

following inclusion criteria: (1) original research, including case series, case/control studies, cohort studies, and clinical trials; (2) population with RA and associated ILD, either monographically or together with other connective tissue diseases (CTD), provided that individualized data on patients with RA were provided; (3) patients treated with RTX; (4) objective and quantifiable results on the evolution of ILD after treatment with available data of FVC, DLCO and/or HRCT.

Results: Of the 64 papers identified, 9 articles were selected. The studies showed great heterogeneity in design, both in the sample selection criteria and in the objectives of the analysis. Most were observational, retrospective ($n = 6$) or prospective ($n = 2$) studies, with only one open prospective experimental study. Those focused on RA predominated, but 3 of them also included patients with other CTDs. The mean age of the patients in the different studies ranged between 52 and 70 years, predominantly women. 40-79% had a history of smoking and were mostly positive for rheumatoid factor (83-100%) and anti-CCP (82-100%). The most frequent radiological patterns were NSIP, UIP and undefined. The outcome measures were diverse: changes in respiratory function tests (LTF) and HRCT, incidence of pulmonary dysfunction, mortality rates, effect on glucocorticoid deprivation, delay in inclusion in the lung transplant list and/or serious adverse events. The initiation of RTX was motivated by pulmonary and/or joint pathology, in patients with failure to other synthetic or biological DMARDs. A total of 393 treatment cycles were collected in 114 patients, with a mean of 3.45 cycles per patient. The RTX regimen was 2 infusions of 1g 2 weeks apart in all patients, except for 1 who received the lymphoma-like regimen. With regard to the efficacy of the treatment with RTX, improvement and especially stabilization of HRCT and LFT predominated, with numerically greater improvement for DLCO than for FVC. There was also a favorable trend in the evolution of patients treated with RTX compared to controls, although it did not reach statistical significance, and a lower risk of deterioration of lung function in patients treated with RTX versus those who had received other DMARDs. The mortality rate found at 5 years was lower than that previously described for the disease and half for the patients treated with RTX compared to those treated with anti-TNF. The adverse events described in the studies did not show additional safety alerts to those already described for RTX.

Conclusion: RTX seems to be postulated as a promising therapy for patients with ILD associated with RA, showing a stabilizing effect on the lung function, with an acceptable safety profile. However, further research of higher methodological quality prospective studies is needed to confirm these favorable preliminary results.

Disclosure of Interests: None declared

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Rheumatoid arthritis - non biologic treatment and small molecules

POS0646

RAPID AND CONCURRENT IMPROVEMENTS IN PATIENT-REPORTED OUTCOMES OF RHEUMATOID ARTHRITIS WITH BARICITINIB IN RA-BEAM

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Background: The efficacy and safety of baricitinib (BARI), an oral selective Janus kinase (JAK)1/JAK2 inhibitor, were evaluated in the randomized, controlled trial, RA-BEAM (NCT01710358), in patients (pts) with active rheumatoid arthritis (RA) and inadequate responses (IR) to methotrexate (MTX).^{1,2,3}

Objectives: To compare the time to onset and magnitude of improvement across different patient-reported outcomes (PROs) of BARI, adalimumab (ADA) and placebo (PBO) during the first 12 weeks of treatment in RA-BEAM.

Methods: 1,305 patients on stable background MTX were randomized 3:3:2 to PBO, BARI 4mg, or ADA 40mg. In this intent-to-treat analysis, least-squares mean changes and percentage changes from baseline were assessed up to Week 12 for pain (0-100mm visual analog scale [VAS]), SF-36 physical component summary (PCS, 0-100), morning joint stiffness (MJS) severity (0-10), Health Assessment Questionnaire-Disability Index (HAQ-DI, 0-3), Functional Assessment of Chronic Illness Therapy-Fatigue (FACIT-F, 0-52), and Patient Global Assessment of disease activity (PtGA, 0-100mm VAS) scores. PROs were compared between treatments with ANCOVA; the model included change from baseline as the response variable, baseline of interest, regional baseline, joint erosion status, and treatment as explanatory variables. Last-observation-carried-forward

was applied to impute missing data. Speed of onset and magnitude of PRO improvement are presented in spidergrams.

Results: Statistically significant improvements ($P < 0.05$) with BARI and ADA vs. PBO were reported as early as Week 1 for pain, MJS severity, HAQ-DI, and PtGA and at Week 4 for FACIT-F and SF-36 PCS scores. Statistically significantly larger improvements ($P < 0.05$) with BARI vs. ADA were observed as early as Week 2 for pain, PtGA, Week 3 for MJS severity, and Week 4 for HAQ-DI and SF-36 PCS scores. These improvements were maintained to Week 12.

Conclusion: Among MTX-IR pts, BARI and ADA treatment resulted in improvements across all PROs by Week 4, and as early as Week 1, for all but FACIT-F and SF-36 PCS scores. Statistically significant larger improvements for BARI compared with ADA were reported for all PROs, except FACIT-F, by Week 12.

REFERENCES:

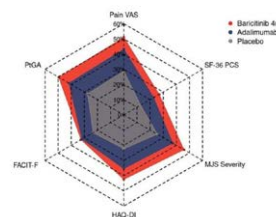
- [1] Taylor et al. NEJM, 2017;376: 652-62
- [2] Keystone et al. Ann Rheum Dis, 2017;76:1853-61
- [3] Strand et al. Ann Rheum Dis, 2020; 79: 599-600

Table 1. Change from baseline in patient-reported outcomes at Weeks 4 and 12

LSM Change from Baseline	Week 4			Week 12		
	PBO	ADA	BARI	PBO	ADA	BARI
Pain VAS	-12.6	-22.3***	-27.1***††	-17.1	-26.4***	-31.5***†††
SF-36 PCS	3.0	5.7***	6.9***††	4.2	7.2***	8.7***††
MJS severity	-0.9	-1.5***	-1.9***††	-1.4	-2.0***	-2.5***†††
HAQ-DI	-0.26	-0.47***	-0.54***††	-0.34	-0.56***	-0.66***†††
FACIT-F	5.2	6.9**	7.8***	6.7	8.7***	9.1***
PtGA	-14.2	-23.7***	-26.8***††	-16.7	-26.6***	-31.2***†††

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$ vs PBO; † $p \leq 0.05$, †† $p \leq 0.01$, ††† $p \leq 0.001$ vs. ADA

ADA: adalimumab; BARI: baricitinib; FACIT-F: Functional Assessment of Chronic Illness Therapy-Fatigue; HAQ-DI: Health Assessment Questionnaire-Disability Index; MJS: morning joint stiffness; PBO: placebo; PCS: physical component scale; PtGA: Patient Global Assessment; VAS: visual analog scale



Pain VAS = Patient's Assessment of Pain Visual Analog Scale; PCS = Physical Component Score; MJS = Morning Joint Stiffness; HAQ-DI = Health Assessment Questionnaire Disability Index; FACIT-F = Functional Assessment of Chronic Illness Therapy-Fatigue; PtGA = Patient's Global Assessment of Disease Activity.

Figure 1. Percentage improvement from baseline to Week 12 in PROs of patients with RA in RA-BEAM

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EFFICACY, SAFETY AND CHARACTERISTICS OF IGURATIMOD-BASED THERAPY IN THE TREATMENT OF UA, ERA AND RA PATIENTS FOR 24 WEEKS: A PROSPECTIVE COHORT STUDY

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