AB1175 DEVELOPMENT AND PRELIMINARY VALIDATION OF AN OMERACT MRI ENTHESITIS SCORING SYSTEM FOR THE ANKLE IN SPONDYLOARTHRITIS

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Background: Enthesitis is regarded the primary lesion in spondyloarthritis (SpA) and MRI allows sensitive visualisation of entheseal inflammation/damage, but no validated, internationally accepted scoring system exists.
Objectives: To develop and perform preliminary validation of a novel OMERACT MRI scoring system for assessing ankle enthesitis in SpA patients, and to improve this through iterative multi-reader scoring exercises and calibration sessions.
Methods: A systematic literature review of MRI studies on enthesitis in SpA identified key inflammatory and structural pathologies. Definitions were agreed by consensus within the OMERACT MRI in arthritis working group. Then, in a first internet-based multireader exercise the Achilles tendon and plantar fascia entheses in 10 ankle MRIs (sagittal T1W, sagittal and Axial T2W fat suppressed) were scored by 15 readers (3 radiologists and 12 rheumatologists), with varying expertise in ankle MRI, for tendon/fascia thickness/signal change, tendon/peritendon signal alteration, retrocalcaneal bursitis, bone spur, erosion and bone marrow oedema, using semi-quantitative scores (0–3: no/mild/moderate/severe pathology). After a subsequent calibration session leading to minor modifications of assessed parameters, 16 ankle MRIs (specifications as above), were scored by 15 readers in exercise 2 with a modified score sheet. Rules were agreed for scoring pathologies. In both exercises, scores for each reader for individual variables were compared and discussed, and mean scores for each variable were determined using descriptive statistics, as were sum scores. Inter-reader agreement was calculated using two-way consistency single measures intra-class correlation coefficient (ICC 3,1) for inflammatory and structural lesions.
Results: Exercise 1: Mean pairwise inter-reader ICC for combined score of inflammatory and structural variables was 0.65 (range 0.10–0.94), with 75% of values being good/very good ($\geq$0.50). Discussion of results led to minor modifications of parameters to be assessed.
Exercise 2: Inter-reader agreement (ICC) for all inflammatory variables combined ranged from 0.26–0.93 among reader pairs (mean 0.64; median 0.66; IQR 0.46–0.79). For structural variables combined ICC ranged from 0.05–0.91 among reader pairs (mean 0.45; median 0.45; IQR 0.2–0.6).
Conclusions: Initial steps in developing an OMERACT MRI heel enthesitis scoring system have demonstrated overall moderate reliability of the proposed variables. Further modification, refinement, calibration and validation (ongoing) are needed before this system is ready for use in SpA clinical trials.
Disclosure of Interest: None declared
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AB1176 ULTRASOUND EVALUATION OF ADHESIVE CAPSULITIS OF THE SHOULDER. DESCRIPTION OF A NEW AND SIMPLE DIAGNOSTIC SIGN

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Background: Adhesive capsulitis of the shoulder (ACS) is a common disease that is characterised by a global and progressive loss of mobility of the glenohumeral joint. It is the result of a capsular inflammation, thickening, and fibrosis with subsequent retraction of the joint capsule. Although it is a frequently self-limiting process, it may persist for years and be resolved with a permanent limitation of glenohumeral mobility. Its diagnosis is based on clinical presentation because the glenohumeral capsule is not visible in simple radiology and the MRI does not offer specific diagnostic findings for ACS.
Objectives: To evaluate the specific ultrasound signs to diagnose ACS in patients with clinical suspicion of ACS.
Methods: Prospective, non-interventional observational study in consecutive patients with clinical suspicion of ACS referred for an ultrasound evaluation. All patients signed an informed consent before the study. Adult patients with a painful shoulder less than 2 years of evolution with clinical suspicion of ACS were included. We excluded patients with surgery or severe articular trauma in the symptomatic shoulder and patients with ultrasound findings that could explain the painful symptoms of the shoulder due to other causes such as rotator cuff tendinopathy, synovitis or glenohumeral osteoarthritis.
The ultrasound examination was systematically performed by an expert sonographer, using an Esaote MayLab 70 with a linear probe. In the ultrasound examination, the measurement of the joint capsule was performed in the axillary recess in the longitudinal plane (maximum passive abduction of the shoulder). The statistical analysis was carried out comparing the capsule means with the Mann-Whitney test (the variable did not follow a normal distribution verified with the Kolmogorov-Smirnov test).
Results: A total of 35 patients were included, with a mean age of 58.27 years,[46–77] 17 men and 18 women. Nine patients had both shoulders affected, so a total of 70 shoulders (44 affected shoulders and 26 control shoulders) were studied. The mean time of evolution of the ACS clinic was 5.6 months.[1–18] The 28.57% of the patients were diabetic and 14% had a history of severe cardiovascular disease before the onset of symptoms. The 44% of bilateral ACS cases were diabetic. The totality of the affected shoulders presented in the clinical exploration limitation of the degrees of mobility of the glenohumeral joint; on the other hand, all control shoulders had a preserved mobility. Regarding the sonographic findings, the mean axillary capsular measurement of the affected shoulders was 4,414 mm (SD 0.177) compared to a mean measurement of 2,203 mm (SD 0.165) in the controls with a statistically significant difference between both groups (p<0.001).
Conclusions: The glenohumeral capsule is easily visible in the axillary approach by ultrasound and allows thickness measurement, being a feasible test for the diagnosis of ACS.
Disclosure of Interest: None declared
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AB1177 A COHORT OF PATIENTS WITH ANTISYNTHETASE SYNDROME EVALUATED IN A MULTIDISCIPLINARY CONSULTATION

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Background: Antisynthetase syndrome (AS) is an uncommon connective tissue disease characterised by the presence of antibodies to anti-aminoacyl t-RNA synthetase (anti-ARS) along with features of interstitial lung disease (ILD), myositis, arthritis and Mecanic's hands.
Objectives: To analyse the most common demographic, clinical, radiological, spirometry and capillaroscopic findings in a cohort of patients with AS. As a secondary objective, the association between capillaroscopic findings and diffusion lung capacity for carbon monoxide (DLCO) and the radiologic pattern in the high-resolution computed tomography of the chest (HRCT) was evaluated.
Methods: A ten-year (2007–2017) retrospective analysis of patients diagnosed with AS followed in a multidisciplinary consultation with a pulmonologist and a rheumatologist. The nailfolds from 2nd to 5th fingers in both hands were examined in all subjects by using videocapillaroscopy (Mediscope-Optilia).
Results: Twenty patients were included, 15 (75%) females and 50% (10/20) non-smokers. Mean age at the clinical debut was 47,5±16 years. Throughout their evolution, 90% of patients (18/20) presented Interstitial Lund Disease (ILD); 70% (14/20), arthritis and 75% (15/20), myositis. Furthermore, 40% (8/20) associated fever, 45%; (9/20), Raynaud's Phenomenon and 55% (11/20), Mechanic's hands. Three patients only had ILD and Raynaud's Phenomenon at presentation. In the immunologic assessment, 73,7% (14/19) were positive for anti – Jo-1 antibodies and 26,3%, for anti PL-12. As non-anti-ARS antibodies, 6 had positivity for rheumatoid factor; 3, for ACPA and 5, for antiRo-52 antibodies. Of those 18 diagnosed of ILD, spirometry tests at baseline were available for 13. It was remarkable that 69,23% (9/13) of patients presented a diminished value of DLCO (low in 23% (3/13), moderate in 46% (6/13) and normal in the rest of subjects. The most common ILD pattern was non-specific interstitial pneumonia (55%, *10/18*) followed by usual interstitial pneumonia (*33,3%,* 6/18) and organising pneumonia (*11,1%,* 2/18). Nailfold capillaroscopy was performed in 16 patients: Scleroderma pattern was observed in 5 (all of them associating Raynaud's phenomenon) and 6 patients showed microangiopathic changes. The most frequent capillaroscopic findings were neoangiogenesis (93,8%) and microhaemorragias[68,8] followed by avascular areas (37,5%) and megacapillaries (31%). An association between capillaroscopic findings and reduction of DLCO or the radiologic pattern was not observed,