Prediction of response were assessed using the area under the receiver-operator characteristic (AUROC) and sensitivity/specificity. Sub-analyses were performed for primary and secondary non-responders. Correlations between ADL and ADA presence and clinical variables were also cross-sectionally explored.

Results: 137 patients were included, 47 of whom switched to a second TNFi and 90 to a non-TNFi. Sensitivity and specificity of the proposed ADA and ADL reference values were low (table 1). The AUROC did not differ appreciably or significantly from 0.5. Results were similar for both primary and secondary non-responders to adalimumab.

Table 1. predictive values of ADA and ADL for response to a subsequent bDMARD in TNFi and non-TNFi switchers.

	sensitivity (%)	specificity (%)	AUC	CI
<i>TNFi switchers</i>				
ADA presence (>12AU/mL)	18	75	0.46	0.32-0.59
low ADL (<5mg/L)	32	69	0.50	0.29-0.71
<i>non-TNFi switchers</i>				
ADA presence (>12AU/mL)	33	70	0.52	0.42-0.63
low ADL (<5mg/L)	50	52	0.50	0.34-0.65

Higher ADL (Spearman's $\rho = -0.68$, $p = 0.00$) but not ADA ($\rho = 0.23$, $p = 0.28$) presence was associated with a lower DAS28 at the time of switching to a subsequent bDMARD, but not with follow-up DAS28 after starting the subsequent bDMARD ($\rho = -0.29$, $p = 0.17$, and $\rho = 0.10$, $p = 0.65$, respectively). In addition, higher ADL were associated with lower baseline CRP ($\rho = -0.67$, $p = 0.00$) and ESR ($\rho = -0.546$, $p = 0.006$) and higher ADA correlated with higher baseline ESR ($\rho = 0.49$, $p = 0.01$).

Conclusion: No predictive value for response to a second TNFi or non-TNFi was found for either ADA or random timed ADL. Limitations of this study are the retrospective design and random timed serum sampling. An ongoing randomized blinded test-treatment trial will provide more definitive answers [4].

References:

- [1] Van Herwaarden et al. *Expert Opin Drug Metab Toxicol*. 2017;13:843–57.
- [2] Pouw et al. *Ann Rheum Dis*. 2015 Mar;74(3):513–8.
- [3] Bartelds et al. *Ann Rheum Dis*. 2007 Jul;66(7):921–6.
- [4] ADDORA-SWITCH study, www.trialregister.nl, no NL 8210

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AB0187 ASSESSMENT OF ADHERENCE TO TREATMENT OF PATIENTS WITH RHEUMATOID ARTHRITIS (RA)

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Background: Rheumatoid arthritis (RA) is the most common chronic immune inflammatory disease. The effectiveness of RA therapy largely depends on adherence to treatment. Non-compliance with the recommendations of the doctor leads to increased disease activity, a greater risk of complications and the increase in the cost of treatment.

Objectives: To determine predictors of adherence to treatment of patients with RA.

Methods: The study included 82 women with reliable RA according to the criteria of ACR1987 and / or EULAR / ACR2010 (mean age 53.3 ± 10.2 years, the age at the onset of the disease is 42.4 [36;51] years, mean duration of RA - 10.8 [6;14] years, DAS28 - 5.03 [4.3;5.8]). Treatment adherence was assessed according to the questionnaire "Quantitative Evaluation of Adherence to Treatment (KOP - 25)" [1]. The following indicators were calculated: adherence to drug therapy, adherence to medical support, adherence to lifestyle modification and their integral index. For all indicators, the level of values in the range up to 50% is interpreted as "low" («non-adherence to treatment»), from 51 to 75% - as "medium," more than 75% - as "high" («adherence to treatment»). The functional ability of patients was assessed by the Health Assessment Questionnaire (HAQ). The severity of pain was determined by VAS. Statistical processing was performing using the program STATISTICA 10.0.

Results: Adherence to drug therapy in women with RA was determined: low adherence in 32 (39%) patients, average in 34 (41.5%) patients and high in 16 (19.5%) patients; adherence to medical support: low in 26 (31.7%) patients, average in 40 (48.8%) patients, and high in 16 (19.5%) patients; adherence to lifestyle modification: low in 55 (67%) patients, average in 25 (30.5%) patients and high in 2 (2.5%) patients. According to the integral

indicator of adherence to treatment, 34 (41.5%) patients were not adherent to treatment, average adherence was recorded in 42 (51.2%) patients, and high in 6 (7.3%) patients.

The HAQ functional impairment was absent in 7 (8.5%) patients, minimal impairment occurred in 26 (31.7%), moderate - in 40 (48.8%) and severe - in 9 (11%) patients.

Severe pain in the VAS was noted by 29 (35.4%) patients, moderate - 39 (47.6%), in 14 (17%) patients the pain syndrome was weakly expressed.

The relationships of adherence to treatment was established with age ($r = -0.29$, $p < 0.05$), age at the onset of the disease ($r = -0.28$, $p < 0.05$), HAQ index ($r = -0.27$, $p < 0.05$), the number of swollen joints ($r = -0.3$, $p < 0.05$).

Patients under age of 39 years were the most adherence to drug therapy.

In patients with medium and high adhering to treatment, the severity of pain according to VAS was significantly lower than in non-adherent patients (50.6 [34;66] and 60.4 [46;73], respectively, $p = 0.04$). In patients with treatment adherence, activity was significantly lower than in non-treatment adherents (DAS 28 (4.7 [3.5;5.4] and 5.3 [4.7;5.9], respectively, $p = 0.04$).

Conclusion: Low treatment adherence has 41.5% of RA patients. Predictors of adherence to treatment are the young age patients, the onset of the disease before age of 39 years. Non-treatment patients with RA have a higher activity of RA according to DAS28, pain intensity according to VAS, the worst functional status. To increase the effectiveness of treatment, constant interaction between the patient and the physician is necessary, explaining to patients the consequences of non-compliance with recommendations.

References:

- [1] Nikolaev N. A., Skirdenko Yu. P. Russian universal questionnaire for the quantitative evaluation of adherence to treatment (KOP - 25). *Clinical pharmacology and therapy*. 2018;27(1): 74-78.

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AB0188 COMPARISON OF COMPOSITE INDICES FOR DETECTING REMISSION ON ULTRASOUND

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Background: Several studies have shown the greater sensitivity of ultrasound (US) to detect B-mode synovitis and synovial Doppler activity in a high percentage of rheumatoid Arthritis (RA) patients in clinical remission, assessed by different composite indices.

Objectives: The aim of the study was to compare the accuracy of composite indices to detect remission in ultrasound B-mode and power Doppler (PD) in RA patients that are in remission according to the DAS28 ESR.

Methods: Cross-sectional study including patients with RA in clinical remission defined by: DAS28ESR ≤ 2.6, without disease flare or changes in therapy in the previous 6 months. Each patient underwent B-mode and PD assessments of 36 joints and 20 tendons in the Rheumatology Department over a period of 6 month. B-mode and PD signal for synovitis and tenosynovitis were defined according to the Outcome Measures in Rheumatology Clinical Trials (OMERACT). A global score for B-mode and a global score for PD signal were calculated for each patient. The DAS28, CDAI, SDAI and the Boolean 2010 ACR/EULAR remission criteria were compared.

Results: Thirty two patients were enrolled, the mean age was 53.7±13.4 and the sex ratio M/F was 0.3. The mean disease duration was 15.0 years ± 8.8. According to the SDAI, 68.8% of patients were in remission. These were lower for the CDAI (62.5%) and the Boolean criteria (23.3%). Synovial hypertrophy and tenosynovitis in B mode was detected in 100% with the Boolean remission criteria, in 93.8% with a DAS28, in 90.9% with a SDAI ≤ 3.3 and in 90% with a CDAI ≤ 2.8 ($p > 0.05$). The PD signal was detected in 62.5% with a DAS28, in 59.1% with a SDAI ≤ 3.3, in 57.1% with the Boolean remission criteria and in 55.1% with a CDAI ≤ 2.8 ($p > 0.05$). The mean B-mode global score was higher for the DAS28 ESR (8.2±6) and lower for the Boolean remission criteria (6.2±5.4). For a CDAI ≤ 2.8, the mean global score for B-mode was 7.6±5.9 and for a SDAI ≤ 3.3, it was 7.4±5.7. The median PD global score was similar for the DAS28, SDAI ≤ 3.3 and Boolean remission criteria (1[0-12]). It was higher for a CDAI ≤ 2.8 (1.5 [0-12]). The global score for PD signal was correlated with DAS28 ESR ($r: 0.42$ $p: 0.02$). There were no significant correlations between the other indices and the mode B and PD global scores.

Conclusion: The CDAI least detected subclinical synovitis and tenosynovitis in B mode and in power Doppler signal but it showed higher scores of power Doppler.

References:

- [1] Merve Ozata Olmez, Esen Kasapoglu Gunal, Sibel Bakirci Ureyen and al. Comparison of composite indices with global synovitis score on ultrasound for detecting remission. *Clinical Rheumatology* 2017. doi.org/10.1007/s10067-017-3925-x

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AB0189

ASSESSMENT OF POWER DOPPLER SYNOVITIS IN RHEUMATOID ARTHRITIS PATIENTS WITH CLINICAL REMISSION

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Background: Ultrasound-detected synovitis, mainly synovial Doppler signal, has shown predictive value in relation to radiographic damage progression and disease flare or relapse in rheumatoid arthritis (RA) patients with clinical remission.

Objectives: The aim of the study was to analyze the correlation between power Doppler scores and clinical/laboratory and radiographic data in clinical remission RA patients.

Methods: Cross-sectional study including patients with RA in clinical remission defined by: DAS28ESR ≤ 2.6 , without disease flare or changes in therapy in the previous 6 months. Each patient underwent ultrasound: B-mode and PD assessments of 36 joints and 20 tendons in the Rheumatology Department over a period of 6 month. Synovitis and tenosynovitis were defined and scored according to the Outcome Measures in Rheumatology Clinical Trials (OMER-ACT). Radiological measurements included the modified Sharp/van der Heijde method (SHS). Functional capacity was assessed by the Health Assessment Questionnaire (HAQ).

Results: Thirty two patients were enrolled, the mean age was 53.7 $\pm$ 13.4 and 75% were female. The mean disease duration was 15 years $\pm$ 8.8. Subclinical synovitis were the most frequent in wrist (56.3%), 2nd metacarpophalangeal joints (28.1%) and 2nd metatarsophalangeal joints (29%). The mean subclinical synovitis/ tenosynovitis numbers was 4 $\pm$ 3.1 per patient. Synovial hypertrophy and B mode tenosynovitis were detected in 93.8%: 71.3% had a grade = 2 and 9.8% had a grade= 3. Total B mode score was correlated only with the SHS score in the feet (r: 0.4, p: 0.03). PD signal was detected in 62.5% of patients: 37.5% had a grade =2 and 9.4% had a grade= 3. Total PD score was correlated with DAS28 (r:0.42, p:0.02), the SHS score in the hands (r:0.39, p:0.03) and in the feet (r:0.5, p:0.007), synovial hypertrophy (r:0.6, p:0.0001) and HAQ (r:0.32, p:0.06). No correlation was found with CDAI, SDAI, swollen joint counts, tender joint counts, patient global health assessment, erythrocyte sedimentation rate, C-reactive protein, rheumatoid factor and anti-cyclic citrullinated peptide, biologic treatment.

Conclusion: Synovial hypertrophy and PD signal were frequent in RA remission. PD signal was associated with RA activity, radiologic damage and functional capacity.

References:

- [1] Yan Geng & Jingjing Han & Xuerong Deng and al. Presence of power Doppler synovitis in rheumatoid arthritis patients with synthetic and/or biological disease-modifying anti-rheumatic drug-induced clinical remission: experience from a Chinese cohort. Clinical Rheumatology 2014. DOI 10.1007/s10067-014-2634-y

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AB0190

DO IT FAST! EARLY ASSESSMENT BY A RHEUMATOLOGIST INCREASES THE CHANCES OF RHEUMATOID ARTHRITIS BEING TREATED WITHIN THE "WINDOW OF OPPORTUNITY"

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Background: The current concept of treating rheumatoid arthritis RA patients emphasizes the importance of early diagnosis and early initiation of disease-modifying drugs (DMARD) for a better prognosis of these patients.

Objectives: To evaluate the impact of rheumatologic evaluation on the diagnosis of RA patients, as well as on the initiation of DMARD and on the clinical control of disease activity of these patients under real-life conditions.

Methods: The REAL study included RA patients attending eleven public hospitals, from different regions of Brazil. All subjects met the ARA (1987) or ACR/

EULAR (2010) RA classification criteria. Subjects were submitted to clinical interview with physical exam and review of medical records. Specialized assessment was defined as sequentially "early", when the rheumatologist was the 1st or 2nd consulted physician, and sequentially "late", when the rheumatologist was consulted after two or more other doctors. Welch's t, Mann-Whitney's U, chi-square and Spearman's rho tests were used to test hypotheses, at significance level of 0.05. The study was approved by local ethics committees and all participants granted informed consent.

Results: 1057 RA patients were assessed; 89.4% (n=945) female; 56.5% (n=597) white; mean (SD) age of 56.9 (11.5) years; mean (SD) disease duration of 173.1 (114.5) months. Median [IQR] delay from symptoms onset to RA diagnosis and to the first DMARD both equaled 12 [6, 36] months. Only 28.7% received a DMARD within 6 months of symptoms onset, and 13.1% within 3 months. Most patients (64.6%) sought a general practitioner first, but 80.7% were finally diagnosed only upon rheumatologist consultation. For 28.8%, the rheumatologist was consulted after two or more other doctors. Early specialized assessment resulted in higher chances of receiving a DMARD within 6 months (OR 2.77; 95%CI [1.93, 3.97]) and within 3 months (OR 2.57; 95%CI [1.54, 4.27]) of RA onset. Late assessment was associated with lower chances of being in remission or low disease activity upon study inclusion (OR 0.53; 95%CI [0.39, 0.72]). Patients assessed early by the rheumatologist, compared to those assessed late, showed lower (mean [SD]) HAQ scores (0.877 [0.715] vs. 1.074 [0.857]; p<0.001) and DAS28-CRP scores (3.20 [1.32] vs. 3.45 [1.48]; p=0.02), and shorter delays to RA diagnosis (26.9 [46.7] vs. 44.6 [60.1] months; p<0.001) and to use the first DMARD (32.5 [58.5] vs. 50.6 [69.9] months; p<0.001). The delay to initiate a DMARD was strongly correlated to that of diagnosing RA (rho 0.816; p < 0.001).

Conclusion: Most RA patients missed the window of opportunity to early treatment. Treatment delay strongly correlated with delay in diagnosis, which critically depended on the input from the rheumatologist. Late rheumatologist assessment was associated with lower chances of early RA treatment and with worse outcomes. Failure in direct transition from primary to specialized care was a common problem that needs to be solved.

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