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.

References:
[1] Magni-Manzoni S. Arthritis and rheumatism. 2009 Nov 15; 61(11):1497–1504.
[2] Roth J. Arthritis Care Res (Hoboken). 2016 Oct 16.

Disclosure of Interest: None declared

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.

References:
[1] Filippou G, Scirè CA, Damjanov N et al. Definition and reliability assessment of elementary US findings in CPPD. Results of an international multi-observer study by the OMERACT sub-task force "US in CPPD". J Rheumatol, in press.

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

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° ($\pm$ 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

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