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MORTALITY AND CAUSE OF DEATH IN KOREAN PATIENTS WITH RHEUMATOID ARTHRITIS: BASED ON A LARGE COHORT.

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Background: Rheumatoid arthritis (RA) is a common chronic inflammatory disease characterized by arthritis of multiple joints. Although the use of corticosteroid and extra-articular complications may lead increased mortality of patients with RA and it have been confirmed by hundreds of studies, the prognosis of RA has improved over the past decades with the introduction of biologics disease-modifying anti-rheumatic drugs and treat-to-target strategy. Along with the increase of overall survival of RA, the needs for re-assessment of actual life expectancy in patients with RA have also been increased.

Objectives: To investigate the cause and the risk of death of Korean patients with RA in a large RA cohort.

Methods: We analyzed patients in Hanyang BAE RA cohort who fulfilled the American College of Rheumatology criteria. A total of 2,355 patients were enrolled from October 2001 to December 2015. Mortality data were derived by linking with data from the Korean National Statistical Office and date and cause death were identified. Standardized Mortality Ratio (SMR) was estimated by dividing the observed deaths by the expected number of deaths of age- and sex- matched general population. Confidence intervals were calculated based on the Poisson distribution.

Table 1. Comparison of demographic and clinical characteristics of analyzed patients

	Total (n=2,355)	Died patients (n=225)	Survivors (n=2,130)	P value
Age at onset	41.8 ± 12.8	49.7 ± 12.7	41.0 ± 12.5	<0.001
Age at enrollment	50.8 ± 12.3	63.3 ± 9.4	49.5 ± 11.8	<0.001
Male	265 (11.3)	42 (18.7)	223 (10.5)	<0.001
Disease duration	18.1 ± 10.4	20.7 ± 10.9	17.8 ± 10.3	<0.001
Observation period	9.0 ± 4.4	7.0 ± 3.6	9.2 ± 4.5	<0.001
Smoking				<0.001
Never smoker	1,953 (83.9)	161 (74.9)	1,792 (84.8)	
Former smoker	212 (9.1)	36 (16.7)	176 (8.3)	
Current smoker	164 (7.0)	18 (8.4)	146 (6.9)	
Comorbidity				
Hypertension	330 (14.0)	63 (28.0)	267 (12.5)	<0.001
Diabetes mellitus	106 (4.5)	24 (10.7)	82 (3.9)	<0.001

*Values are number (%) or mean ± standard deviation. ** Missing data were excluded from analysis.

Results: Over the observation period, 225 deaths were reported. The age at enrollment was 50.8 ± 12.3 years and disease duration was 18.1 ± 10.4 years. The most common cause of death was malignancy (40 cases) followed by respiratory disease (38 cases), cardiovascular disease (32 cases) and musculoskeletal disease (21 cases). Total SMR was increased [1.7, 95% CI 1.5-2.0] but age- and sex- adjusted SMR was not increased [SMR 1.0, (95% CI 0.9-1.1)]. When we classify patients by age conduct subgroup analysis, sex-adjusted SMR was also similar with that of general population by all group: the adjusted SMR in patients aged 15-39, aged 40-59 and aged over 60 were 0.7 (observed death 1, expected death 1.5, 95% CI 0-2.0), 0.9 (observed death 29, expected death 32 95% CI 0.6-1.3), and 0.9 (observed death 195, expected death 221.0, 95% CI 0.8-1.0), respectively. Compared with survivors, patients who died were more likely to be male (18.7% vs. 10.5%, p<0.001) and they had an older age of onset of RA (49.7 years vs. 41.0 years, p<0.001). Died patients were more likely to be current smoker or ever smoker (25.1% vs. 15.2%, p<0.001) and accompanied by more comorbidities including hypertension (28.0% vs. 12.5%, p<0.001) and diabetes mellitus (10.7% vs. 3.9%, p<0.001).

Conclusion: The overall age- and sex- matched SMR of patients with RA was similar with that of general population. However, compared with survivors, patients who died were more likely to be male, diagnosed with RA at older age, more likely to be smoker, and they have more hypertension and diabetes mellitus. Therefore, attention should be paid not only to RA itself but also managing comorbidities to improve the survival of patients with RA.

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ANA TESTING IN THE (VERY) ELDERLY: EXPECTATION VERSUS REALITY

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Background: Antinuclear antibodies (ANA) are frequently used as a screening tool for systemic autoimmune rheumatic diseases (SARD), although they are also present in 10-15% of the adult healthy population. SARD have their peak incidence in the young/ middle-aged adult. As age progresses, the incidence of SARD decreases while the prevalence of ANA tends to increase, with some series reporting up to 30% prevalence in older ages¹.

Objectives: To determine the clinical significance and utility of ANA testing in a population over 85 years of age.

Methods: We conducted a retrospective study of patients over the age of 85 who underwent ANA testing due to a SARD suspicion at our hospital autoimmunity laboratory, from 2011 to 2018. Justification for ANA request was collected from patient's clinical records. Patients with pre-established diagnosis of SARD and patients with no justification given for ANA request were excluded from the analysis. ANA titer (positive ≥ 1:160) and cellular staining patterns were assessed by indirect immunofluorescence (Hep-2 cells).

Results: Ages ranged from 85 to 98 years, with 58.8% being females. The prevalence of ANA in this population was 61.5%, mostly in lower titers (1:160 in 45.0%, 1:320 in 31.9%, 1:640 in 20.3% and 1:1280 in 2.7%). Dense fine speckled pattern was by far the most common cellular staining pattern (79.1%). A suspicion of SARD was the reported reason for ANA testing in 34.5% (n=296) of the 854 patients submitted to this test. The main clinical clues justifying SARD suspicion were: arthralgia/arthritis (11.9%), thrombocytopenia (10.0%), pancytopenia (10.0%), spotless fever (8.2%), interstitial lung disease (4.8%), pleural (6.1%) and pericardial (4.1%) effusion. Over a median follow-up of 1.0 year, 10 patients (3.4%) were diagnosed with a SARD, only one being an ANA-related disease: 5 cases of polymyalgia rheumatica, 2 cases of rheumatoid arthritis, 1 case of giant cell arteritis, 1 case of Sjogren syndrome and 1 case of sarcoidosis. In 60% of patients with a confirmed SARD, the main reason for suspicion was the presence of arthralgia/ arthritis. Positive ANA testing showed a 90.0% sensitivity and a 39.6% specificity for SARD. This translates into a positive predictive value of 5.0%.

Conclusion: ANA are highly prevalent in elderly patients under SARD suspicion, while the incidence of SARD is very low, which explains the low positive predictive value of ANA testing. Interestingly, only one among the ten cases of SARD confirmed was indeed an ANA-related disease (Sjogren syndrome).

References:

- [1] Selmi C, Ceribelli A, Generali E, et al. Serum antinuclear and extractable nuclear antigen antibody prevalence and associated morbidity and mortality in the general population over 15 years. *Autoimmun Rev*. 2016;15(2):162-166. doi:10.1016/j.autrev.2015.10.007

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SAT0594

LONG-TERM MORBIDITY FOLLOWING IGA VASCULITIS IN CHILDHOOD

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Background: IgA vasculitis (IgAV) in children is considered a mostly self-limiting disease. However, patients may require aggressive initial treatment, are prone to disease relapses and conceivably have a sustained abnormality in mucosal and/or circulating IgA responsiveness, that can predispose to the development of other conditions.

Objectives: To determine whether childhood IgAV predisposes to comorbidity later in life.

Methods: Observational cohort study examining rates of hospitalization, ED visits, procedures and accrual of comorbidity (by Charlson comorbidity index; CCI) comparing 494 IgAV patients <20 years at diagnosis with 1385 non-exposed matched controls over a 20-year period. Maximum likelihood estimates were used to obtain Odds (OR) and Rate ratios per 1000 person-years (RR).

Results: Hospitalization was increased proportionally (73.5 vs 51.5%) and by rate (21.7 vs 18.9; rate ratio 1.15) (both p<0.01) for IgAV patients, who underwent more diagnostic and medical procedures whereas controls had higher rates of surgical interventions. IgAV patients had an higher overall ED attendance (25 vs 16%) and visit rate (10.8 vs 8.43, RR 1.29) (each p<0.01) and accrued more often peptic ulcer and renal disease and developed severe comorbidity (CCI ≥3) at a higher rate (OR 2.9, 95% CI 0.79-11.6) than controls.

Conclusion: A diagnosis of IgAV in childhood associates with increased risk and rate of subsequent hospital admission, ED attendance and severe comorbidity.