with PR had an increased risk of RA (HR, 118.76; 95% CI, 89.81–157.04), SS (HR, 59.57; 95% CI, 43.87–80.88), SLE (HR, 51.56; 95% CI, 32.96–80.66) PM (HR, 57.38; 95% CI, 6.90–476.83), and SSc (HR, 13.42; 95% CI, 3.79–47.55) but not of DM (HR, 3.44; 95% CI, 0.34–34.59).

Conclusions: Patients with PR had an increased risk of developing RA, SS, SLE, PM, and SSc.

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AB1306

EPIDEMIOLOGY OF ACUTE ANTERIOR UVEITIS, PSORIASIS, INFLAMMATORY BOWEL DISEASE, PALINDROMIC RHEUMATISM AND SJOGREN'S SYNDROME IN TREATED ANKYLOSING SPONDYLITIS PATIENTS IN TAIWAN

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Background: The population-based epidemiology of extra-articular manifestations of ankylosing spondylitis (AS), including acute anterior uveitis (AAU), psoriasis (PsO), inflammatory bowel disease (IBD) in Taiwan had not been investigated. Whether or not the incidences of palindromic rheumatism (PR) and Sjogren's syndrome (SS) are higher than non-AS individuals is also unknown.

Objectives: This study aimed to investigate the incidences of AAU, PsO, IBD, PR, and SS in a population-based AS cohort compared with a matched non-AS cohort in Taiwan.

Methods: Using 2003–2012 claims data from the Taiwanese National Health Insurance Research Database, we firstly identified 30,900 AS patients newly diagnosed from 2006 to 2012 who received at least 3 courses of AS-related therapy (i.e., non-steroidal anti-inflammatory drugs, methotrexate, salazopyrine or corticosteroid) and defined the first date of AS diagnosis as the index date of the AS cohort. Then we randomly selected 3 09 000 non-AS individuals matching (1:10) AS cases for age, sex and the year of the index date as the comparison cohort and defined the first ambulatory visit date of the index year as the index date of the non-AS cohort. We calculated the proportions of having AAU, PsO, IBD, PR, and SS before the index date in both cohorts. After excluding subjects with the corresponding prior diseases, we calculated the incidence rates (IRs) of AAU, PsO, IBD, PR and SS for the AS and non-AS cohorts, and estimated the incidence rate ratios (IRRs) with 95% confidence intervals (CIs) of AAU, PsO, IBD, PR, and SS for AS patients as compared to non-AS individuals.

Results: The proportion of men was 62.9%, and the mean $\pm$ SD age was 42 $\pm$ 17 years. Before the index date, AS patients had higher proportions of having AAU (8.6% vs. 0.7%), PsO (1.8% vs. 0.5%), IBD (0.061% vs. 0.007%), PR (1.7% vs. 0.1%) and SS (0.33% vs. 0.042%) compared with non-AS individuals. AS patients also had higher incidence rates of AAU (IR, 992 per 10⁵ years vs. 128 per 10⁵ years; IRR, 7.74, 95% CI, 7.16–8.38), PsO (IR, 167 per 10⁵ years vs. 73 per 10⁵ years; IRR, 2.30; 95% CI, 1.97–2.70), Crohn's disease (IR, 2.7 per 10⁵ years vs. 0.2 per 10⁵ years; IRR, 16.44; 95% CI, 2.75–98.4), ulcerative colitis (IR, 6.1 per 10⁵ years vs. 0.1 per 10⁵ years; IRR, 76.03; 95% CI, 9.35–617.98), PR (IR, 591 per 10⁵ years vs. 29 per 10⁵ years; IRR, 20.33 95%; CI, 17.87–23.12), and SS (IR, 84 per 10⁵ years vs. 6 per 10⁵ years; IRR, 13.61; 95% CI, 10.05–18.43).

Conclusions: Consistent with prior studies, our data showed that the incidence of AAU, PsO, and IBD were higher in AS patients than non-AS individuals. We also found that AS patients had a higher incidence of PR and SS compared with non-AS individuals.

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AB1307

DISEASE BURDEN OF AUTOIMMUNE INFLAMMATORY RHEUMATIC DISEASES IN SOUTH KOREA

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Background: Little is known about the epidemiology and disease burden of autoimmune inflammatory rheumatic diseases (AIRDs) in South Korea.

Objectives: To investigate the prevalence and direct medical cost of AIRDs in South Korea.

Methods: The prevalence of AIRDs including seropositive rheumatoid arthritis (RA), ankylosing spondylitis (AS), systemic lupus erythematosus (SLE), vasculitides, and other connective tissue diseases was calculated, and their trends between 2012 and 2016 were observed using nationwide claims database and the Rare Intractable Disease registration program. Direct medical costs of each AIRD in 2016 were estimated on the basis of claims charged for specific ICD-10 diagnostic codes.

Results: Among the all AIRDs, seropositive RA was most prevalent in Korea with prevalence of 188.5/100,000 persons in 2016, followed by AS (58.7/100,000), SLE (38.0/100,000), Behçet disease (29.2/100,000), Sjögren syndrome (23.5/100,000), and systemic sclerosis (7.1/100,000). Relatively low prevalence was observed in inflammatory myositis (4.5/100,000), polymyalgia rheumatica (4.1/100,000), psoriatic arthritis (PsA, 2.5/100,000), and each vasculitis (0.6–3.1/100,000). Prevalence of most AIRDs had been increased from 2012 to 2016, while their sex and age distribution were not changed significantly. Total direct medical costs in 2016 of overall AIRDs were \$263,136,087, which were mostly composed of direct medical expenditures for seropositive RA, AS, and SLE. For the direct medical cost per person, microscopic polyangiitis (\$6,223.3) was the highest, followed by PsA (\$3,603.7), Wegener granulomatosis (\$3,002.6), dermatomyositis (\$2,643.1), and AS (\$2,603.9).

Conclusions: Most prevalent AIRD in Korea was seropositive RA, followed by AS, Sjogren's syndrome, SLE, Behçet's disease, and systemic sclerosis. Direct medical cost per person was high in microscopic polyangiitis, PsA, Wegener granulomatosis, dermatomyositis, and AS.

Disclosure of Interest: None declared

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AB1308

FACTORS ASSOCIATED WITH THE DEVELOPMENT OF ESRD IN A RECENT LARGE SINGLE CENTRE COHORT OF PATIENTS WITH LUPUS NEPHRITIS

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Background: Lupus nephritis (LN) remains a major cause of morbidity in systemic lupus erythematosus. Worldwide, at 5 years about 19% (Class IV) and 4% (class V) of patients with LN develop end-stage renal disease (ESRD), depending upon the disease severity, ancestral and socio-economic factors as well as response to initial treatment. ESRD is an unusual direct cause of death in this disease but is associated with premature mortality.

Objectives: The aim of this study was to retrospectively review our large cohort of LN patients, predominantly treated with MMF and rituximab based steroid sparing regimens, who required renal biopsy for new presentation between 2010 and 2017 to analyse the factors associated with the development of ESRD.

Methods: We identified 176 patients with LN from a renal biopsy database, at our tertiary Lupus Centre presenting between 01/2010 and 09/2017. The 21 patients (11%) who progressed to ESRD were included, and using propensity score matching, were matched for age, gender and ethnicity with 63 patients who did not develop ESRD. Patients who required dialysis at presentation were excluded.

Results: Baseline characteristics were similar with regard to gender, age and ethnicity between both groups. Mean follow-up was 4 $\pm$ 17 years overall (2.1 $\pm$ 1.4 years in the ESRD group and 3.8 $\pm$ 1.5 years in the non-ESRD group, p=0.0002). The ESRD group had significantly higher serum creatinine at baseline (184.2 $\pm$ 143.6 vs 89.0 $\pm$ 48.0, p=0.031) and at 12 m (256.2 vs 79.5, p=0.001) and significantly lower baseline eGFR (44.6 vs 68.1, p=0.003) and eGFR at 12 m (27 vs 73.1, p=0.001). The absence of remission at 1 year was also associated with a higher risk of ESRD (71.7% vs 9.5%, p=0.001), as well as the presence of positive

MPO-ANCA ($p=0.040$), the ANCA titre ($p=0.031$) and persistent low levels of complement (50% vs 21.5%, $p=0.035$). Using multivariable regression analysis, independent factors predictive of ESRD were baseline serum creatinine and no response to treatment at 12 months. There was no significant difference in outcome between groups regarding the type of induction treatment.

Conclusions: The rates of ESRD in our LN cohort are comparable with the published literature despite. In our patient population with high use of rituximab and low steroids, the features that predict poor long term outcome are baseline serum creatinine and the failure to attain a remission at 1 year. These data highlight the importance of a) early diagnosis of lupus nephritis and b) defining the features which determine non response at 1 year and being able to identify earlier what would be the right treatment regimen for each individual patient.

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AB1309

RADIOGRAPHIC PROGRESSION OF WEIGHT-BEARING LARGE JOINT DAMAGE IN PATIENTS WITH RHEUMATOID ARTHRITIS DURING TNF-BLOCKING THERAPIES – MAXIMUM 12-YEAR FOLLOW UP –

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Background: We have demonstrated that TNF-blocking therapies are effective in inhibiting the radiographic progression in weight-bearing large joints with pre-existing Larsen grade 0-II during short term follow-up^{1,2}. However, it is not clarified that the observed effect is persistent during long-term TNF-blocking therapies.

Objectives: The purpose of this study is to assess radiographic progression of weight-bearing large joint damage in patients with rheumatoid arthritis during long-term TNF-blocking therapies.

Methods: Sixty two consecutive patients (7 male, 55 women, mean age of 59.5 years old) were evaluated at baseline and after TNF-blocking therapy (infliximab, etanercept, adalimumab and golimumab). Joints that had undergone surgical intervention or ankylosis before the initiation of TNF-blocking therapy were excluded from the radiographic analysis. We assessed the radiographic progression of 327 weight-bearing large joints (109 hip joints, 99 knee joints, 119 ankle joints) at baseline and every year after TNF-blocking therapy. The structural damage in the weight-bearing large joints was evaluated using the Larsen grade (LG) at baseline. Radiographic progression of joint damage was defined as ARASHI change score³ except bone quality score ≥ 1 . Survival rate was analysed using Kaplan-Meier method and the end point was defined as progression of joint damage.

Results: Average follow-up period was 7.0 years (rang, 1–12 years). Analysis of hip and knee joints with baseline LG 0/I indicated that 12 year survival rates were 93.4% and 84.1%, respectively. Radiographic progression was limited to cases with poor clinical response. All of the hip and knee joints with pre-existing damage of LG III/IV showed rapid progression at 1 year. Hip joint with baseline LG II showed gradual progression of damage. Two and 5 year survival rates of hip joint with LG II were 60.0% and 0%, respectively. Knee joint with baseline LG II also showed slow progression. Two, 5- and 9 year survival rates of knee joint with LG II were 81.3%, 48.2% and 0%, respectively. On the other hand, the radiographic progression of ankle joint damage was not significantly related to pre-existing damage. Twelve-year survival rates of ankle joint with baseline LG 0/I, II and III/IV were 81.6%, 75.0% and 82.4%, respectively.

Conclusions: In hip and knee joint, it was sometimes difficult to inhibit the progression when the baseline Larsen grade had been at II-IV. Therefore, it is essential to pay attention to the occurrence of early radiographic damage to avoid progression of hip and knee joint destruction.

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AB1310

ANTI-MÜLLERIAN HORMONE AND VITAMIN D SERUM LEVELS IN WOMEN WITH RHEUMATOID ARTHRITIS

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Background: Anti-Müllerian hormone (AMH) is a marker for ovarian reserve, whose levels when found decreased suggest compromise of the fertility. The AMH gene promoter contains a vitamin D response element that may cause vitamin D status to influence serum AMH levels, vitamin D has an influence in the activity of Rheumatoid Arthritis (AR) since it has been found that patients with autoimmune diseases show lower serum levels of this vitamin in comparison of normal controls. The current study examined the vitamin D status and AMH levels in women with RA.

Objectives: Evaluate serum levels of vitamin D and AMH in women with RA and in control group.

Methods: Observational, cross-sectional, study conducted between May and July 2017 at the University Hospital "Dr. José E. González" in Mexico. We included 38 women between 18 and 39 years of age, they met diagnostic criteria for RA established by the ACR in 2010, excluding pregnant patients, with primary amenorrhea or known risk factors for diminished ovarian reserve. A control group of 38 healthy age-matched women was integrated. Serum AMH level was measured using ELISA method in commercial kit (AMH Gen II, Beckman Coulter, Brea, CA, EU) as well the 25-hydroxyvitamin D [25(OH)D] status using chemiluminescence immunoassay. To analyse differences between the groups, we used Mann-Whitney U test; Spearman correlation coefficients were calculated between AMH level and Vitamin D level. Values are shown as the mean $\pm$ SD. Two-sided P values less than 0.05 were considered significant. The statistical package used was SPSS Statistics, V17(Chicago: SPSS Inc.)

Results: It was found a mean age of 34.42 ($SD=5.43$) and 31.47 years ($SD=5.72$) in the control group and in women with RA, respectively. Regarding the mean serum levels of Vitamin D it was reported 20.04($SD=7.81$) in control group and 23.55 ($SD=8.2$) in women with RA. In control group, it was reported a mean of AMH of 2.83($SD=0.47$) and in women with RA a mean of 2.63($SD=0.50$). Serum levels of Vitamin D of patients with RA were statistically significant compared with the control group ($p=0.015$) and AMH were statistically significant in women with RA compared with the control group ($p=0.052$)(Table1). There was no significant correlation between serum levels of vitamin D and AMH ($p=0.795$).

Abstract AB1310 – TABLE 1

	Control	RA	P
Age (years)	34.42 ± 5.43	31.47 ± 5.72	
Serum 25 (OH) D (ng/ml)	20.04 ± 7.81	23.55 ± 8.2	0.015a
Serum AMH (ng/ml)	2.83 ± 0.47	2.63 ± 0.50	0.052a

Control: healthy patient; RA: rheumatoid arthritis; AMH: anti-Müllerian hormone. The values are expressed in mean $\pm$ SD. a Differences between the 2 groups as calculated by the Mann-Whitney U test. Values of 25 (OH) D<10 deficient, 10–30 insufficient, 30–100 normal.

Conclusions: The current study shows that AMH and Vitamin D levels are lower in RA patients compared with controls. However, results do not indicate significant correlation between serum levels of vitamin D and AMH. So, it is suggested more studies.

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AB1311

ULTRASOUND EVALUATION OF ENTHESIS IN PSORIATIC ARTHRITIS: A SYSTEMATIC LITERATURE REVIEW

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Background: Enthesis involvement is considered as a key pathological lesion in psoriatic arthritis (PsA) patients. Recently, ultrasound (US) became an important