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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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