ORAL PRESENTATIONS OP1-OP3

THEMATIC STREAM: INFLAMMATORY ARTHRITIS

OP1. LONG-TERM REMISSION IN DAILY CLINICAL PRACTICE: EXCELLENT 2 YEAR RESULTS WITH TREATMENT TO TARGET IN VERY EARLY RHEUMATOID ARTHRITIS, RESULTS OF THE DREAM REMISSION INDUCTION COHORT

Marloes Vermeer[1], Ina Kuper[1], Monique Hoekstra[2], Hein Bernelot Moens[3], Marcel Posthumus[4], Herman Brus[5], Piet van Riel[6] and **Mart van de Laar**[1]
[1]*Arthritis Centre Twente, University of Twente & Medisch Spectrum Twente, Enschede, The Netherlands,* [2]*Rheumatology, Isala Klinieken, Zwolle, The Netherlands,* [3]*Rheumatology, Ziekenhuisgroep Twente, Almelo/Hengelo, The Netherlands,* [4]*Rheumatology, University Medical Center Groningen, Groningen, The Netherlands,* [5]*Rheumatology, TweeSteden Ziekenhuis, Tilburg, The Netherlands,* [6]*Rheumatology, Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands*

Background: Remission is the primary therapeutic goal in rheumatoid arthritis (RA). Clinical trials have proven that systematic monitoring of disease activity, adjusting medication accordingly and aiming at a predefined target is effective in reaching this goal. However, aiming for remission is not implemented yet. Data on achieving and sustaining remission in daily clinical practice are limited. The objective was to evaluate disease activity in very early RA patients in clinical practice after 2 years of applying a tight control treatment strategy.
Methods: Since January 2006, more than 700 newly diagnosed patients with early RA (symptom duration $\leq$1 year) were enrolled in the DREAM remission induction cohort. Treatment adjustments (4-8 weekly) were based on the DAS28, aiming at DAS28$<$2.6 (initial MTX, addition of SSZ, exchange of SSZ by anti-TNF in case of persistent high disease activity). Primary outcome was the disease activity according to DAS28, EULAR response criteria and modified ACR criteria for remission after 1 and 2 years. Additional measures included sustainability of remission.
Results: Baseline characteristics were as follows: mean (SD) age 57.7 (13.9) years, 62.8% female, 56.6% RF positive, 62.4% anti-CCP positive, median symptom duration 15 weeks, mean (SD) baseline DAS28 5.0 (1.1) and 82.8% of patients fulfilled the ACR classification criteria for RA. Table 1 presents the clinical outcomes after 1 year (n = 392) and 2 years (n = 210) of follow-up. In 60% of patients sustained DAS28 remission ($\geq$6 months) was observed during the first 2 years of follow-up. The majority of patients achieved remission on conventional DMARDs.
Conclusions: Long-term remission is a realistic goal in very early RA patients in clinical practice. Implementation of a tight control treatment strategy results in high remission rates. The management of very early RA patients in clinical care can go beyond the control of signs and symptoms, and should aim at remission.
Disclosure statement: M.V. received an unrestricted educational grant from Abbott, The Netherlands. All other authors declared no conflicts of interest.

Table 1. Clinical outcomes after 1 and 2 years

	1 year n = 392	2 year n = 210
Disease activity according to the DAS28B		
Remission (DAS28<2.6)	216 (55.1)	135 (64.3)
Low (2.6≤DAS28≤3.2)	62 (15.8)	37 (17.6)
Moderate(3.2<DAS28≤5.1)	103 (26.3)	32 (15.2)
High (DAS28>5.1)	11 (2.8)	6 (2.9)
EULAR response		
Good	254 (64.8)	159 (75.7)
Moderate	102 (26.0)	35 (16.7)
None	36 (9.2)	16 (7.6)
ACR remission	143/317 (45.1)*	93/171 (54.4)*

Values are presented as number (%). *ACR remission could not be evaluated in all patients, due to missing values for morning stiffness.

THEMATIC STREAM: SYSTEMIC AUTOIMMUNE DISEASE

OP2. SPLEEN TYROSINE KINASE INHIBITION PREVENTS TISSUE DAMAGE AFTER ISCHAEMIA REPERFUSION INJURY

Omer Nuri Pamuk[1,2], Peter H. Lapchak[1], Poonam Rani[1], Polly Pine[3], Jurandir J. Dalle Luca[4] and George C. Tsokos[1]
[1]*Division of Rheumatology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, USA Division of Rheumatology,* [2]*Trakya University Medical School, Edirne, Turkey,* [3]*Rigel Pharmaceuticals, South San Franscisco, CA, USA,* [4]*Department of Cellular Injury, Walter Reed Army Institute of Research, Silver Spring, MD, USA*

Objectives: Spleen tyrosine kinase (Syk) is responsible for membrane-mediated signaling in various cell types including B lymphocytes, macrophages and T cells. We investigated the ability of a small drug Syk inhibitor, R788, to protect mice against mesenteric ischemia/reperfusion (I/R)-induced local (intestine) and remote lung injury.
Methods: Eight-week-old C57Bl/6 mice were used. Syk inhibitor (R788) was given to mice p.o. ad libitum (3 g/kg or 5 g/kg dose, 6 days). We applied an established intestinal IR model We evaluated intestinal and remote organ (lung) injury based on histological score. We also evaluated tissue syk, phospho-syk, C3, platelets, IgG, IgM and GR-1 levels by immunohistochemistry and IFS.
Results: Syk inhibitor therapy reduced intestinal injury score (Table 1, Figure 1).

Syk staining in intestine and lung were more intensive in IR groups than in Sham. Syk inhibition did not cause any changes any changes in Syk staining in neither the intestine nor the lung tissue.

We observed some scanty p-syk staining in IR group. Syk inh therapy attenuated p-syk staining.

There was some degree of more staining in IR intestinal and lung samples. Syk inhibition reduced IgM staining.

When compared to the sham groups, IR mice had prominent C3 deposition in the intestine.

Syk inhibition decreased C3 staining in IR group

There was significant deposition of C3 in the lungs of IR mice. Anti-Syk limited C3 deposition in the lung.

IR mice had more prominent GR-1 staining within the intestine and lung when compared sham. Syk inhibition prevented IR-induced PMN infiltration.
Conclusions: Our data place Syk upstream of events leading to the binding of natural antibodies to the ischemia-conditioned tissues and urge the consideration of the use of Syk inhibitors in the prevention or improvement of tissue injury of organs exposed to ischemia or hypoperfusion.

Groups	Intestinal injury score (0-6) (mean ± SD)
Control Chow-IR	**2.43 ± 0.6***
Control Chow-Sham	0.32 ± 0.08
Mouse Chow- IR	**2.7 ± 0.9***
Mouse Chow-Sham	0.44 ± 0.1
Anti-Syk-3 IR	0.58 ± 0.1
Anti-Syk-3 Sham	0.42 ± 0.3
Anti-Syk-5 IR	0.98 ± 0.2

(*) $p < 0.01$, Chow (Control and Mouse)-IR groups are different from other groups