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

tool to evaluate the enthesis involvement in PsA. Power Doppler (PD) is able to identify vascular abnormalities which are known to be associated with inflammation.

Objectives: To perform a systematic literature review on how enthesitis are evaluated by US in PsA.

Methods: The objective was reformulated according to the PICO approach. Several synonyms for the main components (i.e. ultrasound and enthesitis) were used. No search limits were applied. The literature search was performed in Medline and Embase from databases inception to 1st October 2017. References identified were imported into a bibliographic manager. Firstly, duplicates were removed. Then, to identify eligible studies the remaining articles were assessed by title and abstract. Only articles in English and Latin languages were retained.

From the selected studies, data about the examined structures, pathological findings and definition used to identify pathology were retired using a predefined data collection form.

Results: The literature search resulted in 411 articles, of which 101 were captured in Medline and 310 in Embase. Figure 1 shows the study flow-chart for article selection. After removing duplicates and scanning titles and abstracts, 41 articles remained for the detailed review. After full-text review, 12 articles were excluded. The main reason for article exclusion after full-text review was the lack of explanation of US evaluation.

29 articles were included in qualitative analysis. The mean (range; SD) number of patients evaluated was 66.3 (7–141; 41.9).

The US was used for diagnostic in 26 (89.7%) articles and for monitoring in 7 (24.1%) articles. 4 (13.8%) evaluated also the US nail involvement. All articles used B mode evaluation and 26 (89.7%) used also Doppler mode, all of them using PD.

Thickening was evaluated in 27 (93.1%) articles, hypoechogenicity in 21 (72.4%), the presence of enthesophytes in 21 (72.4%) articles, the presence of calcifications in 11 (37.9%) articles, the presence of erosions in 21 (72.4%) articles, irregularities in 8 (27.6%) articles and bursitis in 15 (51.7%) articles, peri-entheseal soft-tissue oedema in 2 articles.

Triceps was evaluated in 8 (29.6%) articles, elbow extensors in 8 (29.6%) articles, quadriceps in 14 (51.9%) articles, proximal patellar in 12 (51.9%), distal patellar in 15 (55.6%), Achilles in 22 (81.5%), plantar fascia in 18 (66.7%) and finger extensor in 2 (7.4%), elbow flexors 3, medial collateral ligament in femur condyle 3, supraspinatus tendon in 1 articles, gluteus tendons in 1 article, first and seventh costo-sternal joints, anterior superior iliac spine, and iliac crest, the posterior superior iliac spine, and the fifth lumbar spinous process, rotator cuff in one article.

OMERACT definitions were used in 6 (20.6%) articles. Qualitative evaluation was used in 12 (41.3%) articles, semi-quantitative evaluation in 4 (13.7%) articles. As global score, GUESS score was used in 5 (17.2%) articles and MASEI score was used in 4 (13.7%) articles.

Abstract AB1311 – Figure 1

Conclusions: Although the majority of the articles evaluated the same enthesitis and the same US findings, we found a lack of consensus regarding the global score.

Disclosure of Interest: None declared

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AB1312 EFFECTS OF VITAMIN D ON DISEASE ACTIVITY, FUNCTIONAL DISABILITY AND SERUM INTERLEUKIN-6 IN RHEUMATOID ARTHRITIS

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Background: Vitamin D may have a potential role in rheumatoid arthritis (RA) pathogenesis by inhibiting the expression of pro-inflammatory cytokines including interleukin-6 (IL-6)¹⁻².

Objectives: The aim of this study is to determine the clinical factors of vitamin D deficiency in a multi-ethnic Malaysian RA patients and its association with disease activity, functional disability and serum IL-6 level.

Methods: One-hundred RA patients and 50 healthy controls, age- and sex-matched were recruited. DAS28 and HAQ score were assessed. Baseline serum vitamin D and IL-6 were measured in all subjects. RA patients who were vitamin D deficient were given loading dose of vitamin D3 and repeated assessments were done.

Results: Vitamin D deficiency (<50 nmol/L) was found in 63% of RA patients and 76% of healthy controls. Chinese RA patients and healthy controls had significantly more sufficient vitamin D levels compared to Malays and Indians (p=0.002) and (p=0.006), respectively. Only BMI was significantly associated with vitamin D deficiency in RA patients (p=0.012) after adjustment for potential confounding variables. 21 patients received and were compliant to 8 weeks of loading dose 50,000 IU/week vitamin D. Serum vitamin D levels improved from 24.10±7.78 to 91.57±23.70 nmol/L (p<0.001) during this period, whereas no improvement was seen in serum IL-6 levels (16.33±24.58 to 16.38±22.56 pg/ml). No significant association was seen between vitamin D level and disease activity or serum IL-6 level in both pre- and post-treatment groups. A negative association was observed between vitamin D levels and functional disability, including a 33% improvement post-treatment (mean ±SD 0.30±0.46 to 0.20±0.18). The table below shows the independent factors association with serum vitamin D level in RA patients (n=100).

		Mean ± SD	P value
Vitamin D	Age (years)	45.9 ± 3.48	0.202
	Race		
	Malay (35%)	30.73 ± 18.19	0.002
	Chinese (34%)	68.64 ± 23.76	
	Indian (31%)	38.11 ± 22.40	
	BMI (kg/m ²)	26 ± 5	0.002
	Post-menopausal (%)	yes 45 % no 55 %	0.784
	ESR (mm/hr)	37.4 ± 19.6	0.206
	CRP (mg/L)	1.37 ± 1.53	0.779
	Prednisolone (%)	yes 51.5% no 47.5%	0.083
	Low dose vit D (%)	yes 61.4% no 37.6%	0.791
	Serum IL-6 (pg/ml)	14.1 ± 18.56	0.330
DAS28	Inactive (remission/low) (n)	31 45.97 ± 28.83	0.802
	Active (mod/high)	69 45.43 ± 26.42	
HAQ	Mild to mod disability (n)	94 46.82 ± 27.5	0.033
	Mod to severe disability	6 31.62 ± 12.83	

Abstract AB1312 – Figure 1

Conclusions: Vitamin D deficiency is prevalent in Malaysian RA patients. This study suggests that vitamin D does not have a role in disease activity or serum IL-6 but it may have a role in functional disability in RA patients.

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