Abstract AB0282 – Table 1

6 Patients who maintain target once reducing dose tofacitinib to 5 mg bid						
Patients	CDAI BSL	CDAI target on 10 mg bid	CDAI 3 months on 5 mg bid	CDAI 6 months on 5 mg bid		
003	45.9	2.6	7.2	8.2		
004	65.2	4.4	4.7	0.1		
005	56.1	3.6	9.4	2.6		
007	27.9	2.3	1.7	2.6		
012	25.3	5.1	6.4	9.3		
014	21.6	1.4	8.5	3.2		
3 Patients who could not maintain target at 5 mg bid tofacitinib and were increased to 10 mg bid						
Patients	CDAI BSL	CDAI target on 10 mg bid	CDAI 3 months on 5 mg bid	CDAI 3 months on 10 mg bid	CDAI 6 months on 10 mg bid	CDAI 9 months on 10 mg bid
008	34.3	9.2	19.2 inc dose	2.6	2.5	
018	31.8	2.5	16.2 inc dose	11.9	8.3	
019	27.3	8.9	9.7	11.9 inc dose	1.9	2.7

Conclusions: This study confirms the previous findings that 10 mg bid of tofacitinib may be the effective dose needed for some patients with active RA to reach treatment target.⁽¹⁾ It also suggests that there is an opportunity to reduce the escalated dose back down to the standard dose once a target response is achieved. This in many ways is similar to the clinical use of other drugs used to treat RA including corticosteroids, MTX and biologics where dose adjustment may well increase the therapeutic benefit of the molecule and allow subsequent dose adjustments to maintain efficacy with a lower adverse event profile. Additional studies will be needed to test the results found in this trial.

REFERENCES:

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Disclosure of Interest: None declared

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AB0283 INDICES OF ANTIBODIES TO FIBRONECTIN ASSOCIATED WITH CLINICAL MANIFESTATIONS OF RHEUMATOID ARTHRITIS

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Background: According to available data, fibronectin (FN) is implicated in progressing cartilage destruction in arthritis of varying etiology. It is established that it is not native FB that has the ability to enhance the expression of chondrocyte catabolism gene thus causing. Antibodies enhance both resorption and synthesis of osseocartilaginous tissue; they affect proteoglycan and glycosaminoglycan production in connective tissue, and also block active centres of FN molecule.

Objectives: Determining the level of FN antibodies using fibronectin-based magnetocontrollable immobilised adsorbents is an additional criterion of rheumatoid arthritis disease activity. Demonstrating the FN indices and its antibodies in blood serum of healthy individuals, and in that of RA patients depending on the disease activity. Demonstrating that the level of FN antibodies in the blood serum of RA patients reliably differs from that of healthy people.

Methods: 117 RA patients receiving hospital treatment at Municipal hospital 25 of Volgograd were examined. The patients' mean age was 49.9±13.9. The mean duration of disease was 9.1±1.57 years. Low (I) disease activity was noted in 14 patients (12%), moderate (II) – in 66 (56.4%), and high (III) – in 37 (31.6%) patients with RA. According to the degree of articular dysfunction the patients were classified in the following way: 11 patients (9.4%) showed articular insufficiency functional class II (intact occupational ability), 87 patients (74.41%)

showed insufficiency functional class III (lost occupational ability), and 19 patients (16.2%) showed insufficiency functional class IV (lost autonomy).

The articular syndrome underlies all clinical presentations of RA. In most patients (102 individuals, 87.2%) RA took the form of polyarthritis; in the remaining 15 people (12.8%) oligoarthritis was noted. 107 patients (91.5%) showed hand joint involvement, 99 (71.8%) – knee joints, 71 (60.7%) – talocrural joints, 61 (52.1%) – elbow joint, 49 (41.9%) – shoulder joints, and 37 patients (31.6%) showed foot joint involvement. Serum from 30 apparently healthy individuals, donors from the regional hemotransfusion centre in Volgograd, was used as control.

The FN antibody titer was determined using an original technique: enzyme immunoassay with FN-based immobilised granulated antibodies with magnetic properties.

Results: The mean FN content in the plasma of healthy people was 351.0 ±65.1 mcg/ml. The mean concentration of specific antibodies in donor sera was 0.031±0.0029 optical density units. An elevated concentration of plasma FN was detected in 39 RA patients (33.3%). The mean concentration of serum antibodies to FN in RA patients was 0.095±0.014 optical density units, which exceeded the values in the control group (p<0.05). An elevated content was noted in 49 patients (41.9%).

Conclusions: A correlation analysis revealed a positive association between FN antibody concentration, and parameters of ESR (r=0.27, p<0.03), and circulating immune complex (r=0.43, p<0.05), as well as indices indicating the degree of exudative-inflammatory process in the joints, and the extent of pain syndrome (DAS score of 28, articular index, pain score, swelling index) (p<0.05).

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AB0284 RELATIONSHIP OF BIOMARKERS, ULTRASOUND (US) SIGNS OF JOINT DAMAGE AND RADIOGRAPHIC PROGRESSION IN PATIENTS WITH RHEUMATOID ARTHRITIS(RA)

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Background: Rheumatoid arthritis (RA) is a chronic inflammatory immune-mediated disease, based on the imbalance of biomarkers, leading to the appearance of inflammatory changes in the joints, the progression of bone and cartilage destruction.

Objectives: to identify the relationship between cytokines, their dynamic changes, ultrasound (US) signs and radiologic progression in 12 month prospective study in patients RA.

Methods: 35 patients (median age 55.0 [48.0; 64.0] years) with early RA use MTX and/or biologic therapy in accordance with the treat-to-target concept. Serum cytokine concentrations were determined using the xMAP multiplexing technology baseline, 3 and 6 months after the start of therapy. US with grey scale (GS), power Doppler (PD) and destructive changes (erosion), according to the criteria of OMERACT, were performed baseline, 3, 6, 9 and 12 months after the start of therapy. We analysed absolutely levels and their changes(Δ). X-ray examination was conducted baseline and at 12 month of therapy with an assessment of X-ray changes by Sharp van der Heijde scores (ΔSHS).

Results: Levels of proinflammatory cytokines (IL1β, IL6, IL12, IL15, TNFα) decreased by 3 month. Significant differences in PD-group at the end of observation were revealed only for IL6 and TNFα, and with X-ray progression – for ΔIL17 level at 6 month.

At baseline a positive correlation was found between PD and levels of IL1β (r=0.34), IL6 (r=0.42). We found correlation between PD at 12 month and ΔIL1β by 6 month, ΔTNFα by 3 month. In the PD-group concentration of IL6 baseline was significantly higher: 75.2 (37.9; 101.7) vs 38.7 (19.2; 59.6); by 6 month level of TNFα in this group also higher: 67.6 (34.3;125.5) vs 38.8 (21.9; 67.2). Radiographic progression was detected in 6 of 35 RA patients; this group was with PD and destructive change by US was significantly higher.

We found correlation between ΔIL17 and ΔFGF levels at 3 month with PD at 3 month: r=0.57 p=0.001 and r=0.52 p=0.004, respectively. Also we found significantly correlation between ΔIL17 and ΔFGF at 3 month and ΔIL17 at 6 month with the X-ray examination: the sum of erosions, the sum of the narrowing of the joints and the total score (for IL17 at 3 month r=0.43 p=0.01, r=0.51 p=0.0018, r=0.52 p=0.001, respectively, for the FGF at the 3 month r=0.37 p=0.03, r=0.41 p=0.014, r=0.41 p=0.014, respectively, for IL17 at 6 month r=0.38 p=0.024, r=0.39 p=0.019, r=0.4 p=0.016, respectively).

Conclusions: The revealed relationship of active synovitis by US, X-ray progression and biomarkers of inflammation in RA confirm the role of ultrasound as a method of independent evaluation of the course and outcomes of the disease.

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