POS0528

SCORES OF CARDIOVASCULAR RISK CALCULATORS AS PREDICTORS OF EARLY ATHEROSCLEROSIS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Rheumatoid arthritis (RA) is a systemic inflammatory disease leading to significant increase in cardiovascular morbidity and mortality. Development of cardiovascular diseases (CVD) in RA patients is associated with the accumulation of traditional risk factors and immunological disorders. Carotid Artery Doppler Ultrasound (DUS) Exam is the gold standard to identify early atherosclerosis.

Objectives: To evaluate the cardiovascular risk and analyze its relationship with detection of early carotid artery atherosclerotic lesion in patients with rheumatoid arthritis (RA).

Methods: One hundred and nine RA patients (female/male 93/16), aged 45 to 60 without established CVD were included in the study. The median age was 52 [48; 54] years, duration of RA was 120 [36; 204] months, DAS28 was 4,7 [3,5; 5,6] points. 54% (n=59) of patients received methotrexate (median dose 20 [15;27]mg/week), 12% - leflunomide (20mg/day), 12% - sulfasalazine (2000mg/day), 40% - glucocorticoids (median dose 4 [2;8]mg/day), 44% - non-steroidal anti-inflammatory drugs. None of study participants had biologics or statins in their therapeutic regimens at the time of inclusion. CVD risk was calculated with mSCORE, RRS, ASSIGN, QRISK3, ERS-RA scales and results of Carotid Artery DUS imaging in all patients.

Results: Traditional risk factors were highly among RA patients without CVD, including: arterial hypertension - in 73%, dyslipidemia - 68%, overweight - 53%, family history of CVD - 43% and smoking - 39% patients. A combination of three traditional risk factors was found in 60% of patients with RA, and combination of two - in 25%. High risk was found in 5, 5, 14, 6, and 38% of patients according to mSCORE, RRS, ASSIGN, QRISK3, ERS-RA scales, respectively. Carotid atherosclerotic plaques were found in 30% of patients, more often in men (48%) than in women (28%, p=0,049), with similar prevalence regardless RA activity or stage of disease. Positive correlations of carotid intima-media thickness were established with scores of all CVD risk calculators: mSCORE (R = 0,50), RRS (R = 0,40), ASSIGN (R = 0,40), QRISK3 (R = 0,36), ERS-RA (R = 0,26), p < 0,05 in all cases, as well as with age (R = 0,41; p = 0,04), the level of total cholesterol (R = 0,23; p = 0,01), systolic blood pressure (R = 0,66; p = 0,02), diastolic blood pressure (R = 0,33; P = 0,03), erythrocyte sedimentation rate (R = 0,26; p = 0,04), IL-6 levels (R = 0,65; p = 0,01). The sensitivity and specificity of the CVR algorithms in prognostication of atherosclerotic carotid artery lesions were 73 and 67% for mSCORE, 64 and 63% for RRS, 64 and 56% for ASSIGN, 73 and 49% for QRISK3, respectively, p<0.05 in all cases, 67 and 50% for ERS-RA, p=0,06.

Conclusion: RRS, mSCORE, ASSIGN, QRISK 3 calculators equally predicted the presence of carotid atherosclerotic plaques in RA patients. The optimal ratio of specificity and sensitivity is shown for the mSCORE scale. Stratification of CVR in RA patients should include assessment of the carotid intima-media thickness. mSCORE calculation and carotid intima-media thickness were the most informative methods identify CVR assessment in RA patients.

Disclosure of Interests: None declared

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POS0529

ANTI-TNF AND METHOTREXATE PROTECT AGAINST RHEUMATOID ARTHRITIS ATHEROSCLEROSIS

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Objectives: To analyze the effect of different anti-rheumatic treatments on the carotid intima-media thickness (cIMT) in patients with Rheumatoid Arthritis (RA).

Methods: Controlled cross-sectional observational study of a cohort of patients with RA. 146 patients with RA (ACR/EULAR2010).cIMT was measured by semi-automatic carotid ultrasound. Other variables: atheroma plaques, bilateral plaques, DAS28-VSG, lipid metabolism, apoB, apoA1, apoB/apoA1, uric acid, homocysteine. Biological or conventional synthetic disease-modifying

antirheumatic drug therapy (bDMARDs/csDMARDs), glucocorticoids. Descriptive, bivariate, Spearman's test and multivariate model were constructed to identify factors associated with cIMT.

Results: The baseline characteristics are shown in Table 1. Significant positive correlation was found between cIMT and apoB (r=0.22; p=0.014), apoB/apoA1 (r=0.18; p=0.044), cholesterol (r=0.23; p=0.006), triglycerides (r=0.21, p=0.013), uric acid (r=0.26; p=0.009), age (r=0.65, p>0.001), RF (r=0.16, p=0.05) homocysteine (r=0.5, p<0.001), BMI (r=0.19, p=0.023), CRP (r=0.18, p=0.032) and negative correlation with anti-TNFα treatment time (r=-0.20, p=0.02). Patients receiving bDMARDs alone or combined with csDMARDs had less cIMT than those taking only csDMARDs [median (IQR): 0.54 (0.50-0.63), 0.57 (0.53-0.65) and 0.65 (0.53-0.75); p=0.046]. The factors associated with cIMT were age (β=0.007, p<0.001), anti-tnf-α treatment ever (β=-0.06, p=0.027) and methotrexate treatment ever (β=-0.07, p=0.08).

Table 1. Baseline characteristics

Variables	RA n=146
Epidemiological characteristics and comorbidities	
Age (years), mean (SD)	55.9 (13.1)
Female sex; n (%)	112 (76.7)
Smoker, n (%)	30 (21.6)
Arterial hypertension, n (%)	45 (30.8)
Diabetes mellitus, n (%)	5 (3.4)
Previous Cardiovascular disease, n (%)	10 (14.6)
Hyperlipidemia, n (%)	46 (31.5)
BMI (kg/m ²), median (IQR)	26.8 (23.4-29.7)
Clinical-laboratory characteristics	
Disease duration, years, median (IQR)	6.77 (2.2-14.2)
Erosions, n (%)	53 (36.6)
RF positive, n (%)	119 (81.55)
ACPA positive, n (%)	123 (84.2)
CRP (mg/dl), median (IQR)	4.8 (1.6-11.5)
ESR (mm/h), median (IQR)	12 (6-24)
DAS28 at protocol, median (IQR)	2.8 (2.1-3.7)
HAQ, mean (SD)	0.78 (0.6)
ApoB (mg/dl), mean (SD)	86.8 (21.8)
ApoA1 (mg/dl), mean (SD)	149.8 (32.7)
Cholesterol (mg/dl), mean (SD)	198.7 (37.3)
cLDL (mg/dl), mean (SD)	119.3 (30.3)
cHDL (mg/dl), median (IQR)	56 (47-70)
Triglycerides (mg/dl), median (RIQ)	92 (73-121)
Homocysteine (mg/dl), median (RIQ)	2.08 (1.7-2.8)
cIMT mean (mm), median (IQR)	0.6 (0.53-0.7)
Atherosclerotic plaques, n (%)	51 (34.9)
Bilateral plaques, n (%)	22 (15.1)
Anti-rheumatic treatment	
Synthetic DMARDs ever, n (%)	146 (100)
Methotrexate ever, n (%)	132 (90.4)
Time with methotrexate (years), median (IQR)	4.4 (1.04-9.5)
Leflunomide ever, n (%)	83 (56.8)
Sulfasalazine ever, n (%)	13 (8.9)
Hydroxychloroquine ever, n (%)	99 (67.8)
Biological DMARDs ever, n (%)	76 (52.05)
Anti TNFα ever, n (%)	47 (32.2)
Time with anti-TNFα (years), mean (SD)	1.18 (2.8)
Jak inhibitor ever, n (%)	10 (6.8)
Anti-IL-6 ever, n (%)	28 (19.2)
Rituximab ever, n (%)	15 (10.3)
Glucocorticoids at protocol, n (%)	82 (56.5)
Glucocorticoids dose at protocol (mg), median (IQR)	5 (0-5)

Abbreviations: RF: rheumatoid factor; ACPA: anti-citrullinated peptide antibodies, cIMT: carotid intima media thickness; ApoB: apolipoprotein B, ApoA1: apolipoprotein A1, LDL: low-density lipoprotein; HDL: high-density lipoprotein; DAS28: 28-joint Disease Activity Score; HAQ: Health Assessment Questionnaire; CRP: C-reactive protein; ESR: erythrocyte sedimentation rate; IL-6: interleukin 6; Anti TNF, anti-tumor necrosis factor

Conclusion: biological disease-modifying antirheumatic drug therapy, in particular Anti TNFα, could protect against the development of atherosclerosis in RA

Disclosure of Interests: None declared

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POS0530

HOW DOES MULTIMORBIDITY IMPACT ON THE DIRECT AND INDIRECT COSTS IN PATIENTS WITH RHEUMATOID ARTHRITIS?

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Background: Comorbidities are prevalent in patients with rheumatoid arthritis (RA) and associated with worse outcomes as well as higher economic burden. Little is known about the impact of multimorbidity on the direct and indirect costs