patients. 3. After a follow-up time of 3.5 years,43% of patients that died had been diagnosed as a IPAF.

References:
[1] Fischer A,et al. Er Respir J 2015.
[2] Raghu G, et al.Am J Respir Crit Care Med 2011.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.5550

AB1058 SENSITIVE DETECTION OF DYNAMIC CHANGES OF BONE EROSIONS IN INFLAMMATORY ARTHRITIS BY MUSCULOSKELETAL ULTRASOUND: A COMPARATIVE ANALYSIS WITH HIGH-RESOLUTION PERIPHERAL QUANTITATVE COMPUTED TOMOGRAPHY

S. Finzel[1,2], G. Schett[2], S. Kraus[3], R. Voll[1], M. Backhaus[4]. *[1]Department of Rheumatology and Clinical Immunology, University Medical Center Freiburg, Freiburg; [2]Department of Internal Medicine III, Rheumatology and Immunology, University Clinic of Erlangen, Erlangen, Germany; [3]Department of Internal Medicine, Kontonsspital Baden, Baden, Switzerland; [4]Department of Internal Medicine, Rheumatology and Clinical Immunology, Park-Klinik Weissensee, Academic Hospital of Charité, Berlin, Germany*

Background: Bone erosion is a hallmark of inflammatory joint diseases. Its meticulous detection is highly important for correct diagnosis and monitoring of therapy response. Earlier studies showed that musculoskeletal ultrasound (MSUS) has a higher sensitivity than conventional radiography with regards to detection of bone erosions (1) making MSUS more and more popular. The OMERACT ultrasound working group is currently standardizing and validating MSUS as an imaging outcome tool.
Objectives: To investigate the ability of MSUS to sensitively and specifically detect bone erosions in a longitudinal setting using HR-pQCT as a gold standard.
Methods: This is a sequel study to our 2011 cross-sectional comparative analysis on MSUS and HR-pQCT (2). 4/6 healthy individuals, 6/6 psoriatic arthritis patients and of 10/14 rheumatoid arthritis patients were available for follow-up and received an MSUS and an HR-pQCT scan of the clinically dominant hand. Bone erosions at the radial, palmar, and dorsal sites of the second metacarpophalangeal (MCP) joint, as well as the palmar and dorsal sites of the third and forth MCP joints were assessed for prevalence and severity in MSUS and by HR-pQCT. Afterwards, data were compared to the 2011-dataset. MSUS was graded as described earlier (2).
Results: Datasets without follow-up from the baseline cohort were eliminated. Sensitivity of MSUS in comparison to HR-pQCT regarding correct detection of erosions was 95% and specificity was 75%. %. For this analysis, grade 1 lesions were included. At follow-up sensitivity was 86% and specificity 79%. At follow-up, 36 MSUS-lesions were no longer detectable in MSUS; 21/36 were false-positive lesions at baseline. Only one false-positive lesion was detected at both time points. One new lesion was detected by MSUS and confirmed by HR-pQCT. Overall severity of bone erosions regressed in MSUS; these findings were confirmed by HR-pQCT (p=0.04).
Conclusions: This is the first study on change of bone erosions over time comparing MSUS and HR-pQCT. MSUS was confirmed being a sensitive imaging tool able to detect changes of erosions over time. Thus, it may be an adept tool to monitor treatment response in inflammatory joint diseases. Correct identification of bone erosions and differentiation from physiological vessel channels requires knowledge of predilection sites of erosions and physiological cortical breaks; this might aid to further increase the diagnostic value of MSUS.

References:
[1] Wakefield RJ et al. The value of sonography in the detection of bone erosions in patients with rheumatoid arthritis: a comparison with conventional radiography. Arthritis Rheum. 2000.
[2] Finzel S et al. A detailed comparative study of high-resolution ultrasound and micro-computed tomography for detection of arthritic bone erosions. Arthritis Rheum. 2011.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.6969

AB1059 THE PREVALENCE OF DENSE FINE SPECKLED PATTERN IN ROUTINE SCREENING FOR SYSTEMIC AUTOIMMUNE DISEASES USING INDIRECT IMMUNOFLUORESCENCE-ANTINUCLEAR ANTIBODY TEST

S. Kim, Y.L. Jeon, M.H. Kim, W.I. Lee, S.Y. Kang. *Department of Laboratory Medicine, Kyung Hee University College of Medicine, Seoul, Korea, Republic Of*

Background: The nuclear dense fine speckled (DFS) pattern is one of the most commonly observed finding in indirect immunofluorescence-antinuclear antibody (IIF-ANA) assay on HEp-2 cells. Unlike other ANA, DFS pattern is not prevalent in ANA-associated rheumatic diseases (AARD). The antigen was initially named DFS70 (70kD protein) according to the IIF pattern and later known as the lens epithelium-derived growth factor p75 (LEDGF/p75). Autoantibodies showing a DFS pattern have been reported in interstitial cystitis, various chronic inflammatory conditions, autoimmune thyroiditis, atopic dermatitis, cancer, as well as in apparently healthy individuals. Among IIF-ANA tests referred to the laboratory from the Department of Dermatology, the most common IIF-ANA positive pattern is DFS.
Objectives: To compare the clinical significance of DFS pattern in dermatologic diseases (including alopecia) with other departments.
Methods: Between June and December 2016, IIF-ANA testing using HEp-2 cell line slide (Kallestad; Bio-Rad, USA) was performed on 4,130 samples referred as screening for systemic autoimmune diseases in Kyung Hee University Hospital. The identified patterns in IIF-ANA assays were analyzed according clinical department and diagnosis.
Results: The Department of Dermatology was the most requesting IIF-ANA assay (2579/4130, 62.4%) and the Department of Rheumatology and the remaining departments were 18.1% (749/4130) and 19.5% (802/4130), respectively. The prevalence of IIF-ANA positivity was 10.97% (453/4130) and those of the Department of Dermatology, the Department of Rheumatology, and the remaining departments were 8.5% (219/2579), 15.5% (116/749), and 14.7% (118/802), respectively. The DFS pattern was the most common IIF-ANA positive pattern (173/453, 38.2%) and the prevalence of DFS pattern in the Department of Dermatology, the Department of Rheumatology, and the remaining departments were 48.4% (106/219), 26.7% (31/116), and 30.5% (36/118), respectively.
Among 173 patients with ANA pattern of DFS, 168 patients were reviewed based on their medical chart. The most of patients were from Department of Dermatology and Rheumatology. 101 patients with positive DFS were from Department of Dermatology, the majority of 55 patients were diagnosed with alopecia. 31 patients of department of Rheumatology showed positive ANA pattern of DFS and a great part of patients were diagnosed with rheumatism.
Conclusions: According to previous studies, up to 20% of healthy individuals have been reported to have a positive IIF-ANA test and the DFS pattern has been reported in 33% of ANA positive healthy individuals, but not in ANA positive systemic autoimmune diseases. In this study the prevalence of DFS pattern of ANA positivity in patients with dermatologic diseases including alopecia was similar with prevalence reported in healthy individuals. The patients with alopecia appear to show higher prevalence of positive ANA pattern of DFS than other patients with dermatologic disorders. This study was performed with routinely IIF-ANA requested patients to screen for systemic autoimmune diseases. Therefore, further evaluations comparing healthy individuals and patient group with more various disease entities are needed to confirm our findings.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.5665

AB1060 MEASURING AGREEMENT IN THE ULTRASONOGRAPHIC EVALUATION OF DISEASE ACTIVITY IN RHEUMATOID ARTHRITIS PATIENTS. A LATIN-AMERICAN MULTICENTER EXERCISE ASSESSING THE INFLUENCE OF SONOGRAPHER EXPERIENCE AND EXPERTISE

T. Cazenave[1], M.V. Martire[2], C. Waimann[3], M. Rosemffet[1]. *[1]Instituto de rehabilitación psicofísica, Buenos Aires; [2]Hospital Italiano de la Plata, la Plata; [3]Hospital Dr. Hector Cura, Olavarria, Argentina*

Background: Ultrasonography (US) is an important tool in rheumatology practice but it depends on sonographer's experience.
Objectives: To evaluate the reliability of US assessment among observers across Latin American using a web tool.
Methods: Cross-sectional study. Fifty-one Latin American ultrasonographers took part in a web- based US exercise evaluating images from 20 RA patients. The 4 joints US score was calculated for each patient including bilateral radiocarpal, midcarpal and second metacarpophalangeal joints. PD and GS were graded from 0 to 3. US scores comes as the result of the addition of PD and GS score, being 36 the highest disease activity.
Five patients were evaluated twice in order to address intra – rater reliability. The inter and intra-rater reliability was assessed using a two-way random, absolute, individual and average-measures intra-class correlation coefficient (ICC). We stratified sonographers according to experience (defining High experience as: at least 5 years of experience and 80 US assessments/month).
Results: A total of 1020 US image assessments were performed. Mean 4-joints US score was 17±8. The ICC was in the excellent range for intra [(individual ICC = 0.945 (IC95% 0.905–0.965); average ICC =0.972 (IC95% 0.950–0.982)] and

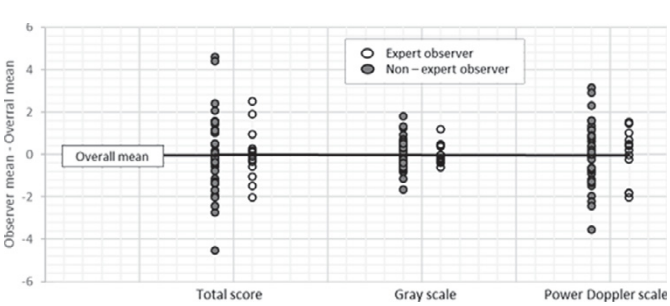

Figure 1, Agreement with the mean between multiple observers in total score, gray and power doppler subscale.