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AB0298 ANTIBODIES TO CYCLIC CITRULLINATED PEPTIDE AND MODIFIED CITRULLINATED VIMENTIN: A ROLE IN RHEUMATOID ARTHRITIS ASSOCIATED WITH AUTOIMMUNE THYROIDITIS

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Background: Specific antibodies, including antibodies to cyclic citrullinated peptide (ACCP) and modified citrullinated vimentin (AMCV) are markers of severe course of rheumatoid arthritis (RA). At the same time, rheumatoid arthritis often associated with autoimmune thyroiditis (Hashimoto's thyroiditis (HT)).
Objectives: Evaluate the role of antibodies to ACCP and AMCV on the clinical and laboratory features of rheumatoid arthritis in association with autoimmune thyroiditis.
Methods: The study included two groups of patients. The first group of patients included 16 patients (14 men and 2 women, mean age - 62.37±2.12 years) with RA in combination with HT and detection in the blood only ACCP (group 1). The second group also included 16 patients (14 women and 2 men, mean age – 52.31±4.94 years) with RA in combination with HT and detection of ACCP and AMCV in the blood (group 2). In the first group of patients 10 patients had euthyreose, from 5 - hypothyroidism, compensated intake of L - thyroxine, 1 patient - thyrotoxicosis underway medikal euthyreose. In the second group of patients was observed in 14 patients euthyreose, from 2 - hypothyroidism, compensated reception L-thyroxine.
Results: Both groups of patients differed on the following parameters studied: erosion detected in 68% in group 1 and 50% in group 2 ($p<0,05$), in the first group of patients predominated (62%) the high degree of activity of RA by DAS-28, in while in group 2 - the average (56%, $p<0,05$).
By using correlation analysis Spearman correlation relationships among the studied attracted attention significant ($R=0,62$, $p<0,05$) relationship between erosions and detection in the blood of antibodies to ACCP in the second group of patients (a combination of RA and HT and identifying in blood ACCP and AMCV), which was repeatedly weakened and unreliable in group 1 (combination of RA and HT and only detect of ACCP) in the blood.
Conclusions: Second group patients (a combination of RA with HT and detection in blood ACCP and AMCV) are closer correlations with indicators of joint destruction than group 1 patients, that in the future may use as a prognostic marker of a more severe course of RA in combination with HT.

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AB0299 ATLANTOAXIAL SUBLUXATION AS A PROBLEM IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Atlantoaxial subluxation (AAS) is important and potentially life threatening complication of Rheumatoid arthritis (RA). It is defined when the space between odontoid process from C2 and arch of the atlas exceeds more than 3 mm. Instability in atlantoaxial joint may result with numerous neurological symptoms, compression of spinal cord and ultimately quadriparesis or quadriplegia.
Objectives: Aim of the study was to determine the frequency and the characteristics of atlantoaxial instability among our patients with RA and its dependence on the nature of the disease.
Methods: 92 outpatients from University Rheumatology Clinic in Skopje, with classical RA (ACR criteria 1988) were examined for the AAS. In all cases were analysed the duration of the disease, haematological and serological tests, disease activity (DAS 28), visual analogue scale (VAS) for the degree of articular pain and verbal rating scale (VRS).for cervical-occipital pain. All patients underwent native and functional x-ray, CT scan and MRI of cervical spine. A complete neurological examination was obtained, with SEP of the n. medianus et n. tibialis.
Results: Atlantoaxial instability, with expressed cervical-occipital symptomatology, occurred in 54 from 92 (58,69%) patients with RA. AAS appeared significantly more often in patients with longer duration of the disease ($p<0,0001$), in cases with significant cervical-occipital pain (VRS $p<0,0001$), with stronger joint pains (VAS), with higher values of SR ($p=0,002$), CRP ($p=0,023$), RF ($p=0,000005$), anti CCP ($p=0,00003$), and DAS 28 ($p<0,0001$). Anaemia and thrombocytosis ($p=0,0008$) appeared significantly more in cases with AAS. Anterior AAS, (mostly combined with other types) was the most frequent type, presented in 41 participants (75,92%). In one case posterior AAS was detected, what is very rare finding. Positive SEP was significantly higher in the group with AAS
Conclusions: AAS is serious extra-articular manifestation of RA. Cervical subluxation may be a general anesthetic risk and risk for a neck injury. Routine cervical radiographs with the head in flexed position should be recommended in need of general anaesthesia and in situations with risk for a neck injury.
Acknowledgements: Rheumatoid arthritis, atlantoaxial subluxation.
Disclosure of Interest: None declared
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AB0300 ASSOCIATION OF VITAMIN D STATUS WITH RHEUMATOID ARTHRITIS DISEASE ACTIVITY AND UV INDEX

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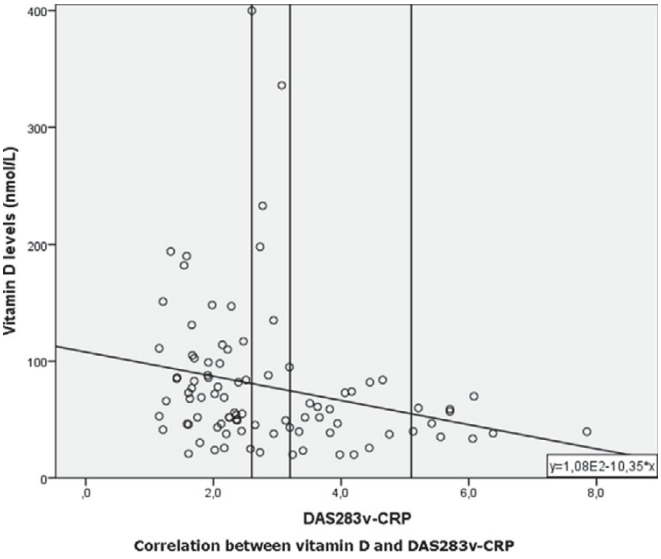
Background: Lower serum vitamin D levels have been shown to be associated with various autoimmune disorders, including Rheumatoid Arthritis (RA). Vitamin D deficiency is common in RA patients, despite profiting from a sunny country.
Objectives: The aim of the study is to evaluate (1) – the association between vitamin D serum levels and disease activity in patients with RA; (2) – seasonal distribution of vitamin D levels.
Methods: Patients fulfilling the 2010 EULAR/ACR Rheumatoid Arthritis Classification Criteria, which had serum vitamin D [25(OH)D3] levels measured between January 2013 and December of 2016 were included. Demographic data, disease activity scores, including DAS283v-CRP and DAS283v-ESR, vitamin D supplementation with cholecalciferol and other therapeutic approaches were recorded. Vitamin D insufficiency was considered between 25–75 nmol/L and deficiency if <25 nmol/L. According to the national agency for the study of sea and atmosphere, UV Index levels were grouped into low UV Index 3–6 (October to April) and high UV Index 9–10 (May to September). Correlation between variables was analyzed using Spearman's rho.
Results: A sample composed by 95 patients, 79 females (83.16%), with an average age (SD) of 68.57 (11.92) years within 40–88 years range were included. Average disease duration was 13.46 (11.41) years. The average age at diagnosis was 57.10 (14.25) years. The average vitamin D levels were 78.13 (60.98) nmol/L in a range between 20–400 nmol/L. Vitamin D levels were not significantly different in male *vs.* females patients. The prevalence of vitamin D insufficiency and deficiency was 53.68% and 8.42% respectively, despite 57.89% of the patients taking supplementation (average 6141 (4800) UI/week). The univariable analysis showed that albeit vitamin D levels presented a negative poor correlation with DAS283v-CRP (rho=-0.348, p-value<0.001) and DAS283v-ESR (rho=-0.271, p-value<0.01), there was a direct reduction in dispersion of the vitamin D values for increasing values of DAS283v-CRP and ESR. It was observed that vitamin D levels increase with patient age and decrease with disease duration. Sazonality and supplementation didn't affect vitamin D levels in our population.



Correlation between vitamin D and DAS283v-CRP

Conclusions: Vitamin D insufficiency/deficiency was frequent among RA patients (62.1%), independently of seasonality or supplementation. An interesting pattern

behavior was observed in this study, which indicates that the likelihood of encountering a very narrowband of vitamin D values for patients with high disease activity is very high, and thus, the forecast capability of vitamin D values for patients with increasingly active disease is quite good. Future research will aim at strengthening the statistical parameters of relevance, identifying and characterizing the more specific behaviours of this global pattern.
Disclosure of Interest: None declared
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AB0301 CARDIOVASCULAR RISK AND END ORGAN DAMAGE IN AN ITALIAN GROUP OF PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: The elevated cardiovascular burden of rheumatoid arthritis is well known and the recent update of EULAR recommendations for cardiovascular disease management (1) establish as overarching principle that the rheumatologist is responsible for CVD risk management in patients with RA. They highlight the need of optimal disease activity control, regular CVD risk assessment, lifestyle counseling, appropriate prescription of NSAIDS,corticosteroids,antihypertensives and statins. Screening for asymptomatic atherosclerotic plaques by use of carotid ultrasound is also suggested: the presence of carotid plaques is associated with poor CVD-free survival and is strongly linked to future acute coronary syndrome in RA patients.
Objectives: We performed an overall cardiovascular assessment to evaluate the presence of end-organ damage in a group of RA patients.
Methods: We carried out non-invasive 24 hours ambulatory blood pressure monitoring, echocardiography, carotid doppler ultrasound and pulse wave velocity (PWV) in a group of RA patients to optimize non-DMARDs therapy and to evaluate end organ damage.
Results: 55 RA patients, 76.4% female, mean age 62.8±9 yrs were examined. The median disease duration was 12 yrs. 84% were RF +, 80% ACPA + and 51% had erosions. Mean DAS 28 CRP was 2.82±1.23 and HAQ 0.54±0.6. All pts were treated with cDMARDs and/or bDMARDs (54%) and Pd mean dosage was $\leq$5 mg/day. Only 3 patients had previous CV event. 49% were hypertensive, 25% had high cholesterol, 13% diabetes and 16% were smokers: median BMI was 25. MAP monitoring revealed that 43/55 (78%) pts were hypertensive: 13 of them had unknown or not/under treated hypertension: 63% had dipper profile and only 12% were reverse dipper. We did not find increased left ventricular mass and wall thickness, but left ventricular diastolic dysfunction grade I-II was found in 26/55 pts, not related to hypertension nor to RA activity. The IMT median value was 655 mm; only in 3 pts was $>$900 mm: no relation with disease activity was found. In 11 pts carotid plaques were present and related with age, BMI and ambulatory mean pressure values, but not with RA activity or duration. In one patient the plaque required carotid endarterectomy. The PWV median value was $>$10m/s in 16 pts, all hypertensive.
Conclusions: The accurate evaluation of cardiovascular involvement of this small group of RA patients shows that hypertension is frequent and often not appropriately treated and seems to be the main cause of the increased PWV. Low grade LV diastolic dysfunction was found in half of patients, with no relation with hypertension or RA features, except for CCP presence, but the small numbers do not allow any speculation. Carotid artery involvement was present in 20% of pts, but only in 1 was clinically significant. Once again no relation with RA features was found: the small number of patients, the low disease activity and the tight and overall clinical control could be partial explanations. The clinical tight control of patients with RA is an unique opportunity to fulfill EULAR reccomendations.
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Disclosure of Interest: None declared
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AB0302 WORKABILITY IN PATIENTS WITH SEROPOSITIVE RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) and other rheumatic conditions can lead to work disability, and temporary or permanent exit from the labour market. The indirect costs related to work disability, are higher than direct treatment costs, and pose an economic burden on patients and society. Workability in RA is influenced by many factors, including symptoms, such as pain, swelling and stiffness, muscle strength, or physical or mental exhaustion, which are components of the frailty syndrome.
Objectives: This study aimed to determine the association of workability with disease activity, pain, functional disability and frailty in patients with seropositive rheumatoid arthritis.
Methods: We conducted a monocentric cross-sectional study at a rheumatologic outpatient clinic and day hospital including 100 seropositive RA patients (according to 2010 EULAR classification) in the working age ($<$65 years). Workability was assessed with the self-administered Work Ability Index questionnaire. For disease activity, we used the Clinical Disease Activity Index (CDAI), a Visual analogue scale for pain assessment, for functional disability the self-administered Health Assessment Questionnaire Disability Index (HAQ-DI) and for the degree of frailty the SHARE Frailty Instrument (SHARE-FI). After testing for normal distribution, bivariate correlations between workability and associated variables were calculated using Spearman's correlation coefficients.
Results: Of 100 patients for 58 the workability index could be assessed. The remaining 42 were either unemployed, on disability pension, or employed but currently not working. These 58 patients, 37 women and 21 men, had an average age of 64.8 years (min-max=22–59, SD=9.3) and an average disease duration of 93.9 months (min-max=3–360, SD=86.7). 8 patients reported excellent workability, 27 good workability, 16 moderate workability and 7 poor workability. The workability was weakly correlated with age (r_s= -0.37, p$<$0.004), and moderately correlated with pain intensity (r_s=0.42, p$<$0.001), disease activity (r_s=0.40, p$<$0.002), functional disability (r_s=0.64, p$<$0.000) and frailty (r_s=0.623, p$<$0.000).
Conclusions: A considerable portion of employed RA patients reported poor or moderate workability, which is significantly associated with disease activity but also with the other parameters assessed. An adequate therapy may therefore not only improve well-being and state of health in RA patients but also provide socioeconomically advantage by maintaining patients' workability.
Disclosure of Interest: None declared
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AB0303 DOES COMORBIDITY ADVERSELY IMPACT ON TREATMENT RESPONSE IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: The burden of comorbid illness in Rheumatoid Arthritis is high. Whilst there can be coincidental existence of comorbidity, it can be attributed to the disease process itself or therapeutic agents. Recent EULAR guidelines recommend reporting, screening and prevention of six common co-morbidities (cardiovascular, malignancy, infections, gastrointestinal, osteoporosis, depression). Limited research is available evaluating the impact of comorbidity on disease response following biologic treatment.
Objectives: To analyse retrospective data from the King's College Hospital (KCH) Virtual Biologic Clinic (VBC) to assess the impact of comorbidity on disease response following treatment with biologics.
Methods: Retrospective patient note review data was collected for patients referred to the VBC from May 2013 to July 2016. The following data was recorded: age, sex, disease duration, smoking status, BMI, presence or absence of Anti CCP antibody +/-Rheumatoid factor and the six specified comorbidities. Disease Activity Score in 28 joints (DAS28) at time of referral for biologic and within 6 months of commencing treatment was also recorded in order to calculate treatment response.
The impact of comorbidity and disease variables on 6 month EULAR response were analysed using logistic regression (SPSS version 23).
Results: The database contained 150 patients. 18 patients were excluded due to no follow-up DAS28, leaving 132 for analysis. Mean age and disease duration were 58 years and 10.45 years respectively. Comorbidity was present in 70% of patients. 70% of patients achieved a EULAR moderate response (improvement of $>$1.2 of DAS28) and 36% of this group achieved EULAR good response (DAS28$<$3.2). The most prevalent comorbidities were infection, cardiovascular disease and depression.
Logistic regression analysis was run analysing EULAR moderate response against presence of comorbidity and dataset variables (age, gender, serostatus, baseline DAS, HAQ and polypharmacy). The resulting model was not statistically significant (p=0.975).
Logistic regression analysis looking at EULAR good response against presence of comorbidity was also not statistically signifiicant (p=0.149). Analysis looking at EULAR good response against three variables (HAQ, baseline DAS and serostatus) was found to be statistically significant (p$<$0.001)

Characteristics	All N=132	No EULAR moderate response N=40	EULAR moderate response N=92	EULAR good response N=34
Age years (SD)	58 (13)	56 (10)	59 (14)	57 (11)
Gender (%F)	79%	72.5%	81.5%	76%
Positive serostatus	77%	65%	82%	74%
RA Disease duration (years) (SD)	10.45 (10.81)	10.70 (11.47)	10.34 (10.52)	10.54 (10.74)
Prior biologic use	55%	60%	52.2%	32%
Comorbidity	70%	80%	82%	62%
Baseline DAS28 (SD)	6.27 (0.93)	6.27 (0.93)	6.28 (0.93)	6.26 (0.93)
Mean DAS improvement (SD)	1.97 (1.57)	1.97 (1.57)	1.99 (1.58)	1.95 (1.58)

Conclusions: Comorbidities were present in the majority of patients assessed