AB0155

COMPARATIVE ANALYSES OF SEROLOGICAL BIOMARKERS AND DISEASE CHARACTERISTICS BETWEEN ELDERLY ONSET RHEUMATOID ARTHRITIS (EORA) AND YOUNGER ONSET RHEUMATOID ARTHRITIS (YORA)

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Background: Several studies have reported differences in disease characteristics between elderly onset RA (EORA: age of onset > 60 years) and younger-onset RA (YORA). However, the findings across the studies have been rather inconsistent owing partially to the genetic variation across the populations studied. While a few studies have looked into the clinical aspects of EORA, there is a profound lack of comparative data on serological findings between EORA and YORA. Seropositive RA is known to be associated with more aggressive disease and the titres of the autoantibodies may predict the disease activity and the severity of radiographic progression.

Objectives: The main aim of this study was to compare the levels of the autoantibodies namely anti-CCP (cyclic citrullinated peptide), IgA, IgM, IgG rheumatoid factors(RF) and disease characteristics between the EORA and YORA groups.

Methods: We consecutively recruited a total of 151 female RA patients who were tested for IgA RF, IgG RF, IgM RF and anti CCP antibodies. Participants were aged above 18 years and met the 2010 ACR/EULAR RA criteria. Data on the disease characteristics (age at onset, disease activity at onset, disease duration and medications) were obtained by reviewing the medical records of the subjects. Subjects were divided into 2 groups i.e EORA and YORA based on age at onset of RA. All subjects were assessed for the severity of radiographic joint damage and functional disability based on Modified Sharp Score (MSS) and Health-assessment questionnaire-disability index (HAQ- DI), respectively. The EULAR response criteria was used to determine the subjects' response to disease-modifying anti-rheumatic drugs.

Results: The EORA group had 69 patients whereas the YORA group had 82 patients. The mean anti-CCP and IgA RF levels were significantly higher in the YORA group with p values of 0.002 and 0.035, respectively. The YORA group had significantly more severe disease at onset (p value for DAS 28 at onset was 0.009) with worse radiographic joint damage (p value for MSS was 0.006). In parallel with these findings, the YORA group had significantly higher ESR and CRP at onset with higher frequency of subjects requiring advanced therapies. The differences in frequency of RF positivity, disease duration, number of DMARDs, prednisolone dose and HAQ-Di scores between the groups did not reach statistical significance.

Conclusion: EORA is characterized by lower levels of anti-CCP and IgA autoantibodies with less aggressive disease as compared to YORA.

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Table 1. Comparison of disease characteristics between EORA and YORA

Parameter	EORA (n=69)	YORA(n=82)	p value
Age (years)*	67.19± 2.49	31.93± 5.10	<0.050
Disease duration (years)*	8.06±5.04	8.70± 3.63	0.365
DAS28 at onset*	3.29± 1.37	3.96± 1.68	0.009
RF positive at onset	47 (68.11)	62 (75.61)	0.306
Anti CCP titre*	84.52±117.97	151.14±138.02	0.002
IgA RF titre*	24.15±39.54	43.14±64.82	0.035
IgM RF titre*	68.58±97.65	72.74±93.28	0.789
IgG RF titre*	64.36±66.01	70.88±69.58	0.558
ESR at onset(mm/hr)*	54.20± 20.50	67.04± 23.60	0.001
CRP at onset(mm/L)*	1.33± 1.37	3.79± 8.11	0.019
No. of DMARDs			
1	45 (65.21)	41 (50.00)	
2	16 (23.19)	32 (39.02)	0.106
3	8 (11.59)	9 (10.98)	
On biologics & tsDMARD	12 (17.39)	35 (42.68)	0.008
Prednisolone dose (mg)*	2.83 ± 3.32	2.77 ± 3.02	0.920
Treatment Response			
Good	50 (72.46)	54 (65.86)	0.487
Moderate	15 (21.74)	19 (23.17)	
None	4 (5.80)	9 (10.98)	
MSS*	10.04±12.79	17.49±19.04	0.006
HAQ-DI*	1.47±0.87	1.58±0.71	0.397

Data presented as either counts (percentages) or mean ± SD*

Disclosure of Interests: None declared

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AB0156

INCIDENCE OF CERVICAL SPINE INVOLVEMENT IN RHEUMATOID ARTHRITIS, RESULTS FROM A SINGLE CENTRE OBSERVATIONAL STUDY

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Background: Rheumatoid arthritis (RA) manifests as a chronic, symmetrical articular disease; any synovial joint may be involved and the cervical spine is another possible affected site [1,2]. Although the cervical spine involvement is a very severe complication of RA, the exact incidence of cervical spine abnormalities in RA is not fully elucidated yet.

Objectives: In this work, we aimed at evaluating the incidence of a cervical spine involvement and associated clinical characteristics in patients with RA in a single centre observational study.

Methods: In this study, we performed a retrospective analysis of prospectively followed-up patients with RA attending our Rheumatologic Clinic, University of L'Aquila, L'Aquila, Italy, between January 2010 and December 2020. Patients who met the diagnostic criteria of 1987 ACR and/or ACR/EULAR 2010 criteria were assessed. Each patient was investigated for cervical spine involvement occurrence, particularly the atlas-axis cervical involvement. Instrumental imaging evaluation of the cervical spine was performed in all patients with clinical suspicion of involvement, by both MRI and CT examinations. MRI examinations were performed on a 1.5 Tesla scanner, acquiring T1, T2, and STIR sequences on sagittal, coronal and axial planes. CT examinations were performed on a multidetector 320-row CT scanner (Aquilion One, Toshiba) acquired with a thin collimation; soft tissue or bone algorithms were applied for image data reconstruction and analysis.

Incident cases of cervical spine involvement were reported as incidence proportion and incidence rate per 1000 person-years at risk.

Results: In this evaluation, 347 consecutive patients, (mostly female 87.6%, mean age of 66.1 ± 11.3 years) attending our Rheumatologic Clinic, were studied. The incidence proportion of cervical spine involvement was 2.0% [0.6 – 3.4%], occurring in 7 out of 347 patients, and identified by both MRI and CT scan. Considering over 1623 person-years, an incidence rate of 4.0 × 1000 [3.0 – 5.0] person-years was also estimated. All our patients with cervical spine involvement were characterised by female gender, rheumatoid factor, ACPA, fulfilment of ACR 1987 classificative criteria, and poorly controlled disease activity. Smoking habit and extra-articular manifestations were also frequently reported. Glucocorticoids, methotrexate, and infliximab were mainly administered in these patients. This therapeutic strategy resulted in a complete resolution of the inflammatory synovitis in all but one patient. The latter developed a cervical spinal instability resulting in neurological progression and required a subsequent surgical management.

Conclusion: The cervical spine involvement is an uncommon but serious manifestation of RA, since possibly causing severe neurologic damage. A poorly controlled inflammatory process would be an important risk factor for developing a cervical spine involvement in RA, thus, a proper management is required, from an early accurate recognition to a timely therapeutic strategy. MRI could provide a useful clinical tool to early evaluate the cervical spine involvement in RA. Finally, considering the low incidence, further studies are needed to fully estimate the exact incidence of this manifestation, mostly in poorly symptomatic patients.

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AB0157

PREVALENCE OF SARCOPENIA AND CLINICAL IMPLICATIONS IN NEWLY DIAGNOSED RHEUMATOID ARTHRITIS PATIENTS

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Background: The aim of this study is to determine the frequency of sarcopenia at the time of diagnosis in RA patients, evaluate the effects of sarcopenia on RA disease activity, prognosis and examine the factors that may be associated with sarcopenia.

Objectives: To determine the frequency of sarcopenia at the time of diagnosis in rheumatoid arthritis (RA) patients, assessing disease activity and factors that may be associated with sarcopenia and observe effects of treatment on sarcopenia.