■ ASJC28 ■ Pain ■ Unexplained

Figure 1. Graph 1 – Explicative model to variations on PhGA

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AB0224

ASSOCIATIONS BETWEEN JOINT REPLACEMENT HISTORY AND CYCLIC CITRULLINATED PEPTIDE ANTIBODY TITERS IN RHEUMATOID ARTHRITIS PATIENTS

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Background: High titers of cyclic citrullinated peptide antibodies (anti-CCP) are predictive of poor prognosis in the treatment of rheumatoid arthritis (RA). The 2010 ACR/EULAR classification criteria for early RA assign a high point value to cases having highly positive anti-CCP titers. Previous reports have claimed that osteoarthritic damage is more severe and advanced in RA patients who test positive for anti-CCP than in their negative counterparts.

Objectives: To retrospectively investigate whether anti-CCP titers were associated with the extent of osteoarthritic damage in RA patients treated at our institution.

Methods: Data were analyzed for 422 RA patients who received biologic agents due to resistance to methotrexate or other conventional antirheumatic drugs. Associations were explored between joint replacement history-i.e. total knee replacement (TKR), total hip replacement (THR), or lack thereof—and anti-CCP positivity rates and titers.

Results: The sample consisted of 90 men and 332 women. On average, patients were put on biologics at 58.6 years of age (range: 22–85), and had a disease duration of 9.3 years. The first biologic agent chosen was infliximab (IFX) in 154 cases, etanercept (ETN) in 76, adalimumab (ADA) in 61, tocilizumab (TCZ) in 70, abatacept (ABT) in 41, golimumab (GLM) in 18, and certolizumab pegol (CZP) in 2. In total, 331/422 patients (78.4%) tested positive for anti-CCP. TKR was performed in 46 cases (M:F ratio: 7:39, mean age: 64.7 y, mean disease duration: 15.1 y), of which 46 were positive for anti-CCP (100%). THR was performed in 18 cases (M:F ratio: 2:16, mean age: 62.3 y, mean disease duration: 18.5 y), of which 17 were positive for anti-CCP (94.4%). The mean anti-CCP titer among all positive patients (n=331) was 152.9 IU/ml. This value was significantly higher in patients who underwent either joint replacement procedure than those who did not (215.4 v. 142.8 IU/ml, p<0.0005).

Conclusion: With one exception, all RA patients who underwent joint replacement were positive for anti-CCP, and their titers were higher than non-surgical cases. Practitioners should be aware of this trend, and pay attention to the progression of damage in the knee and hip joints when treating RA patients with high anti-CCP titers.

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AB0225

THE NATURAL COURSE OF EARLY RA WITH LATE ONSET IN EVERYDAY CLINICAL PRACTICE ACCORDING TO THE RUSSIAN RA PATIENT REGISTER OREL

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Background: The opinion about the severity and prognosis of rheumatoid arthritis (RA) with late onset balanced between more favorable and more severe over various periods of rheumatology development. We studied this group of patients according to the Russian RA Patient Register OREL.

Objectives: To study clinical, laboratory and radiological characteristics in patients with early RA with late onset of the disease (50 years and older) who are DMARD (disease modifying antirheumatic drugs), biological DMARD and glucocorticoid (GC) (systemic administration) – naive.

Methods: All patients were included in the OREL register in the period from 01.01.2014 to 12.31.2018. There were 151 patients in the study (M:41, W:110; average age 60 ± 7.0 years). There were 73 patients (48%) with the duration of RA up to 3 months, 45 (30%) - 4-6 months, 33 (22%) - 7-12 months. The ratio of men and women was only 1: 2.8 (50 -64 years = 1:3.8; 64 years and older = 1: 1.8).

Results: 99/151 (66%) patients had high disease activity (according to DAS-28), 52/151 (34%) – medium activity.

22/151 (15%) patients had II functional class (FC), 103 (68%) – III FC, 26 (17%) – IV FC.

Table 1 illustrates that with an increase in the duration of the disease, a gradual increase in the frequency of detection of radiological erosion in the hands and distal parts of the feet is noted: 1.5 - 3 months - 33/73 (45%) patients; 4-6 months - 22/45 (49%) patients and in the period 7-12 months - 23/33 (70%) patients.

Table 1. X-ray Stage and RA duration

X-ray Stage		Duration of disease (months)					
		<3	4	5	6	7-12	Total
Non Erosive RA	I	11(1*)	6(1*)	3(1*)	1	5	26(3*)
	II	29(1*)	5	5	3	5	47(1*)
Erosive RA	III	31	8	7	4	20	70
	IV	2	1	1	1	3	8
		-					
Total		73(2*)	20(1*)	16(1*)	9	33	151(4*)

* - Erosion according to MRI of the hands

Table 2. illustrates higher incidence of joint erosions in the presence of RF and / or anti-CPA antibodies (ACPA) compared to patients who are seronegative for RF and ACPA. Таблица 2. X-ray-Stage and RF and ACPA Detection Frequency

X-ray-Stage	The frequency of RF and ACPA detection			
	RF (+) ACPA (+)	RF (+) ACPA (-)	RF (-) ACPA (+)	RF (-) ACPA (-)
Non-erosive RA:	30%	20%	22%	58%
Stages I and II				
Erosive RA:	70%	80%	78%	42%
II, III and IV stages				

The frequency of RF and ACPA detection in non-erosive patients, in all patients with radiological erosion and in patients with advanced stages only (III and IV) was 67% (RF) -78% (ACPA), 75% -90% and 100% -100%, respectively.

Conclusion: Everyday clinical practice (OREL register) shows that in patients aged 50 years and older with early clinical stage of RA who are naive about the treatment of DMARD, biological DMARD and GC, the detection of RF, ACPA and erosive changes in the joints are often observed in the onset of the disease. RF and ACPA are markers of early joint destruction.

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AB0226

USING 3 TESLA MRI WITH A HIGH-RESOLUTION 16-CHANNEL HAND COIL TO DIFFERENTIATE BETWEEN RHEUMATOID AND PSORIATIC ARTHRITIS: A PILOT STUDY

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Background: The differentiation between rheumatoid arthritis (RA) and psoriatic arthritis (PsA) is sometimes a challenge for rheumatologists in daily clinical practice. Imaging techniques such as MRI could be a helpful tool for this purpose.

Objectives: To examine the value of 3 Tesla (T) magnetic resonance imaging (MRI) with a high-resolution 16-channel hand coil for the differentiation between RA and PsA.

Methods: A total of 17 patients with active PsA and 27 patients with active RA were evaluated by 3T MRI. Images were analyzed by three readers according