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**SAT0189 FACTORS INFLUENCING THE PRESCRIPTION OF TOCILIZUMAB ALONE OR IN COMBINATION WITH DMARDs IN RHEUMATOID ARTHRITIS PATIENTS IN A REAL LIFE SETTING. POOLED ANALYSIS OF 3 OBSERVATIONAL STUDIES**

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**Background:** Tocilizumab (TCZ) as monotherapy (Mono) is nowadays a standard treatment in rheumatoid arthritis (RA) for patients in whom methotrexate (MTX) is inappropriate<sup>1</sup>.

**Objectives:** To describe factors influencing the use of TCZ in Mono or in combination with DMARDs (Combo) in real-life practice in RA patients (pts).

**Methods:** Analysis: pooled data of 3 prospective, multicentre, observational studies (PEPS n=610, Spare-1 n=307, Act-solo n=577). Patients: RA pts requiring TCZ treatment according to their physician. Treatment: TCZ as prescribed in real life. Endpoint: Evaluation of factors influencing the use of TCZ in Mono or in Combo. Data collected: demographic characteristics, past medical history, RA characteristics and history including previous RA treatments, TCZ treatment strategy (Mono or Combo). Statistical analysis: Pts fulfilling inclusion and non-inclusion criteria and with ≥1 TCZ infusion were analyzed. 1- descriptive analysis 2- Univariate and multivariate analysis to determine factors influencing the use of TCZ in Mono. Variables with more than 20% of missing data were excluded from the multivariate model.

**Results:** 1494 pts (3 studies) were analysed at inclusion. Pts' characteristics: 56% of the pts were >55 years old, 79.6% female, mean RA duration 11.1±9.3 years, 83.0% positive for rheumatoid factors and/or ACPA, 77.3% with erosive disease on X-rays, mean ESR 29.9±23.1mm, mean CRP 19.9±26.2 mg/l mean DAS 28-ESR 5.21±1.22, mean HAQ-DI 1.56±0.68, and mean pain VAS 61.5±23.2. Past RA treatment included csDMARDs in 98.5% and biologics in 77.8% (median=2 [1-6]). TCZ was initiated as Mono in 36.4% of pts and in Combo in 63.6%, with MTX in 83.3% of Combo pts (mean dose 15.7±4.4mg/week). Corticosteroids were used in 74% of pts (mean dose 10±7mg/day). Variables associated with a TCZ prescription in Mono were age (≥65 years), number of previous bDMARD, use/dose of steroids, ESR/CRP values, VAS global activity (physician and pt), pain VAS and HAQ-DI. In the multivariate analysis, variables associated with a TCZ prescription in Mono were age ≥65 years (OR=1.71 [1.30 - 2.24], p<0.001), number of previous bDMARD (1 bDMARD, OR=1.35 [0.94 - 1.92], 2 bDMARD OR=1.82 [1.28 - 2.60], ≥2 bDMARD, OR=1.19 [0.82 - 1.71] p=0.006), higher pain VAS (OR=1.09 [1.04 - 1.15], p=0.001), higher ESR value (OR=1.07 [1.02 - 1.12], p=0.013).

**Conclusions:** This pooled analysis suggests that physicians preferably prescribe TCZ alone in older patients, heavily treated before, with higher inflammatory markers and higher pain VAS. This use might be explained by physicians' reluctance to prescribe the association in frailer patients and complementary data on comorbidity factors will be analysed to support this hypothesis.

**References:**

[1] JS. Smolen et al, Ann Rheum Dis doi:10.1136/annrheumdis-2013-204573.

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**SAT0190 ESTIMATE OF CLINICAL AND ANTIDESTRUCTIVE EFFECTS OF RITUXIMAB IN RHEUMATOID ARTHRITIS**

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**Background:** Rheumatoid arthritis (RA) is a chronic inflammatory disease characterized by synovial hyperplasia, mononuclear cell infiltration, bone erosion and joint destruction. Antirheumatic treatment plays a important role in controlling the inflammation of rheumatoid arthritis and in minimizing joint damage. Rituximab - it is a chimeric monoclonal antibody that targets the CD20 molecule expressed on the surface of B cells. It has been successfully used to treat rheumatoid arthritis, and it is worth noting that his antidestructive effect sometimes does not meet the clinical.

**Objectives:** to assess clinical and antidestructive effect of Rituximab (RTX) in patients with rheumatoid arthritis (RA).

**Methods:** 108 patients (pts) with RA, most of them were middle-age women with high disease activity (mean DAS28 6.1±1.04, RF-positive 77%, ACCP-positive 83%) treated with RTX (1000 mgx2 or 500 mgx2). Clinical effect was evaluated by EULAR criteria; radiological progression by SVH method.

**Results:** 104 patients were treated by RTX (500 x2 or 1000 x2), had good response: after 48 week of treatment clinical improvement was achieved in 65% pts, good and moderate response by EULAR criteria in 23% and 42% pts accordingly. Noteworthy, after 12 months of treatment RTX radiological progression was absent in 50% pts with high disease activity.

**Conclusions:** RTX treatment slowed joint damage without clinical improvement. Clinical and antidestructive results did not always coincide which suggests different mechanisms of clinical and antidestructive effects of anti-B-cell therapy

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**SAT0191 PATTERNS OF INTERSTITIAL LUNG DISEASE IN RHEUMATOID ARTHRITIS AND ABATACEPT. MULTICENTER STUDY OF 63 PATIENTS**

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**Background:** Disease modifying antirheumatic drugs (DMARDs) such as methotrexate (MTX), leflunomide (LFN) or antiTNFα have been implicated in development/exacerbation of Interstitial lung disease (ILD) of rheumatoid arthritis (RA). Several radiological patterns of ILD have been described: i) usual interstitial pneumonia (UIP), ii) nonspecific interstitial pneumonia (NSIP), iii) obliterating bronchitis (OB), and iv) Organized pneumonia (OP)

**Objectives:** To assess the response to Abatacept (ABA) in these patterns of ILD

**Methods:** Multicenter study of RA-ILD treated with ABA. ILD was diagnosed by high-resolution CT scan (HRCT) and classified in radiological patterns (Travis et al). We consider 3 subgroups: a) UIP, b) NSIP and c) "other" (OB, OP or mixed). ABA was used at iv or sc standard dose. We assessed: a) Dyspnea (Medical Research Council-modified scale; significant variations≥1); B) Respiratory function tests; significant changes≥10% in forced vital capacity (FVC) and DLCO≤10%, c) HRCT, d) DAS28. A comparative study was performed for the quantitative (U-Mann-Whitney) and qualitative variables (Fisher test) between the baseline and 3, 6 and 12 months.

**Results:** We included 63 patients (27 women/36 men), mean age; 63.1±9.6 years. At ABA onset the RA had a median evolution of 6.8 [2-13.6] years and the ILD of 1 [0.3-3.03]. RA was seropositive in 85.7%. The diagnosis of ILD was confirmed by biopsy (n=18). The ILD was related to DMARDs: MTX (4), etanercept (3), adalimumab (3), certolizumab (2), Infliximab (1), ABA was used in monotherapy (26) or combined with other DMARDs (37); LFN (15), Cyclosporin (1), sulfasalazine (4), MTX (6), hydroxychloroquine (10), azathioprine (4), chloroquine (1). Table 1 shows the evolution in the available cases. A significant improvement in dyspnea and HRCT was observed in the NIU type. DLCO remained stable in most patients regardless of the radiological pattern. The activity of RA (DAS28) also improved.

Table 1

	Baseline			3month			6month			12month		
	UIP	NSIP	Other	UIP	NSIP	Other	UIP	NSIP	Other	UIP	NSIP	Other
MRC (n (%))												
No changes	n=29	n=17	n=17	18 (65.4)	12 (75)	13 (81.3)	17 (70.8)	12 (76.9)	11(73.3)	7 (53.8)	7 (70)	6 (75)
Improvement				9(34.6)**	3 (18.8)	3 (18.7)	5(20.8)*	3 (23.1)	4 (26.7)	3 (23.1)*	3 (30)	2 (25)
Worsening				0	1 (6.2)	0	2 (8.4)	0	0	0	0	0
CVE (n (%))												
No changes	n=27	n=17	n=16	n=12	n=4	n=2	n=5	n=7	n=3	n=10	n=5	n=7
Improvement				10 (83)	3 (75)	2 (100)	5 (83.3)	1 (14.3)	3 (100)	10(100)	3 (60)	2 (28.6)
Worsening				2 (16.7)	0	0	1 (16.7)	4 (57.1)**	0	0	2 (40)	3 (28.6)*
DLCO (n (%))												
No changes	n=23	n=12	n=13	5 (71.4)	4 (100)	1 (50)	3 (60)	2 (66.7)	2 (66.7)	5 (61.6)	2 (66.7)	3 (33.3)
Improvement				2 (28.6)	0	1 (50)	1 (20)	0	0	2 (28.6)	0	2 (5)
Worsening				0	0	0	1 (20)	1 (33.3)	1 (33.3)	0	1 (33.3)	1 (16.7)
HRCT (n (%))												
No changes	n=29	n=17	n=17	n=6	n=3	n=1	n=6	n=5	n=3	n=9	n=5	n=3
Improvement				3 (50)	2 (66.7)	0	3 (50)	2 (40)	2 (40)	4 (44.4)	2 (40)	1 (33.3)
Worsening				2 (33.3)*	1 (33.3)	1 (100)	1 (16.7)	2 (40)	3 (60)*	3 (33.3)*	2 (40)	2 (66.7)*
DAS28 (median)[IQR]	n=29	n=16	n=16	n=7	n=4	n=2	n=5	n=3	n=3	n=7	n=5	n=5
5.3 [4.4-5.3]	5.1 [3.5-5.5]	5.2 [3.8-5.9]	3.0 [2.4-3.4]	3.1 [2.4-3.8]	2.3 [1.9-4.4]*	3.7 [2.4-5.4]	3.1 [2.4-3.9]	3.1 [2.4-3.9]	2.8 [1.3-3.7]*	3.8 [2.5-5.1]*	3.1 [2.3-3.9]	3.1 [2.3-4.9]*
CRP (mg/dl)	n=29	n=14	n=16	n=17	n=5	n=9	n=9	n=14	n=12	n=10	n=14	n=9
3.1 [0.8-7.7]	1.7 [0.4-8.7]	1.7 [0.4-8.7]	1.2 [0.3-5.4]	3.3 [0.9-7.0]	1.5 [0.6-3.9]	1.9 [0.4-10.1]	0.8 [0.4-2.1]*	0.6 [0.5-1.9]*	2.0 [0.8-13.0]	1.5 [0.4-7.6]	1.5 [0.7-4.6]	1.5 [0.7-4.6]
ESR (mm/h)	n=29	n=15	n=16	n=20	n=5	n=9	n=16	n=12	n=10	n=13	n=10	n=10
32 [11-54]	41 [30-66]	26 [16-56]	16 [10-48]	52 [25-55]	19 [10-55]	43 [10-55]	29 [10-55]	29 [10-55]	18 [10-55]	43 [10-55]	31 [10-55]	27 [10-55]
Prednisone (mg)	n=26	n=14	n=14	n=18	n=11	n=8	n=15	n=12	n=9	n=9	n=8	n=8
7.5 [0-11.3]	10.0 [5.0-25.0]	7.4 [4.4-15.0]	5.0 [5.0-10.0]	7.5 [0-25.0]	7.5 [0-13.8]	5.0 [5.0-10.0]	5.0 [2.5-7.5]	5.0 [3.7-8.7]	5.0 [5.0-15.2]	5.0 [3.1-7.7]	3.8 [2.5-6.9]	

The comparisons are with respect to the baseline visit. \* p<0.05; \*\* p<0.01. For the qualitative variables only the variable "improvement" is calculated.