For laboratory examinations, all patients had raised inflammatory markers like ESR or CRP. Most of those patients had increased cytokines, including IL-1 β , IL-6 as well as TNF- α . Leukocytosis and thrombocytosis were also observed in most patients, while anemia was mostly found in patients diagnosed as NOMID.

We also compared the clinical manifestations of CAPS between Chinese and western patients. The frequency of fever in Chinese is much higher than that in western population, while less Chinese patients suffered from ocular manifestations. Besides, Chinese patients seem to exhibit higher frequencies of severe symptoms, either CNS symptoms, or musculoskeletal symptoms, albeit with insignificant difference.

	Chinese	Western	p value
n	26	136	
Gender Ratio	15:11	69:67	0.518
Fever	25/26 (96%)	108 (79%)	0.002
Rash	24/26 (92%)	132 (97%)	0.397
Triggered by cold	3/26 (12%)	34 (25%)	0.076
Ocular manifestations	10/26 (38%)	97 (71%)	0.001
Hearing loss	9/26 (35%)	56 (41%)	0.535
Neurological symptoms	15/26 (58%)	55 (40%)	0.105
Severe	4/11 (36%)	16 (12%)	0.141
Musculoskeletal manifestations	18/26 (69%)	117 (86%)	0.093
Severe	3/11 (27%)	6 (4%)	0.137
Increased CRP/ESR	25/26 (96%)	NA	

Conclusion: We reported a case series of NLR-related autoinflammatory disease and found some novel mutated alleles and clinical phenotypes, which expanded our knowledge to those diseases. By comparing clinical manifestations of CAPS patients in China and in western countries, it seems that the symptoms in different populations are not identical.

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Diagnostics and imaging procedures

THU0517

THE ROLE OF ULTRASOUND-DEFINED SYNOVITIS GRADE I IN PATIENTS PRESENTING WITH INFLAMMATORY ARTHRALGIA, A RETROSPECTIVE STUDY

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Background: Musculoskeletal ultrasound (MSUS) is frequently used in several rheumatology units to detect subclinical inflammation in patients with joint symptoms suspected for progression to inflammatory arthritis (IA). Synovitis grade I (EULAR-OMERACT combined score) is known to be a casual finding in healthy individuals, but studies headed to unravel its possible role on rheumatic diseases are sparse.

Objectives: To investigate the correlation between synovitis grade I, and the diagnosis of IA made after a year follow-up period since MSUS findings, in patients of an MSUS-specialized unit of a Rheumatology Department.

Methods: We conducted a descriptive, retrospective and unicentric study. 30 patients were selected from the MSUS-specialized unit of our Rheumatology Department from July-18 to January-19. Patients presenting synovitis grade 0 (exclusively), 2 and/or 3 on combined score were excluded. Data collection at baseline included age, sex, immunological profile and previous physical examination to the MSUS findings, as well as the diagnosis made by the rheumatologist in 1-year visit follow-up: dividing the patient sample into two groups: those

who were diagnosed with IA and those not. Non-parametric statistical tests for comparing means were used.

Results: The mean age was 51,6 years and 70% were females. 6 (20%) patients were diagnosed with inflammatory arthritis after a year follow-up: 2 (4,8%) psoriatic arthritis, 1 (3,3%) undifferentiated arthritis, 1 (3,3%) rheumatoid arthritis, 1 (3,3%) Sjögren's syndrome. Non-inflammatory arthropathies were also found 24 (80%), of which, 12 (40%) were non-specific arthralgias and 8 (19%) osteoarthritis.

In the group of patients who did not developed an IA the mean C-reactive protein (CPR) value was 3,12mg/L and erythrocyte sedimentation rate (ESR) was 8,2mm; all of them were rheumatoid factor (RF) positive and ACPA-negative except one patient. 5 (31,3%) patients presented low antinuclear antibodies (ANAs) levels. In those who HLA B-27 and Cw6 were tested (4,25%); both were negative except for one that was HLA B-27 positive. The median number of swollen and painful joint count was 0, and the mean of joints with MSUS involvement was 3,5; the mean involved metacarpophalangeal (MCP) joints was 1,83; proximal interphalangeal (PIP) joints was 1,48 and distal interphalangeal (DIP) joints 0,21.

Among the group of patients that developed an IA the mean of CPR and ESR was 9,27mg/L and 14,17mm respectively; 2 (33%) patients were RF- positive, and 1 ACPA-positive. ANAs were positive in 3 cases (50%). The median of swollen joint count was 2 and for painful joint count was 0, the median of joints with MSUS involvement was 4,5. The mean of MSUS involvement was for MCP, PIP and DIP joints: 1,67, 2 and 0. Comparing the means of CPR values in the two groups with Student's t-test we obtained a statistically significant difference (p=0,023). No other significant differences were found.

Conclusion: Despite the limitations and possible statistical bias, the presence of MSUS-defined synovitis grade I and elevated CRP levels could be related to further diagnoses of inflammatory arthropathy. Besides, the absence of synovitis in DIP joints might have a diagnostic role. Normal physical exploration and normal levels of CRP might suggest low MSUS value. However, further research is needed to clarify the role of MSUS-defined synovitis grade I.

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THU0518

ACCURACY OF DUAL-ENERGY COMPUTED TOMOGRAPHY FOR THE DETECTION OF BONE MARROW EDEMA IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS

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Background: An important applications of the Dual energy computed tomography DECT in the field of musculoskeletal radiology is the detection of bone marrow edema (BME), using a post-processing software to remove calcium in trabecular bone by using a "virtual non-calcium (VNCa)" subtraction process DECT have been successfully employed in the evaluation of the extent of BME in patients with sacroiliitis (1)

Objectives: The aims of this study were i) to evaluate the discriminating capacity of DECT versus MRI in the detection of BME of the sacroiliac joints in patients with axial-SpA and to define the optimal cutoff; ii) to define of inter-observer agreement between radiologists

Methods: All patients underwent a pelvic DECT examination, within 30 days of the MRI imaging, (Somatom Force; Siemens Healthineers, Enlangen, Germany). Each exam was evaluated by two operators: an experienced radiologist and a radiologist in training. The dedicated software also allows the precise calculation of the attenuation values in the region of interest (ROI). On the reformatted color-coded dual-energy virtual non-calcium images bone marrow signal is depicted in green and corresponding to high signal intensity on T2-weighted fat suppression MR images (Fig. 1). With the consent of the two operators, three ROIs were manually positioned for each side of the sacroiliac joints in the subchondral region of