board-certified echocardiographer. Affection of coronary territories was compared between groups using longitudinal strain by speckle tracking according to the European Society of Cardiology and the American Society of Echocardiography recommendations.

Results: A total of 53 RA-patients and 24 control subjects were included. Demographic characteristics for each group are shown in table 1. There was no statistical difference in global longitudinal strain between RA-patients and controls (-20.86±2.82 vs -21.19±2.46, p=0.62). Comparison of longitudinal strain values of the three vascular territories evaluated between RA-patients and controls did not reach statistical difference (Table 2).

Table 1. Demographic characteristics

	RA group (n=53)	Control group (n=24)	*p*
Age, mean ± SD	55.54±9.11	52.81±6.61	0.172
Women, n (%)	51 (96.2)	26 (96.3)	0.988
Body Mass Index, mean ± SD	27.53±5.85	28.05±4.66	0.956
Hypertension, n (%)	18 (33.96)	5 (18.5)	0.149
Type 2 Diabetes mellitus, n (%)	7 (13.2)	4 (14.8)	0.844

Table 2 – Variable comparison

	RA group (n=53)	Control group (n=24)	*p*
Global Longitudinal Strain, mean ± SD	-20.86 ± 2.82	-21.19 ± 2.46	0.620
Anterior descendent territory, mean ± SD	-21.16 ± 3.13	-21.64 ± 2.91	0.510
Circumflex territory, mean ± SD	-20.12 ± 3.28	-21.09 ± 3.1	0.207
Right coronary territory, mean ± SD	-18.98 ± 2.38	-18.79 ± 2.37	0.735

Conclusions: Contrary to previous published evidence (1, 2), there was no statistical difference in global longitudinal strain between RA patients and controls. Coronary territories are not affected in RA patients in comparison with controls. Further studies with a larger cohort are necessary to determine the usefulness of strain in the evaluation of subclinical cardiovascular disease.

References:

[1] Fine et al. Evaluation of myocardial function in patients with rheumatoid arthritis using strain imaging by speckle-tracking echocardiography, Ann Rheum Dis. 2014 Oct;73(10):1833–9.
[2] Sitia S, Tomasoni L, Cicala S, et al. Detection of preclinical impairment of myocardial function in rheumatoid arthritis patients with short disease duration by speckle tracking echocardiography. Int J Cardiol 2012;160:8–14.
[3] Batir et al, Herz. 2015 Jun;40(4):669–74. Preclinical impairment of myocardial function in rheumatoid arthritis patients. Detection of myocardial strain by speckle tracking echocardiography.

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THU0141 CAN WE PREDICT THROMBOTIC TENDENCY IN RHEUMATOID ARTHRITIS: A THROMBOELASTOGRAPHIC ANALYSIS

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Background: Arterial and venous thromboembolism were proven to be increased in cases with rheumatoid arthritis (RA) (1). It would be interesting to predict thrombosis in these patients by a laboratory test. Rotational thromboelastography (ROTEM) is a viscoelastometric clotting test to evaluate the kinetics of clot formation and fibrinolysis which provides global information on cellular and soluble procoagulant/anticoagulant protein interactions.

Objectives: Our aim was to determine the thrombosis predisposition in RA patients by thromboelastography and to identify the possible clinical and laboratory risk factors for thrombotic tendency in RA patients.

Methods: 85 RA patients (mean age: 54.12±13 yrs; female: 66 (77.6%) diagnosed based on 2010 ACR/EULAR classification criteria were sequentially recruited. Patients were receiving either conventional synthetic disease modifying antirheumatic drugs (csDMARD) or were receiving biological treatments. Age- and gender matched 35 healthy individuals were enrolled as a control group. Complete blood count (CBC), erythrocyte sedimentation rate (ESR), and C-reactive protein (CRP) levels were measured and DAS-28 scores were calculated. ROTEM was applied at the same time and clotting time (CT, seconds), clot formation time (CFT, seconds), and maximum clot firmness (MCF, mm) were determined. A shorter CT and/or CFT values and/or a higher MCF levels imply tendency towards hypercoagulability.

Results: RA patients with a higher disease activity were found to have a shorter I-CFT and a higher I-MCF (p values p=0.020, p=0.033, respectively). Correlation analysis revealed shorter I-CFT and E-CFT and higher I-MCF and E-MCF in those with more active disease, hence indicating a higher tendency to thrombosis. DAS-28 score, high level of CRP, and increased platelet count were identified as variants affecting thromboelastography in favor of thrombosis susceptibility.

Conclusions: Disease activation in RA patients may lead to hypercoagulability, independent of the ongoing medication of patients. Considering the fact that the predictive value of ROTEM parameters for further thrombosis, additional studies are needed whether pro-thrombotic state in RA may herald thrombosis in the presence of inflammation.

References:

[1] Mameli A, Barcellona D, Marongiu F. Rheumatoid arthritis and thrombosis. Clin Exp Rheumatol. 2009;27:846–55.

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THU0142 MATRIX METALLOPROTEINASE-3 AND ANTIBODIES (IGG) AGAINST OXIDIZED LOW-DENSITY LIPOPROTEIN LEVELS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is associated with an unexplained increased cardiovascular risk. Matrix metalloproteinase-3 (MMP-3) is the most important protease involved in RA inflammation which may play a role in the development of cardiovascular events. Antibodies against oxidized low-density lipoprotein (oxLDL) are known to be involved in the development of inflammation and atherosclerosis. Specific role of MMP-3 and antibodies against oxLDL in cardiac pathology in RA patients (pts) is not well investigated.

Objectives: To compare MMP-3 and oxLDL-IgG antibody levels, as well as lipid profiles in pts with active RA and healthy controls.

Methods: Thirty nine RA pts (33 women and 6 men, median age 56,5 [49; 65] years), with active arthritis (mean disease duration 96 [48; 190] months; DAS28 5,8 [5,3;6,3]; HAQ 1,8 [1,3; 2,2]) were enrolled in the study. Twenty three pts (59%) received methotrexate, 5 (13%) – the combination of methotrexate with oral glucocorticoids, 10 (26%) - oral glucocorticoids monotherapy.

The control group consisted of 29 volunteers (21 women and 8 men, median age 58,5 [53; 62] years). Serum MMP-3 and oxLDL-IgG levels were measured by enzyme-linked immunosorbent assay (ELISA).

Results: Elevated MMP-3 levels were detected more frequently in RA pts (31/39 (79%)) vs healthy controls (2/29 (7%), $p<0,0001$). MMP-3 concentrations were higher in RA pts (57,0 [36,6; 114,3ng/ml), than in the control group subjects (13,4 [9,9; 20,4]mg/ml, $p<0,0001$). MMP-3 levels demonstrated significant correlation with ESR ($r=0,64$, $p<0,05$) and CRP ($r=0,52$, $p<0,05$) values.

OxLDL-IgG levels in RA pts and healthy controls did not differ significantly (290,3 [111,3; 608,6] mU/ml, and 228,1 [125,1; 338,8] mU/ml, respectively $p>0,05$). Rates of dyslipidemia were similar in RA pts (23/39 (59%) and control group subjects (15/29 (52%). Concentrations of lipids were also similar in both groups and were as follows: total cholesterol was 5,2 [4,9; 6,2] mmol/l in RA pts and 6,3 [5,1; 6,6] mmol/l in the control group; HDL cholesterol - 1,7 [1,4; 2,0] mmol/l and 1,7 [1,5; 2,1] mmol/l, LDL cholesterol - 3,3 [2,8; 4,0] mmol/l and 3,6 [3,0; 4,0] mmol/l, triglycerides - 1,3 [1,0; 1,6] mmol/l and 1,4[1,1; 1,8] mmol/l, the atherogenic index of plasma - 2,4 [1,8; 2,8] and 2,4 [1,9; 3,0], respectively. Showed no correlation between the levels of oxLDL-IgG and lipids in both groups. In the RA group, concentrations of HDL cholesterol were negatively correlated with MMP-3 ($r=-0,5$, $p<0,05$), C-reactive protein ($r=-0,53$, $p<0,05$), and DAS28 ($r=-0,4$, $p<0,05$).

Conclusions: RA pts exhibited higher serum MMP-3 levels than healthy individuals. OxLDL-IgG levels were similar in RA pts and healthy subjects. Obtained results suggest that MMP-3 and CRP may produce a negative impact on HDL-cholesterol levels in patients with active RA.

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THU0143 CHOLESTEROL EFFLUX CAPACITY OF HDL IS OTHERWISE IMPROVED BY DIFFERENT BIOLOGIC-DMARDS IN RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) patients have an increased mortality for cardiovascular (CV) events, not completely explained by impaired cholesterol levels or other traditional CV risk factor (1). Target therapy with effective control of systemic inflammation have been demonstrated to improve articular outcomes, but the effect on CV risk is still under investigation (2). The ability of high-density lipoprotein (HDL) to accept cholesterol from macrophages (HDL cholesterol efflux capacity; HDLc-EC) is a key step in reverse cholesterol transport, with significant consequences on incident atherosclerotic CV disease (3), but this marker in RA have still alternate evidence (4,5).

Objectives: To assess the effects of different biological DMARDs on HDLc-EC in RA