0 bursae. Ultrasound abnormalities were found in 62 joints, 73 tendons, 8 bursae, 0 entheses. Overall physical examination and MSUS showed good concordance even if MSUS was more sensitive especially in detecting extra-articular locations.
Conclusions: If the extra-articular locations of synovitis are taken in consideration during the ultrasound examination, there is a good sensitivity of MSUS and a better concordance between clinical and MSUS assessment of JIA. MSUS seems more accurate than physical assessment in detecting the exact position of the inflamed synovial membrane in each anatomical location (joint, synovial sheath, synovial bursa). It could be helpful not only for better addressing the injective procedures, but also for a global quantification of the synovitis (both intra and extra-articular), even if the exact clinical meaning of these ultrasound findings is still unknown, in terms of response to treatments and prognosis.
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SAT0631 INTER-OBSERVER AND INTRA-OBSERVER RELIABILITY OF THE OMERACT ULTRASONOGRAPHIC (US) CRITERIA FOR THE DIAGNOSIS OF CALCIUM PYROPHOSPHATE DEPOSITION DISEASE (CPPD) AT THE METACARPAL-PHALANGEAL (MCP), WRIST, ACROMION-CLAVICULAR (AC) AND HIP JOINTS

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Background: The OMERACT US subtask force "US in CPPD" recently created the definitions for US identification of crystal deposits in joints and tested the reliability at the knee [1].
Objectives: To assess the inter/intra-observer reliability of US on detecting CPPD at triangular fibrocartilage complex (TFCC) of the wrists, fibrocartilage of the AC joint, hip labrum (HL), hyaline cartilage (HC) of the metacarpal (MC) and femoral head.
Methods: The OMERACT criteria for CPPD were used for the exercise [1] using a 2 steps approach. First, the panel of experts gave a dichotomous score (presence/absence of CPPD) of 120 images of the sites included, using a web platform. The images were evaluated twice to assess the inter/intra-observer reliability. Then, the experts met in Siena for a patient based exercise. Bilateral evaluation of TFCC, AC, HL /HC of the hip and HC of the II-III MCP of 8 patients was carried out twice in a day, using a dichotomous score for CPPD. 8 US machines (3 GE, 1 Samsung and 4 Esaote) equipped with high resolution linear probes were used.
Results: Reliability values of static exercise were high for all sites, demonstrating that definitions were clear. The results of the second step are presented in table 1. On live scanning, the TFCC resulted the most reliable site for CPPD assessment, followed by AC. Other sites demonstrated lower kappa values and thus are not reliable for CPPD assessment.
Conclusions: TFCC of the wrist is the most reliable site for CPPD. By adding these results to the previous [2], we confirm that the OMERACT definitions for CPPD can be applied reliably at the knee (meniscus and HC), TFCC and AC, usually the most involved sites in CPPD. The next step of the OMERACT subtask force will be to test these findings in a longitudinal observational study.
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Disclosure of Interest: None declared

Section	Mean prevalence	Mean observed agreement	Mean kappa	Pabak*
Inter-Reader Agreement				
1) ALL	48,2	0,71	0,43	0,42
2) Fibrocartilage	72,7	0,75	0,39	0,51
3) Hyaline cartilage	23,7	0,67	0,09	0,34
4) Hand	22,6	0,69	0,12	0,38
5) Wrist Fibrocartilage	95,1	0,91	0,01	0,82
6) Acromion-Clavicular Joint	61,1	0,75	0,51	0,51
7) Hip	43,7	0,61	0,23	0,23
7a) Hip Labrum	61,8	0,6	0,16	0,19
7b) Hip Cartilage	25,7	0,63	0,04	0,26
Intra-Reader Agreement				
1) ALL	48,3	0,85	0,69	0,71
2) Fibrocartilage	73,1	0,85	0,57	0,71
3) Hyaline cartilage	23,4	0,86	0,53	0,73
4) Hand	23	0,84	0,48	0,69
5) Wrist Fibrocartilage	95,1	0,93	0,66	0,87
6) Acromion-Clavicular Joint	62,5	0,88	0,68	0,76
7) Hip	42,9	0,82	0,58	0,66
7a) Hip Labrum	61,7	0,73	0,32	0,47
7b) Hip Cartilage	23,9	0,91	0,67	0,83

Strength of agreement: < 0.20 Poor. 0.21 - 0.40 Fair. 0.41 - 0.60 Moderate. 0.61 - 0.80 Substantial. 0.81 - 1.00 Excellent
*Pabak: Prevalence-Adjusted Bias-Adjusted Kappa

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SAT0632 IMPACT OF LUMBAR SPINE MORPHOLOGY (SCOLIOSIS) ON EARLY SPONDYLOARTHRITIS PATTERN (THE IMPALA-DESIR STUDY)

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Objectives: To evaluate the impact of scoliosis on both clinical presentation and lumbar imaging of early inflammatory back pain suggestive of spondyloarthritis.
Methods: The DESIR cohort is a prospective longitudinal cohort study of adults aged 18–50 with inflammatory back pain (IBP) $\geq$3 months, $\leq$3 years. Baseline lumbar X-Rays of patients included in DESIR cohort were read by two central blinded fellow readers (and a rheumatologist spine specialist in case of discrepancy) for presence or not of scoliosis (defined as a Cobb angle$>$10° and a Nash Moe grade$\geq$1). Associations between scoliosis and baseline clinical variables, presence of X-Rays (New York) and MRI (ASAS and MORPHO proposal definition) sacroiliitis, presence of spinal signs of spondyloarthritis (mSASSS, BASRI-total, SPARCC scores), presence of spinal degenerative MRI signs on X-rays (yes or no) and MRI (presence of Modic abnormalities, Pfirrmann score, Canal stenosis, Extrusion, High intensity zone Facet osteoarthritis) according to central reading (two readers) and axSpA diagnostic confidence (according to local clinician's confidence on a 0–10 visual analogic scale) were assessed by univariate analysis using the chi-square test (or Fisher's exact test where appropriate) and the Mann-Whitney test. Adjustment for multiple testing was performed according to Bonferroni method.
Results: 675 patients (47.1% men, mean age of 33.6 years, 89.6% had lumbar pain, 65% fulfilling ASAS criteria) were studied. The mean Cobb angle was 3.2° (± 4.8) and 49/675 (7.3%) patients had lumbar scoliosis. The only significant difference was the lumbosacral sagittal balance. Indeed, scoliotic patients had greater lumbar lordosis (57.8° versus 50.9°; $p<0.001$) than non-scoliotic. About MRI findings, spinal degenerative manifestations were very scarce in both groups. The major part of degenerative changes was in the two last lumbar discs and vertebras, without significant difference between scoliotic and non-scoliotic patients.
Conclusions: Scoliotic patients with inflammatory back pain suggestive of spondyloarthritis do not have more lumbar degenerative lesions than non-scoliotic patients, nor difference of clinical presentation, but they have greater lumbar lordosis.
Disclosure of Interest: None declared
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SAT0633 NOT A REPLACEMENT BUT A POSSIBLE SUBSTITUTION: DETECTION OF SACROILIITIS ON MAGNETIC RESONANCE ENTEROGRAPHY IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS

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Background: MR Enterography (MRE), a part of the diagnosis in patients with inflammatory bowel disease (IBD), is increasingly used to exclude Crohn's Disease (CD) in SpA patients with diarrhea. Two important retrospective studies[1,2], on IBD

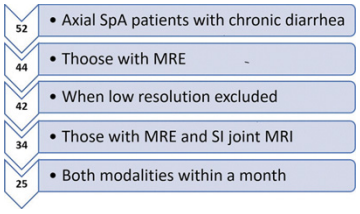
suggest that acute and structural findings of sacroiliitis can be evaluated on MRE. But, it needs to be verified whether it really correlates with sacroiliac MRI.

Objectives: We aimed to determine whether assessment of sacroiliitis on MRE correlates with magnetic resonance imaging (MRI) of sacroiliac (SI) joint.

Methods: MREs used for screening of IBD in Axial SpA patients with chronic diarrhea and routine semi-coronal SI joint MR images were screened for the presence of acute inflammatory lesions and structural changes of the SI joint by the same radiologist in a blinded fashion to time and diagnosis. Firstly, MRE images and then MR images were evaluated on two separate occasions. Only patients with two imaging modalities with a maximum time distance of a month were evaluated.

Results: Forty-four patients with MRE imaging were included. Two MRE studies were excluded because of low resolution. Of those 11 patients (26%) had active inflammatory lesions involving mostly both SI joints and 3 had accompanying chronic structural changes. Ten patients (%24) in the MRE group had chronic structural changes, only. In the remaining 20 (47%) MRE evaluated patients SI joint were not affected. Twenty-five axSpA patients had both MRE and SI joint MRIs performed within a month. In 19 cases, out of 25 with both modalities the finding "no sacroiliitis" overlapped. An additional four patients had acute inflammatory lesions on both investigations. In only two patients either MRE or SI joint MRI had acute inflammatory lesions. In general, chronic structural changes overlapped in both modalities as well; Fourteen out of 25 patients with no changes and eight with chronic changes overlapped in both examinations. Both modalities differ in only three patients; Chronic changes was present in two patients in SI joint MRI and one patient in MRE only.

		MRE (Sacroiliitis)	
		(+)	(–)
SI joint MRI (Sacroiliitis)	(+)	4	1
	(–)	1	19
		MRE (Structural Findings)	
		(+)	(–)
SI joint MRI (Structural Findings)	(+)	8	2
	(–)	1	14



Conclusions: In SpA patients with chronic diarrhea a present MRE may substitute a conventional semi-coronal MRI of the SI joints and may hence decrease diagnostic expenses. Evaluation of MRE for the acute inflammatory and chronic structural changes of the SI joints may also have a place in the diagnostic flow in IBD patients referred by the gastroenterology clinics, as well.

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SAT0634 MUSCULOSKELETAL ULTRASOUND IN PATIENTS WITH CHRONIC INFLAMMATORY RHEUMATISM POST-CHIKUNGUNYA

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Background: Since 2013, Chikungunya fever (CHIK) has become a re-emerging disease, with an important number of cases imported in Europe, mainly from South America. At chronic stage (after third month) it can develop a chronic inflammatory rheumatism (CIR), in some cases indistinguishable from rheumatoid arthritis (RA) or spondyloarthritis (SpA).

Objectives: The aim of this study was to investigate the ultrasound (US) alteration in patients with persistent arthralgia at chronic stage of CHIK.

Methods: Observational study of patients with persistent arthralgias at the chronic stage of CHIK. We designed a protocol of derivation patients from the Tropical Diseases Unit to the Rheumatology Department which included patients had persistent arthritis after 6 weeks who did not respond to steroids, presence of bone erosion or any diagnosis doubt. In the basal rheumatological visit, we made the clinical history, physical examination, blood analysis, X-ray and US examination. A Mylab Twice equipment (Esaote, Geneve, Italy) was used, with a 5–13 MHz frequency for grey scale and 5–12.5 MHz for Power Doppler (PD). Wrist, metacarpophalangeal (MCP), interphalangeal (IP), knee, ankle and metatarsophalangeal joint were assesed and also enthesis if symptomatic. Three patterns of post-CHIK CIR were defined: 1) Post-CHIK RA (if meet RA ACR/EULAR 2010 criteria). 2) post-CHIK SpA (if meet ASAS criteria) and 3) post-CHIK undifferentiated arthritis (arthritis without meeting the previous criteria). Post-CHIK musculoskeletal disorders were defined as chronic polyarthralgia without objective physical signs of inflammation (without arthritis, tendinitis or enthesitis).

Results: 59 patients were included, 76.3% women, mean age of 46.08±13.65 years. 6 patients (10.2%) were derived to the Rheumatology Department, 5 women and 1 man. In one rheumatoid factor and anti-cyclic citrullinated peptide antibodies were detected. HLA B27 and antinuclear antibodies were negative in all patients. The physical and US data of these patients are shown in the table. 5 of these patients were diagnosed with post-CHIK CIR: 1 post-CHIK RA, 1 non-radiographic axial SpA with peripheral affectation (arthritis and enthesitis) and 3 patients with post-CHIK undifferentiated arthritis. The other patient was diagnosed with post-CHIK musculoskeletal disorder. All 59 patients received NSAIDs and steroids. In addition, post-CHIK CIR received methotrexate (2 patients) and sulfasalazine (1 patient), all with improvement. In the full cohort, only 5.9% of patients had arthralgias prior to CHIK infection, vs. 33.3% in the post-CHIK CIR (p=0.081). 3 patients (5.08%) had a family history of arthritis, all in the post-CHIK CIR.

Patient (n°)	Painful joints (n°)	Swollen joints (n°)	Tendinitis	Enthesitis	Sinovitis PD (n° joints)	Tenosynovitis PD (n°)	Enthesitis PD (n°)	Sacroiliitis magnetic resonance
1	33	3	1	0	1	2	0	
2	6	2	0	1	4	0	1	positive
3	5	0	0	0	0	0	0	
4	6	3	0	0	2	0	0	
5	11	1	1	1	2	2	0	
6	6	8	0	0	8	0	0	

Conclusions: Arthralgias are a frequent symptom even at chronic stage of CHIK. Sometimes it is true arthritis and in others cases edema. For this reason US is very useful in doubtful cases. In our cohort, patients that developed post-CHIK CIR were more frequently women, with a higher percentage of family history of arthritis. To the best of our knowledge, this is the first US study in patients with post-CHIK CIR.

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SAT0635 DESCRIPTIVE ANALYSIS OF THE QUANTICAP STUDY: A MULTICENTRIC PROSPECTIVE STUDY FOR THE VALIDATION OF QUANTITATIVE AND QUALITATIVE PARAMETERS OF NAILFOLD CAPILLAROSCOPY

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Background: Nailfold capillaroscopy (NC) is a useful tool to study Raynaud's phenomenon (RP) and other diseases. Different findings and patterns has been described however there is currently no work that validates the qualitative and quantitative NC findings.

Objectives: To describe the morphological and metrological findings of NC in patients with RP and autoimmune diseases.

2-Describe the morphological and metrological findings of CP in patients with RF and several systemic autoimmune diseases.To Describe the morphological and metrological findings of NC in patients with RP and other autoimmune diseases.

Methods: Observational study performed in 10 hospitals by rheumatologists with experience in NC. Patients with diffuse systemic sclerosis (dSSc), limited systemic sclerosis (lSSc), dermatomyositis (DM), polimyositis (PM), systemic lupus erythematosus (SLE) Primary Sjögren's syndrome (PSS), rheumatoid arthritis (RA), primary RP and a control group without RP or rheumatological condition were collected.A video NC 200x magnification were made in all patients. 8 Fingers in each hand were analyzed to find: megacapillary and dilated capillaries, giant capillaries, loss of density (<7/mm), tortuous capillaries, ramifications, haemorrhages, thrombosis and destructuration. Also we analyzed the diameter of the afferent and efferent loop, the capillary apex, the capillary diameter and density/mm. The following variables were also collected: sex, age, years of evolution of the disease and RP, history of digital ulcers or medication for