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FRI0064 INCREASE OF RHEUMATOID ARTHRITIS AS A CONTRIBUTORY CAUSE OF DEATH IN THE ELDERLY. A NATIONWIDE STUDY IN ITALY, 2003–2015

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Background: Metanalyses failed to show a decrease of the mortality risk in cohorts of patients with rheumatoid arthritis (RA) between 1950 and 1995. Mortality rates obtained with the analysis of multiple causes of death (MCD) can provide a more complete estimate of the burden of mortality related to RA compared to analysis considering only the underlying cause of death (UCD). Such analyses are available from a limited number of countries, and trends for RA mortality based on MCD were divergent.

Objectives: The objective of the study was to evaluate trends of rheumatoid arthritis (RA) mortality reported as the underlying cause of death (UCD) and as multiple cause of death (MCD) in Italy between 2003 and 2015.

Methods: Analyses were carried out on the Italian National Cause of Death Register, managed by the Italian National Institute of Statistics (ISTAT). Diseases mentioned in the death certificate are coded according to the International Classification of Diseases, 10th Edition (ICD-10, 2009 version). Deaths from January 1, 2003 to December 31, 2015 with mention of RA were included. Time trends of age-standardized rates were analyzed for RA both as UCD and MCD; and the annual percent change (APC) was estimated.

Results: Overall 26,564 deaths with mention of RA were retrieved out of 7,595,214 deaths (0.35% of all certificates). The yearly number of RA-related deaths increased through the study period, meanwhile the probability of selection as the UCD decreased: MCD/UCD ratio was 3.7 in 2003-2006 and 4.8 in 2012-2015 in males; 3.0 and 4.1 in females (Tab.). Mortality rates based on the UCD decreased (males APC -3.1%, CI -3.9, -2.3; females APC -3.3%, CI -4.1, -2.4); while MCD rates for RA-related mortality were stable. Specifically, rates were stable or declined among younger subjects, whereas an increase was registered for the elderly: RA-related deaths in subjects aged ≥ 80 years raised from 48% in 2003-2006 to 59% in 2012-2015 (Fig.).

Conclusion: RA is increasingly mentioned among diseases contributing to death in Italy. Rheumatoid arthritis declined as underlying cause of death in the last decades. We observed a shift of RA-related mortality towards the elderly, possibly because of the progress in therapeutic strategies allowing increased survival of RA patients.

Table. Rheumatoid arthritis-related number of deaths and mortality rates, based on underlying and multiple causes of death.

	2003-2006	2007-2011	2012-2015
Males			
Average annual number of RA-related deaths	441	502	535
Share of all deaths	0.16%	0.18%	0.18%
UCD, average age-standardized rate (x100,000)	0.54	0.47	0.41
MCD, average age-standardized rate (x100,000)	2.01	2.04	1.95
RA selected as the UCD	26%	23%	22%
Females			
Average annual number of RA-related deaths	1392	1557	1699
Share of all deaths	0.49%	0.52%	0.54%
UCD, average age-standardized rate (x100,000)	1.34	1.20	0.98
MCD, average age-standardized rate (x100,000)	4.00	4.04	3.98
RA selected as the UCD	33%	29%	25%

RA, rheumatoid arthritis; UCD, underlying cause of death; MCD, multiple causes of death.

Figure. Multiple causes of death: rheumatoid arthritis-related mortality rates (x100,000) by calendar period and age class.

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FRI0065 PATIENT-REPORTED PALINDROMIC SYMPTOMS IN EARLY RHEUMATOID ARTHRITIS: RESULTS FROM THE CANADIAN EARLY ARTHRITIS COHORT

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Background: The frequency and characteristics of patients with Palindromic Rheumatism (PR) (transient acute attacks of articular inflammation) prior to early rheumatoid arthritis (ERA) are unknown.

Objectives: To compare ERA patients who did versus did not report a history of transient episodes of joint inflammation preceding RA diagnosis.

Methods: Study participants were patients with ERA or suspected RA (symptoms <1 year; 83% met 2010 ACR/EULAR criteria) enrolled in the Canadian Early Arthritis CoHort (CATCH) between April 2017 to March 2018 who completed a questionnaire on prior inflammatory joint symptoms that "come and go". Chi-square and t-tests were used to compare characteristics in patients with versus without a reported history of prior palindromic symptoms. Simple, and multivariable logistic regression with backward selection ($p < 0.2$) were used to determine crude and adjusted predictors of palindromic symptoms.

Results: 154 ERA patients were included; 66% were female and mean (sd) age was 54 (15) years. 54% had previous joint pain and swelling prior to their current episode; 42% endorsed prior episodic joint pain and swelling, approximately half of whom (20% of total, N=31) reported transient joint symptoms for over six months. Patients reporting previous palindromic symptoms were more often female, seropositive, had more comorbidities, and lower swollen joints and baseline CDAI ($p < 0.05$). In multivariable regression, female sex, higher income, seropositivity, back or spine issues, and lower CDAI were associated with history of palindromic symptoms (Table 1).

Conclusion: Half of ERA patients self-reported transient episodes of inflammatory arthritis prior to being diagnosed with RA. They are more likely female, seropositive, with higher income and lower disease activity.

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Table 1: Multivariable Logistic Regression Examining Associations between RA Baseline Characteristics and History of Transient Joint Episodes Prior to RA diagnosis*

Variable	N=133	
	OR	95% CI
Age (years)	0.997	0.966, 1.029
Female	3.303	1.165, 9.366
Household annual income (>\$50,000 CAD)	2.539	1.063, 6.063
Rheumatic disease comorbidity index	1.347	0.994, 1.825
Osteoarthritis	3.102	0.996, 9.658
Back/spine symptoms	2.974	1.145, 7.723
Seropositivity (RF or ACPA positive)	3.641	1.343, 9.873
CDAI	0.949	0.912, 0.988

*Non-significant variables: current smoker, MD global assessment. 21 patients excluded from multivariable analysis due to missing data.

MD medical doctor, RF rheumatoid factor, ACPA anti-citrullinated protein antibodies, CDAI Clinical Disease Activity Index

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FRI0066 ASSESSMENT OF LUNG INVOLVEMENT IN RHEUMATOID ARTHRITIS IN A NORTH AFRICAN COUNTRY

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Background: Rheumatoid arthritis (RA) is a common inflammatory disease developing within joints but extra-articular organs such as the lung could be involved.

Objectives: To determine the frequency and the characteristics of lung involvement in RA Tunisian patients.

Methods: A retrospective study including patients with RA fulfilling ACR/EULAR 2010 criteria was conducted in a department of rheumatology in the north of Tunisia between 2014 and 2017. Pulmonary involvement was evaluated based on chest clinical symptoms, combined results from chest-X-ray, computed tomography of the chest and pulmonary functional tests. Patients with pulmonary involvement not directly related to RA were excluded from this study (emphysema, neoplasm, infection...)

Results: Sixty five patients with RA were collected. The mean age was 56 years $\pm$ 12.8 years. The mean age of disease onset was 46.4 $\pm$ 13.8 years ranging from 17 to 75 years. The mean disease duration was a 9.6 $\pm$ 10.1 year. A total of 13 patients (20%) were noted to have clinical chest symptoms. It was dyspnea (9 cases (13.8%)), chest pain (2 cases (3%)), dry cough (5 cases (7.7%)) and expectoration (3 cases (4.4%)). Eight patients (12.3%) had crackles in pulmonary auscultation. Mean time

to pulmonary involvement onset was 2.5 years [1-4 years]. Chest-X-ray was available in all patients and showed abnormalities in 24 cases (37%). Chest computed tomography was practiced in 24 patients (36.9%). It revealed pulmonary abnormalities in 18 patients (75% of those scanned). Chest computed tomography revealed abnormalities in 3 patients (4.6%) who hadn't respiratory complaints. Pulmonary functional tests was performed in 26 patients (40%) and revealed abnormalities in 3 cases (obstructive signs in 2 cases and association of obstructive and restrictive signs in 1 case).

The overall frequency of lung involvement based on different lung investigations was 27.6% (18 patients). Parenchyma was the most frequent site of pulmonary involvement: interstitial lung disease was found in 7 cases (38.8%); it was a usual interstitial pneumonia in 5 patients (27.7%) and nonspecific interstitial pneumonia in 2 cases (11.1%). Bronchiectasis was found in 5 cases (27.7%), rheumatoid nodule in 4 cases (22.2%) and pleural disease in 2 cases (11.1%).

Conclusion: Lung involvement is frequent in RA Tunisian patients and the interstitial lung disease represented the most encountered pulmonary manifestation.

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FRI0067 ANXIETY AND DEPRESSION IN A PREGNANCY AND RHEUMATIC DISEASES CLINIC

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Background: Preconceptional psychologic evaluation allows the identification of risks factors for perinatal disorders. Anxiety (13.4%) and depression (41.5%) has been reported in rheumatic diseases¹. Hospital Anxiety and Depression Scale (HADS) is used to evaluate anxiety and depression in patients with chronic diseases².

Objectives: To describe the frequency of anxiety and depression disorders among preconceptional patients in a Pregnancy and Rheumatic Diseases Clinic.

Methods: An observational, cross-sectional, and descriptive study was conducted in the Rheumatology Consultation of Hospital Universitario "Dr. José Eleuterio González" in Monterrey, Mexico. We included 100 women aged between 18 and 39 years in the preconceptional stage of the Pregnancy and Rheumatic Diseases Clinic. HADS, which is divided in two subscales, one for anxiety and one for depression, indicating a disorder when a score ≥ 11 was applied. To evaluate Rheumatoid Arthritis (RA) a Disease Activity Score (DAS28) was used, for Systemic Lupus Erythematosus (SLE) a Systemic Lupus Erythematosus Disease Activity index (SLEDAI) was performed, and others (Sjögren's syndrome, dermatomyositis and fibromyalgia) were evaluated with the Global Quality of Life (GQL). To analyze differences among groups, Gamma coefficient was used. It was considered a statistically significant $p < 0.05$.

Results: One hundred women in childbearing age were included, with a mean age of 34.48 (SD 18.33) years. RA was diagnosed in 48%, SLE in 37%, and others in 15%. We found a mean HADS total score of 11.73 (7.29), in the anxiety subscale 6.94 (4.027), and depression subscale 4.79 (4.026). A significant correlation between SLE and a high HADS score was observed (Table 1).

Conclusion: In order to have a safe pregnancy, an early intervention to assess the psychiatric status is required in patients with rheumatic diseases.

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