Results: Of the 1,224 patients fulfilling the inclusion criteria, 93 (7.6%) switched therapy and 1,131 (92.4%) did not switch therapy after not achieving an adequate response on the initial b/tsDMARD. At BL, 42.5% and 70.0% of patients had no meaningful improvement to their prior therapy based on ≥ 6 and ≥ 12 -unit change, respectively; mean (SD) age was 53.1 (14.0) years; duration of RA 10.7 (10.4) years; CDAI 22.2 (10.8); 81.7% were female; 64.5% had MDA, 35.5% had HDA; 21.5 % reported being disabled, 24.7% were current smokers, and 50% were obese. In terms of prior biologic use 57.0%, 22.6%, and 20.4% had been on 1, 2, and 3+, respectively. From BL to F/U, meaningful worsening occurred in 30.1% and 12.9% using a threshold of 6 and 12, respectively, with the remaining patients experiencing meaningful improvement or no meaningful change (Figure 1).

Figure 1. Meaningful Worsening, Meaningful Improvement, and No Meaningful Change Based on CDAI Change Thresholds of ≥ 6 and ≥ 12 From BL to F/U (N=93)

Conclusion: In our analysis, a large proportion of patients who initiated a biologic/JAKi and experienced some improvement but failed to attain LDA or remission, did not switch therapy within approximately a year. This analysis consisted of many patients who did not have a meaningful response to their prior biologic/JAKi, patients who had received multiple prior biologics, and a large portion of patients with poor prognostic factors. Despite this, the proportion of patients with meaningful worsening was low compared with most patients who had either meaningful improvement or no meaningful change. Additional research is warranted to understand the reasons for not switching and whether the likelihood of a meaningful change correlates with prior response, poor prognosis, or other factors.

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POS0595

ABATACEPT IN USUAL AND IN NON-SPECIFIC INTERSTITIAL PNEUMONIA ASSOCIATED TO RHEUMATOID ARTHRITIS. NATIONAL MULTICENTER STUDY OF 190 PATIENTS

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Background: Interstitial lung disease (ILD) is a severe complication of Rheumatoid Arthritis (RA). Usual interstitial pneumonia (UIP) is considered to be more frequent and severe in RA than non-specific interstitial pneumonia (NSIP). Abatacept (ABA) and Rituximab have demonstrated efficacy in RA-ILD [1-3].

Objectives: To compare the efficacy of ABA in RA-ILD patients according to radiological patterns of UIP or NSIP.

Methods: From an observational multicenter study of 263 RA-ILD patients treated with ABA, we selected those with UIP or NSIP [2]. We analyzed in the 2 groups from baseline up to 24 months the following outcomes: **a)** Forced Vital Capacity (FVC), **b)** Carbon monoxide diffusing capacity (DLCO), **c)** Chest High Resolution Computed Tomography (HRCT), and **d)** dyspnea. Differences between final follow-up and basal visit were calculated as the average difference and 95% Confidence Interval (95% CI). Multivariable linear regression was used to assess the differences between the 2 groups.

Results: We studied 190 patients with UIP (n=106) and NSIP (n=84). Patients with UIP were older, had more positivity for rheumatoid factor and had received more sulfasalazine (Table 1). ILD duration up to ABA initiation was relatively short in both groups, with a median [IQR] of 16 [4-50] and 11 [2-36] months in UIP and NSIP patterns, respectively. Mean baseline values of FVC and DLCO were > 80% and > 60%, respectively, in the 2 groups, with a lower FVC in UIP (82% vs 89% in NSIP, p<0.05). The evolution of FVC and DLCO is shown in Figure 1. Both parameters remained stable during 24 months of ABA therapy. Available chest HRCT images improved/ stabilized in 73.1% and 72.9% of UIP and NSIP patterns, respectively. With multivariable linear regression analysis, no differences were found in the changes of FVC, DLCO, or HRCT images. Stabilization or improvement of dyspnea was found in 91% and 95% of UIP and NSIP patterns, respectively.

Conclusion: ABA seems to be equally effective in stabilizing of DLCO, FVC and HRCT in UIP and NSIP in RA-ILD. Our results suggest that an early administration of ABA in ILD, before significant structural lung damage development, may be preferable to prevent interstitial progression, regardless of the radiological pattern.

REFERENCES:

- [1] Fernández-Díaz C, et al. *Semin Arthritis Rheum.* 2018 Aug;48(1):22-27. doi: 10.1016/j.semarthrit.2017.12.012
- [2] Fernández-Díaz C, et al. *Rheumatology (Oxford).* 2020 Dec 1;59(12):3906-3916. doi: 10.1093/rheumatology/keaa621
- [3] Atienza-Mateo B, et al. *J Clin Med.* 2020 Sep 23;9(10):3070. doi: 10.3390/jcm9103070

Table 1. Main general features at baseline.

	UIP (n=106)	NSIP (n=84)	p value
Age, years mean±SD	66±10	63±10	0.049
Women, n (%)	59 (56)	49 (58)	0.71
Smoker ever, n (%)	51 (48)	45 (54)	0.46
ILD duration up to ABA, months, median [IQR]	16 [4-50]	11 [2-36]	0.57
RF	100 (94)	71 (85)	0.041
ACPA, n (%)	96 (91)	75 (89)	0.83
FVC (% of the predicted), mean±SD	82±21	89±19	0.025
DLCO (% of the predicted), mean±SD	63±19	65±16	0.46
ABA monotherapy, n (%)	45 (42)	41 (49)	0.38
ABA combined+ MTX // + other csDMARD, n (%)	15 (14) // 46 (43)	16 (19) // 27 (32)	0.17
Prednisone at baseline, mg/day, median [IQR]	7.5 [5-10]	10 [5-10]	0.20
<i>Previous immunosuppressive therapy, n (%)</i>			
MTX	81 (76)	68 (81)	0.45
Leffunomide	48 (45)	31 (37)	0.25
Sulfasalazine	16 (15)	5 (6)	0.046
Hydroxychloroquine	24 (23)	16 (19)	0.55
Anti-TNF drugs	37 (35)	30 (36)	0.80
Rituximab	19 (18)	15 (18)	0.99
Tocilizumab	12 (11)	12 (14)	0.54

ABA, abatacept; ACPA, anti-citrullinated protein antibodies; DMARD, disease-modifying anti-rheumatic drug; ILD, Interstitial lung disease; MTX, methotrexate; NSIP, non-specific interstitial pneumonia; RA, rheumatoid arthritis; TNF, tumor necrosis factor; UIP, usual interstitial pneumonia.

Figure 1. Evolution of pulmonary function tests in RA-ILD patients with UIP and NSIP patterns. FVC and DLCO are expressed as mean (95%CI) and compared between the 2 groups.

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POS0596

THE THERAPEUTIC TARGET IS REACHED MORE OFTEN IN RA PATIENTS STARTING TNF INHIBITORS WITH MODERATE ACTIVITY THAN WITH HIGH DISEASE ACTIVITY – AN ANALYSIS FROM THE ATTRA REGISTRY

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Background: Treat to target guidelines recommend achieving remission or low disease activity in rheumatoid arthritis (RA). In the Czech Republic, anti-TNF therapy has been reimbursed only for patients with highly active RA until 2019, when pts with LDA have been also included in the reimbursement policy.

Objectives: The aim of the study was to compare the results of treatment in patients with rheumatoid arthritis and moderate disease activity (MDA) or high disease activity (HDA) starting the therapy with the first anti-TNF drug in routine clinical practice.

Methods: This was a retrospective cohort study of patients treated with the first anti-TNF drug in the Czech Republic. Propensity score was used to match pts starting anti-TNF in MDA or HDA for other important predictive factors. The propensity score was obtained by logistic regression with 10 covariates (gender, age, disease duration, seropositivity, comedication with MTX, comedication with other csDMARDs, number of previous csDMARDs, anti-TNF drug). Within the paired groups, one-dimensional logistic models were then calculated to estimate the odds of remission / low activity after 6 and 12 months of treatment.

Results: A total of 2416 patients were analyzed in the study. 2231 patients had high activity (DAS 28 > 5.1) and 185 patients had moderate activity (3.2 < DAS28

≤ 5.1) at baseline. After 12 months, the low activity state (DAS28 < 3.2) was achieved by patients with MDA in 74.0% and patients with HDA in 52.2%, (p < 0.001) (FIG 1). The differences btw groups were significant in all evaluated intervals of 0, 3, 6, 12 months. Furthermore, a comparison of patients with MDA and HAD by propensity score matching, who no longer differ in the baseline characteristics (except for disease activity and quality of life) was performed. Patients with MDA were 2.4x more likely to achieve remission or low activity according to DAS28-ESR after 6 months and 1.7x more likely to achieve remission or low activity after 12 months of treatment compared to patients with HDA at the beginning of treatment.

Conclusion: This analysis of the results of treatment with anti-TNF drugs in the ATTRA Registry has shown that starting anti-TNF therapy in patients with RA and MDA leads more often to the target of remission or low activity, than in pts with HDA.

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POS0597

EFFECTS OF RITUXIMAB IN PATIENTS WITH RHEUMATOID ARTHRITIS-RELATED INTERSTITIAL LUNG DISEASE: A SINGLE-CENTRE EXPERIENCE FROM TURKEY

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Background: Rheumatoid arthritis-related interstitial lung disease (RA-ILD) is the most common type of lung involvement in rheumatoid arthritis (RA). The existence of RA-ILD is associated with worse survival. There is no mainstay treatment for RA-ILD. However, in recent studies, rituximab (RTX) seems to be effective in RA-ILD.

Objectives: To determine the effects of RTX in patients with RA-ILD from a single-centre.

Methods: In our biological treatment outpatient clinic, a retrospective study was conducted in patients with RA who were treated with RTX. Among them, patients with RA-ILD were analysed. For lung response to RTX, progression was defined as a decline of 10% ≥ in forced vital capacity (FVC) and/or a decline of 15% ≥ in diffusion capacity of carbon monoxide (DLCO). Computed tomography of the chest (chest-CT) were integrated to lung response so as to constitute missing data of pulmonary function tests (PFTs).

Results: A total of 165 patients who are followed-up in our biological treatment outpatient clinic have been using RTX for their RA diagnosis. Among 165 patients, 26 (15.8%) patients with RA-ILD were initiated RTX. Five patients were diagnosed with RA-ILD while using RTX (incidence rate 3%). Patients' characteristics were demonstrated in table 1. Of 26 patients, the most commonly used concomitant disease-modifying antirheumatic drugs was leflunomide (46.2%) followed by mycophenolate mofetil (11.5%), methotrexate (11.5%) and azathioprine (3.8%). Twenty-four (92.3%) patients used steroids. For the evaluation of lung response, 20 patients who had follow-up PFTs and/or chest-CT were compared.