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).

Vitamin D				Mean ± SD	P value
	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 %	0.784
			no	55 %	
	ESR (mm/hr)			37.4 ±19.6	0.206
	CRP (mg/L)			1.37 ±1.53	0.779
	Prednisolone (%)		yes	51.5%	0.083
			no	47.5%	
	Low dose vit D (%)		yes	61.4%	0.791
			no	37.6%	
	Serum IL-6 (pg/ml)			14.1 ±18.56	0.330
DAS28 (n)		31	46.97 ± 28.83	0.802	
		69	45.43 ± 26.42		
HAQ (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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AB1313

SYSTEMATIC SCREENING OF COMORBIDITIES IN CHRONIC INFLAMMATORY RHEUMATIC DISEASES IN DAILY PRACTICE: A RETROSPECTIVE MONOCENTRIC FRENCH STUDY ACCORDING TO RECENT EULAR GUIDELINES

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Background: In chronic inflammatory rheumatic diseases, comorbidities such as cardiovascular diseases and infections are more frequently observed than in general population and are suboptimally prevented, screened and managed.¹⁻⁴ A nurse-led programme demonstrated the short-term benefit on management of comorbidities in rheumatoid arthritis patients.⁵ EULAR recently published points to consider for reporting, screening, and preventing specific comorbidities in chronic inflammatory rheumatic diseases in daily practice.

Objectives: Our objective was to screen and report comorbidities in chronic inflammatory rheumatic diseases patients in daily practice according to recent EULAR guidelines.

Methods: We included patients with rheumatoid arthritis, spondyloarthritis, and psoriatic arthritis from November 2016 to November 2017 in a retrospective monocentric study in the rheumatology department of the Grenoble Alpes Teaching Hospital. Data regarding comorbidities were collected in a standardised multidisciplinary consultation with a rheumatologist, a specialised nurse and a hospital pharmacist, according to EULAR and French Society of Rheumatology guidelines. Data concerning cardiovascular diseases, infectious comorbidities, cancer screening, and osteoporosis were collected. Data about the rheumatic disease including treatment and disease activity were recorded. Adherence was analysed in consultation by the pharmacist. Recommendations were notified to the patients, his general practitioner, and rheumatologist on a standardised letter. Data were analysed as mean/SD if appropriate and percentage.

Results: We included 101 patients, 43 patients had rheumatoid arthritis, 45 had spondyloarthritis, and 13 were diagnosed with psoriatic arthritis. The mean age was 49.6 years old.^{14,9} 50 patients were followed in the hospital, 39 were followed by private practitioners and 12 were followed by both. All patients were treated with bDMARDs. In average, patients received 2,3 (SD 1,6) different biologic treatments. In our total population, 55,5% had influenza vaccination >1 year ago, 42,6% had an appointment to the dermatologist >1 year ago, 25% of the women between 50 and 75 years old had a mammography >2 years ago and 27,3% of women >50 years old with FRAX above threshold were not treated for osteoporosis. Moreover, 60,5% of patients with rheumatoid arthritis had a Heart Score >1% and 45,6% in the total population.

Conclusions: Our monocentric study confirmed that comorbidities are frequent and suboptimally prevented and managed according to the EULAR point to consider. An evaluation of the efficiency of our standardised consultation and intervention is necessary.

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AB1314

LACK OF ASSOCIATION BETWEEN ABO BLOOD GROUPS AND RHEUMATIC DISEASES IN CHINA: A SINGLE-CENTRE EXPERIENCE

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Background: Various genetic and environmental risk factors have been shown to be associated with the incidence of rheumatic diseases. Several studies have shown associations of ABO blood groups with various diseases.

Objectives: Our study aimed to determine whether there is an association between the types of rheumatic diseases and ABO blood groups.

Methods: The study included the patients, followed up at the Immunology-Rheumatology clinic between January 2010 and December 2017 for diagnosis of rheumatic disease, who had an ABO Rh blood data. Age, gender, type of rheumatic disease, ABO Rh blood groups were recorded.

Results: A total of 1551 patients were included in the study, such as 392 AS patients, 297 RA patients, 752 SLE patients and 110 pSS. The patients were assessed for blood types, 40.2% had O type, 26% patients had A type, 26.8% had B type, and 7.0% had AB type. AS, RA, SLE and pSS were more common in the patients with O blood type. The blood type where all the diseases are observed the least commonly was AB. There was no significant difference in the distribution of blood types in rheumatic diseases.

Conclusions: In our study, we thought that there was lack association between types of different rheumatic diseases and ABO blood groups.

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AB1315

MEDICATION USE AMONG PREGNANT WOMEN WITH RHEUMATIC DISEASES IN KOREA BASED ON THE NATIONAL HEALTH INSURANCE SERVICE-NATIONAL SAMPLE COHORT

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Background: Many rheumatic diseases (RD) predominantly affect women in their reproductive ages. Medication use during pregnancy is an important issue in women with RD since it may affect the health of both fetus and the mother.

Objectives: This study aimed to characterise the status of medication dispensed for Korean women with RD in pre-gestational period and during pregnancy.

Methods: Women aged between 20–44 years and diagnosed as RD and had delivery after the diagnosis of RD were identified from National Health Insurance Service-National Sample Cohort (NHIC-NSC) (2009–2013). Rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), and ankylosing spondylitis (AS) were included as RD. We analysed prevalence of RD related medication including disease-modifying antirheumatic drugs (DMARDs), NSAIDs, and corticosteroids (CSs) dispensed between the pre-gestational periods of 3 months before pregnancy until delivery. We also analysed prevalence of other medications and supplements which are commonly dispensed during pregnancy in women with RD and the age and sex matched controls.

Results: There were 71 deliveries among 1059 women with RD. In RD pregnancies, 54.9% had taken at least 1 RD related medications. The prevalence of DMARDs dispensing during pregnancy was 23.9%, CSs 43.7%, and NSAIDs 38.0% in RD population. Although usage of antibiotics and medication for thyroid diseases during pregnancies were not different between the women with RD and the control, use of vitamin and iron supplements were significantly higher in the women with RD (38.0% vs 13.4%, $p < 0.0001$).