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**AB0205 CAROTID INTIMA-MEDIA THICKNESS LINKED TO THE PRESENCE OF CARDIOVASCULAR RISK FACTORS IN MEXICAN MESTIZO PATIENTS WITH RHEUMATOID ARTHRITIS**

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**Background:** Rheumatoid Arthritis (RA) is associated to subclinical atherosclerosis. Traditional risk factors for cardiovascular outcomes do not explain completely the higher risk, which could be caused by chronic systemic inflammation.

**Objectives:** The aim of this study is to relate abnormal carotid intima-media thickness (CIMT) to the presence of cardiovascular risk factors.

**Methods:** Observational cross-section design. We included patients who fulfilled the 1987 ACR and/or 2010 ACR/EULAR classification criteria for RA, 40 to 75 years old, with no personal history of atherosclerotic CV disease. A board-certified radiologist performed carotid duplex ultrasounds. Patients were distributed in two groups according to the absence (Group 1) or presence (Group 2) of traditional risk factors for cardiovascular disease (smoking status, dyslipidemia, high blood pressure and diabetes).

**Results:** A total of 82 patients were included. Demographic characteristics for each group are shown in Table 1. Ultrasound findings are shown in Table 2. CIMT alterations were more common in Group 2 (66.7%) than in Group 1 (38.7%), with statistical significance ( $p=0.013$ ). Presence of carotid plaque was more common in Group 2 (27.5%) than in Group 1 (16.1%), shown clinical relevance, although did not shown statistical significance ( $p=0.18$ ).

Table 1. Demographic characteristics

Variable	Total	Group 1 (n=31) (CVRF-)	Group 2 (n=51) (CVRF+)	P
Patients, n (%)	82 (100)	31 (37.80)	51 (62.20)	–
Female gender, n (%)	77 (93.9)	29 (93.5)	48 (94.1)	0.0917
Age (years), mean ± SD	57±9.96	51.90±8.43	59.82±9.69	<b>0.001</b>
Disease duration (years), mean ± SD	12.45±8.39	11.74±8.76	12.89±8.32	0.554
BMI (kg/m <sup>2</sup> ), mean ± SD	28.22±4.9	29.05±5.09	27.72±4.92	0.248
Smoking status, n (%)	8 (9.75)	–	8 (15.68)	–
Diabetes, n (%)	13 (15.85)	–	13 (25.49)	–
HBP, n (%)	28 (34.14)	–	28 (54.90)	–
Dyslipidemia, n (%)	8 (9.75)	–	8 (15.68)	–

CVRF: Cardiovascular Risk Factors, HBP: High Blood Pressure.

Table 2.- Carotid ultrasound findings

	Total n=46	Group 1 (CVRF -) n=12	Group 2 (CVRF +) n=34	p
Abnormal CIMT, n (%)	46 (56.1)	12 (38.7)	34 (66.7)	<b>0.013</b>
Plaque, n (%)	19 (23.2)	5 (16.1)	14 (27.5)	0.18
Bilateral, n (%)	12 (14.6)	1 (3.2)	11 (21.6)	<b>0.02</b>
Hypertrophy, n (%)	28 (34.1)	7 (22.6)	21 (41.2)	0.068
Bilateral, n (%)	12 (14.6)	2 (6.5)	10 (19.6)	0.091

CVRF: Cardiovascular Risk Factors

**Conclusions:** In this cohort of Mexican patients with RA, we demonstrate relation between the presence of alterations in CIMT (carotid hypertrophy and carotid plaque) and risk factors for cardiovascular disease, which can be enhanced by intrinsic risk of RA. These findings reaffirm the importance of global health assessment in patients with RA to reduce morbidity.

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**AB0206 INTERLEUKIN-17 AND CC-CHEMOKINE LIGAND 20 ARE NOT USEFUL MARKERS OF RHEUMATOID ARTHRITIS ACTIVITY IN PATIENTS UNDERGOING BIOLOGIC TREATMENT**

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**Background:** Interleukin-17 (IL-17) and IL-17-induced CC-chemokine ligand 20 (CCL20) are increasingly implicated in the pathogenesis of rheumatoid arthritis (RA). A correlation has been reported to exist between serum levels of IL-17 and CCL20 and the disease activity following biologic treatment [1]. However, such an effect has not been universally demonstrated [2].

**Objectives:** The aim of the present study was to investigate if serum IL-17 and CCL20 reflect activity of the disease and whether they could be of prognostic value for predicting therapeutic response to biologic therapy in RA.

**Methods:** Thirty RA patients qualified to receive biologic treatment were prospectively assessed before and 12 weeks of therapy with either TNF $\alpha$  inhibitors or anti-IL-6 receptor antibodies. Serum concentrations of IL-17 and CCL20 were measured with high sensitivity ELISA with estimated detection levels 0.01 pg/ml and 0.47 pg/ml, respectively. Successful response to therapy was defined by the EULAR criteria.

**Results:** The patient baseline characteristics were summarized in Table 1.

Table 1. Patient characteristics: data presented as the mean  $\pm$  SD or %

Age (years)	54.3 $\pm$ 11.5
Sex (% of male)	4 (13%)
Disease duration (years)	9.6 $\pm$ 6.0
Prednisone (<5 mg/24h) (%)	17 (57%)
NSAIDs (%)	22 (73%)
Methotrexate (%)	12 (40%)
Biologic treatment (%)	– TNF $\alpha$ inhibitors (adalimumab, certolizumab, golimumab, infliximab): 22 (73%)
	– IL-6R blocker (tocilizumab): 8 (27%)

Twelve weeks of biologic treatment resulted in a significant improvement in the majority of the patients with only 2 patients (7%) identified as non-responders. The favorable response to therapy was reflected both by clinical and standard biochemical criteria (Table 2). However, the mean serum concentrations of IL-17 and CCL20 did not change significantly over the course of therapy and they did not correlate with the disease activity, response to therapy, the type of biologic intervention and other medication used.

Table 2. Selected parameters before and after treatment: data presented as the median (interquartile range)

	Before treatment (n=30)	After 12-weeks of treatment (n=30)	P-value (Wilcoxon test)
DAS28 (ESR)	5.53 (5.26–6.08)	3.23 (2.19–3.75)	<0.001
ESR (mm/h)	24.0 (16.0–32.0)	10.0 (4.0–20.0)	<0.001
CRP (mg/l)	7.37 (2.3–15.8)	0.8 (0.1–5.5)	<0.001
WBC (10 <sup>9</sup> /l)	9.0 (7.6–9.9)	7.8 (6.6–9.6)	0.014
IL-17 (pg/ml)	0.65 (0.00–5.81)	0.53 (0.00–4.45)	0.355
CCL20 (pg/ml)	22.0 (18.0–28.0)	22.5 (20.0–31.0)	0.322

Serum IL-17 and CCL20 levels showed no correlation with DAS28, and standard inflammatory markers.

**Conclusions:** Serum levels of IL-17 and CCL20 did not parallel changes in the clinical status and standard biochemical parameters in patients undergoing biologic treatment for RA. Thus, the measurement of IL-17 and CCL20 in serum does not seem to provide additional information that would help to monitor the response to biologic treatment in RA more effectively.

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