILD previously to start biologics under LRS program were: metotrexate [MTX] (n=5), leflunomide [LFN] (n=14),

sulfasalazine [SSZ] (n=8), etanercept [ETN] (n=1), adalimumab [ADA] (n=1), abatacept ABA (n=3) and rituximab [RTX] (n=1). When the patients were enrolled to LRS program 83.3% received abatacept, 11.1% anti-TNF α agents and 5.5% rituximab. All patients with RA-associated ILD remained stable at 1 year follow-up. RA patient without ILD who started biologic therapy did not had ILD at 1 year follow-up.

Conclusion: There were no significant differences in the risk of complications between patients with a baseline history of ILD receiving different biologic agents. The present study found that male sex, older age, seropositive RA and patients with a history of smoking, were at increased risk for developing ILD. These data are largely consistent with those of the existing literature. Patients without a history of ILD did not develop pulmonary complications, but these data may be affected by the short follow-up window. Further studies are needed to evaluate the risk of RA-associated ILD and its complications.

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AB0349

DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS AND RISK OF LUNG INVOLVEMENT

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Background: Rheumatoid arthritis (RA) is a common inflammatory disease developing within joints but extra-articular organs such as the lung could be involved.

Objectives: To determine the relationship between disease activity and lung involvement in rheumatoid arthritis (RA) Tunisian patients.

Methods: We performed a retrospective study of patients with RA diagnosed according to American College of Rheumatology-European League Against Rheumatism classification criteria for RA 2010 between 2014 and 2017 in a department of rheumatology in the north of Tunisia. The prevalence of pulmonary involvement was determined based on combined results from chest-X-ray, computed tomography of the chest and pulmonary functional tests. Disease activity was evaluated based on number of night waking, morning stiffness duration, painful joints number and swelling joints number, erythrocytes sedimentation rate (ESR) and C-reactive protein levels (CRP). Specific disease activity scores were also noted including the 28-joint Disease Activity Score Index (DAS28), Clinical Disease Activity Index (CDAI) and Simplified Disease Activity Index (SDAI).

Results: Sixty five patients were collected. Mean age was 56 years $\pm$ 12.8 years and mean age of disease onset was 46.4 $\pm$ 13.8 years ranging from 17 to 75 years. Mean disease duration was 9.6 $\pm$ 10.1 year ranging from 1 to 38 years. Number of painful joints was 13.71 at mean and swelling joints number was 5.98. Morning stiffness duration was 1.03 hour at mean and number of night waking was 2.31. Concerning laboratory investigations, mean ESR was 49.7 mm ant mean CRP level was 13.6 mg/l. The average of DAS28 was 5.8. The overall frequency of lung involvement based on different lung investigations was 27.6% (18 patients). Interstitial lung disease was found in 7 cases, bronchiectasis was found in 5 cases, rheumatoid nodule in 4 cases and pleural disease in 2 cases.

Patients with lung involvement had significantly higher painful joints number ($p=0,034$) and no difference was seen concerning swelling joints number. Number of night waking and morning stiffness duration had no impact in lung involvement ($p=0,651$, $p=0,907$ respectively). RA patients with lung involvement displayed higher ESR level ($p=0,032$) and no difference was seen concerning CRP level. No association was found between lung involvement and specific disease activity scores (DAS28, CDAI, SDAI).

Conclusion: Our study showed that only high level of ESR could be associated with lung involvement in RA Tunisian patients.

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AB0350

RHEUMATOID ARTHRITIS MANAGEMENT IN SOUTHEAST TURKEY, EXPERIENCE FROM RURAL AREA

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Background: Rheumatoid arthritis is a chronic disease affecting more commonly women in all age groups. Access to healthcare, taking part in decision making and compliance with the treatment are very important in management. In Turkey, after completion of their fellowships, rheumatologist work for a limited time in state hospitals mandatorily (especially in under-developed cities of the country). Batman city lies in the southeast of Turkey with a population of 585.000 people; 7% of whom is illiterate. Due to ethnic and cultural reasons women suffer more commonly in obtaining and maintaining education and healthcare.

Objectives: To define the clinical characteristics, adherence to follow-up appointments and treatments ever received in patients with rheumatoid arthritis in Batman State Hospital.

Methods: Hospital records between July 15th 2017 and January 1st 2019 were viewed retrospectively. Only 1 rheumatologist works in the hospital. Appointments were scheduled between 1-3 months intervals, patients were defined as 'lost to follow-up' if there was no clinical appointment in last 3 months. Patients were categorized as recently or formerly diagnosed and according to receiving conventional synthetic disease modifying agents (DMARDs) (methotrexate, leflunomide, hydroxy-chloroquine, sulfasalazine) or biologic DMARDs (adalimumab, etanercept, infliximab, golimumab, certolizumab pegol, rituximab, tocilizumab, abatacept, tofacitinib). Most of the patients received low-dose steroids.

Results: Patient characteristics and treatments are displayed in the table. Follow-up duration for the patients who continued follow-ups was 8.9 months on average (max: 17 months). Average follow-up duration for patients who lost to follow-up was 2.8 months (min: 1 month, max: 13 months). Seventy-one of 146 patients who lost to follow-up came to appointment only once. Route of administration was very important in biological treatment decisions, oral treatments and intravenous administration in hospital were favored over subcutaneous administration especially for elderly illiterate patients.

Table: Patient characteristics, treatments

Age	Mean 51 years (min:16 y, max:85 y)
Sex	Female:432, Male:86 (F/M=5)
RF or Anti-CCP positivity	Seropositive: 308 patients Seronegative: 210 patients
Lost to follow-up (total)	146 patients (28%)
Continuing follow-up (total)	372 patients (72%)
Recently diagnosed (135 patients) (26%)	Lost to follow-up: 37 (27%) Continuing follow-up: 98 (73%)
Formerly diagnosed (383 patients) (74%)	Lost to follow-up: 108 (28%) Continuing follow-up: 275 (72%)
Conventional Synthetic DMARDs (397 patients) (77%)	Lost to follow-up: 135 (34%) Continuing follow-up: 262 (66%)
Biologic DMARDs (121 patients) (23%)	Lost to follow-up: 11 (10%) Continuing follow-up: 110 (90%)
Biologic DMARDs (route of administration ever received, including switches)	Subcutaneous : 52 (35%) Intravenous: 67 (45%) Per oral: 28 (20%)