Table 1. Inter-reader reliability

PTI PD	Reader 2	Reader 3	Reader 4	Reader 5	Mean Kappa 0.685
Reader 1	0.755	0.887	0.772	0.641	
Reader 2		0.705	0.666	0.534	
Reader 3			0.722	0.644	
Reader 4				0.525	
PTI GS	Reader 2	Reader 3	Reader 4	Reader 5	Mean Kappa 0.590
Reader 1	0.682	0.778	0.739	0.535	
Reader 2		0.608	0.603	0.456	
Reader 3			0.614	0.445	
Reader 4				0.440	
IAS PD	Reader 2	Reader 3	Reader 4	Reader 5	Mean Kappa 0.680
Reader 1	0.562	0.733	0.685	0.763	
Reader 2		0.597	0.590	0.714	
Reader 3			0.640	0.806	
Reader 4				0.706	
IAS GS	Reader 2	Reader 3	Reader 4	Reader 5	Mean Kappa 0.567
Reader 1	0.593	0.593	0.511	0.727	
Reader 2		0.583	0.478	0.615	
Reader 3			0.423	0.579	
Reader 4				0.564	

[2] Zabotti A et al. Clinical and Experimental Rheumatology 2016; 34: 459–465.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.1438

AB1012 CLINICAL UTILITY OF ANTIHISTONE ANTIBODIES: A DESCRIPTIVE STUDY

D. Boveda-Ruiz[1], B. Vilas-Pio[2], M. Freire-Dapena[2], R. Lorenzo-Castro[2], A. Soto-Peleteiro[2], S. Mirete-Bachiller[3], A. Rivera-Gallego[2]. *[1]Internal Medicine, Hospital Clínico Universitario de Valladolid (SACYL), Valladolid; [2]Internal Medicine; [3]Immunology, Complexo Hospitalario Universitario de Vigo, Vigo, Spain*

Background: Antihistone antibodies (AHA) have been linked to Drug-Induced Lupus Erythematosus (DILE) for decades[1]. However, for some authors this relationship is not so clear and sugest that the presence of these autoantibodies is related to other autoimmune diseases more frequently[2,3,4].
Objectives: The main objetive of this work was to study the association of AHA with different autoimmune entities (including DILE) and secondarily, look into which clinical manifestations and which autoantibodies are more frequently related to AHA.
Methods: We performed a descriptive study. A database was constituted using all patients with AHA+ in any blood analysis between years 2000 and 2016 in the University Hospital Complex of Vigo. The variables of the study were: presence of autoimmune disease, clinical manifestations and related autoantibodies.
Results:

Variable	Men	Women	All	% Total
Age	50	45	46	
Gender	15	58	73	100
SLE	8	27	35	48
DILE	0	0	0	0
Scleroderma	0	4	4	5
Sjögren	1	8	9	12
Rheumatoid Arthritis	0	3	3	4
No diagnosis	5	19	24	33
Malar rash	1	11	12	16
Photosensitivity	2	11	13	18
Oral ulcers	1	10	11	15
Arthritis	6	31	37	51
Lupic nephropathy	4	13	17	23
Raynaud	1	11	12	16
Hematological abnormalities	5	20	25	34
AntiRo+	4	12	16	22
AntiLa+	2	5	7	10
AntiSm+	3	8	11	15
AntiDNAds+	3	25	28	38

None of the 73 patients AHA+ developed DILE while almost the 50% of them suffer any other autoimmune disease. We found a high percentage of AHA+ patients with lupus erythematous complications such as arthritis and hematological abnormalities. AntiDNAds antibody was the more frequent coexpressed autoantibody.
Conclusions:
- AHA detection is not useful as DILE screening.
- AHA+ sugest the presence of other autoimmune disease rather than DILE.
- AHA+ may be related to lupus erythematous systemic complications.

References:
[1] Fritzler MJ, Tan EM. Antibodies to histone in drug-induced and idiopathic lupus erythematosus. J Clin Invest. 1978;62:560–567.
[2] Peng SL, Craft J. Antinuclear antibodies. In: Ruddy S, Harris ED, Sledge CB, eds. Kelley's Textbook of Rheumatology. 6th ed. Philadelphia, Pa: WB Saunders; 2001:166.
[3] Kubo M, Ihn H, Yasawa N, et al. Prevalence and antigen specificity of antihistone antibodies in patients with polymyositis/dermatomyositis. J Invest Dermatol. 1999;112:711–715.
[4] Zirwas MJ, Kress DW, Deng JS. The Utility of Antihistone Antibody Screening in the Diagnosis of Drug-Induced Lupus Erythematosus. Arch Dermatol Apr 2004; VOL 140: 494–495.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.3005

AB1013 DEVELOPMENT AND VALIDATION OF A FLOURESCENCE OPTICAL IMAGING RHEUMATOID ARTHRITIS SCORING SYSTEM FOR SYNOVITIS IN THE WRIST AND HAND

D. Glinatsi[1], M. Østergaard[1,2], L. Terslev[3], S. Ohrndorf[4], M. Ammitsbøll-Danielsen[3]. *[1]Copenhagen Center for Arthritis research, COPECARE, Center for Rheumatology and Spine Diseases, Rigshospitalet, Glostrup; [2]Department of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Copehangen; [3]Copenhagen Center for Arthritis Research (COPECARE), Center for Rheumatology and Spine Diseases, Rigshospitalet, Glostrup, Denmark; [4]Department of Rheumatology and Clinical Immunology, Charité – University Medicine, Berlin, Germany*

Background: Fluorescence optical imaging (FOI) has been suggested as an imaging modality for assessment of inflammation (i.e. synovitis) in the hands, and has in several studies been compared to US and MRI, using different, but not validated scoring systems.
Objectives: To develop and validate a semi-quantitative FOI RA scoring system for synovitis in the wrist and hand.
Methods: 46 RA patients, eligible for induction or intensification of disease modifying anti-rheumatic drug and with ≥1 clinically swollen joint in the hand were included. FOI image-sets of both wrists and hands were obtained at baseline, and after 3 and 6 months' follow-up using a Xiralite system unit (nanoPET Pharma GmbH, Berlin, Germany). The patients received a bolus of i.v. indocyanine green (ICG) pulsion (1mg/kg body weight) 10 seconds after starting the examination, which obtained 1 image/second over 6 minutes. The image-sets were anonymized and randomized and were assessed for synovitis at the wrist, 1st-5th metacarpophalangeal, 1st interphalangeal and 2nd-4th proximal interphalangeal joint levels in both hands by two readers blinded to patient data but not chronology. 23 image-sets were re-anonymized and re-read for intra-reader agreement analysis. The scoring system for synovitis was based on the assumption that inflamed tissue would demonstrate a more rapid enhancement than surrounding tissues. For each joint, the images were assessed sequentially from start of the injection of ICG-pulsion to peak enhancement. At the peak enhancement, the color index was adjusted in order to increase the discrepancy between colors. Synovitis was defined as a sharply marginated enhancement with clear delineation from surrounding tissues and correct anatomical location lasting ≥3 seconds. The thickness of the pathology fulfilling these criteria was compared to the width of the joint in the transverse plane at the 3rd second of enhancement and the following semi quantitative scoring system (0–3) was applied: grade 0: no enhancement, grade 1: <1/3, grade 2: ≥1/3 but ?2/3, grade 3: ≥2/3 of joint thickness (range 0–66). Descriptive statistics and the Wilcoxon signed-rank test were used to assess change in score over time. Intra-/inter-reader for status and change scores were assessed using single measure intra-class correlation coefficients (ICC) and smallest detectable change (SDC, change scores only). Responsiveness was assessed using standardized response mean (SRM).
Results: Median (IQR) total synovitis score at baseline was 9.5 (4.0;16.5) and improved with -5.0 (-10.0;-1.0) and -8.0 (-13.5;-3.0) at 3 and 6 months' follow up, respectively ($p<0.01$). Intra- and inter-reader ICCs were good to very good for total scores (Table 1). The SDCs were generally low and for the inter-reader SDCs, 56% and 60% of the patients had a change >SDC between baseline and 3 and 6 months, respectively. The mean SRM for total change scores at 3 at 6 months' follow-up were moderate to good (0.7 and 0.8).

Table 1

	ICC Baseline	ICC 3 months' follow-up	ICC 6 months' follow-up	ICC Change, baseline to 3 months	ICC Change, baseline to 6 months	SDC Change, baseline to 3 months	SDC Change, baseline to 6 months
	Intra-reader agreement, reader 1						
Total scores	0.90	0.86	0.83	0.87	0.92	6.2	4.9
Wrist	0.82	0.92	0.62	0.88	0.91	1.4	1.4
MCP joints	0.86	0.72	0.93	0.76	0.85	4.8	3.6
PIP joints	0.95	0.96	0.86	0.90	0.90	2.9	3.3
	Intra-reader agreement, reader 2						
Total scores	0.95	0.97	0.90	0.90	0.90	6.2	6.5
Wrist	0.92	0.88	0.81	0.78	0.80	1.6	1.6
MCP joints	0.96	0.96	0.92	0.92	0.89	3.3	3.4
PIP joints	0.94	0.95	0.80	0.88	0.90	3.8	3.9
	Inter-reader agreement						
Total scores	0.88	0.84	0.60	0.81	0.70	4.8	6.2
Wrist	0.76	0.72	0.58	0.67	0.65	1.1	1.3
MCP joints	0.86	0.80	0.76	0.81	0.66	3.1	3.7
PIP joints	0.91	0.82	0.39	0.79	0.71	2.6	3.6

Intra-and inter-reader intra-class correlation coefficients (ICC) were interpreted as follows: good: ICC≥0.60, very good: ICC≥0.80. Abbreviations: SDC: smallest detectable change, MCP: metacarpophalangeal, PIP: proximal interphalangeal.

Conclusions: The novel FOI RA synovitis scoring system showed high reliability and moderate to good responsiveness in the wrist and hand. Future studies should focus on assessing the sensitivity and specificity of the FOI synovitis score with ultrasound and magnetic resonance imaging as gold standard.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.4633

AB1014 SAFETY OF OUTPATIENT PERCUTANEOUS NATIVE RENAL BIOPSY IN PATIENTS WITH SYSTEMIC AUTOIMMUNE DISEASES: RESULTS FROM A MONOCENTRIC COHORT

D. Roccatello, S. Sciascia, D. Rossi, C. Naretto, M. Bazzan, L. Solfietti, M. Radin, S. Baldovino, E. Menegatti. *Department of Rare and Immunologic Diseases, G. Bosco Hospital and University of Turin, TOrino, Italy*

Background: Renal involvement is common in patients with systemic autoimmune conditions, mainly systemic lupus erythematosus (SLE) and vasculitis, including cryoglobulinemia. Despite the advances in percutaneous kidney biopsy (PKB) techniques and overall improved safety of the procedure, clinically significant bleeding complications do occur.
Objectives: to investigate the safety of performing percutaneous native kidney biopsy (PKB) as an outpatient procedure (implying an observation period of 6 hrs) compared to the traditional inpatient policy in patients with systemic autoimmune conditions.
Methods: Group I, in whom PKB was performed in the outpatient department (2012–2016) and followed by 6 hours' observation period and then by regular outpatient visits and group II, in whom PKB was performed and followed by at least 1-day hospital admission. Group II included retrospectively retrieved patients who underwent PKB in our Institution between January 2000 and November 2012 as in patient procedure. All biopsies were performed by a single nephrologist following a structured protocol.
Results: A total of 81 biopsies (group I and group II) were included in this study, 44 (54%) of patients were female and the mean age was 49.9±17.6 years. Twenty-six per cent of biopsies were performed for the diagnostic workup of nephrotic range proteinuria, 21% for rapidly progressive renal insufficiency, and the remaining 53% for non-nephrotic proteinuria and/or hematuria. No patient suffered for a major complication and only 3 (3.7%) patients (one with cryoglobulinemic vasculitis and 2 with ANCA associated vasculits) developed a minor complication, including gross hematuria in one case and sub-capsular perinephric hematoma on sonography not requiring intervention in 2 patients
Conclusions: The lack of major complications and the very limited rate of minor bleeding support that outpatient biopsy could be a valuable, safe, and perhaps cost-effective method of obtaining diagnostic renal tissue in the majority of patients with systemic autoimmune diseases.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.2162

AB1015 AUTOMATED SQUEEZE TEST (GAENSLEN'S COMPRESSION MANEUVER) IN RHEUMATOID ARTHRITIS PATIENTS. EXPLORATORY STUDY

D. Vega-Morales, J.A. Esquivel-Valerio, A.C. Arana-Guajardo, M.A. Garza-Elizondo. *Rheumatology Service, Hospital Universitario Dr. José Eleuterio González, Monterrey, Mexico*

Background: The squeeze test (a.k.a Gaenslen's Compression Maneuver) consists on the compression of the metacarpal-phalangeal (MCP) joints to elicit pain in a patient with active synovitis. The squeeze test has three main purposes: Screening of inflammatory arthritis, as a predictor of rheumatoid arthritis in arthralgia patients, and as a quick and practical evaluation of the presence/absence of synovitis in patients already diagnosed with RA. The force and the way to perform the squeeze test had been evaluated in rheumatologists on a biomechanical device, with conflicting results. We developed a biomechanical device to perform the squeeze test.
Objectives: Our aim is to determine the force whether the automated squeeze test discriminate patients with active RA from inactive ones. And the force that differentiates a healthy patient from a RA patient.
Methods: Observational study in RA (ACR/EULAR 2010) patients and healthy persons. We perform 3-squeeze test on the device in the MCP joints and record the force enough to elicit pain. And then compare them with the joint counts by the clinician
Results: Two hundred MCP joints from 50 hands were tested. From 25 RA patients with a mean age of 54.6 years (SD 11.22), with a mean disease latency of 1.2 years (SD 2.7). The total swollen joint count was 16 (7 right joints + 9 left joints) and 70 total tender joint count (30 right joints and 40 left joints). The median of force that caused pain in the RA patient's right hand was 3.07 kg (IQR 2.4) and the left hand was 2.78 kg (IQR 3.8). The cut-off for the force to detect a tender right hand joint was 1,020 grams with a sensitivity of 100% and specificity of 10%; for a swollen right hand joint was 1,400 with a sensitivity of 100% and specificity of 28.6%. For a tender left hand joint was 1620 grams with a sensitivity 70% and specificity of 6.7%; and for a swollen left joint was 1990 grams with a sensitivity of 100% and specificity of 27.3%.
In the second phase, 560 MCP joints of 140 hands from 70 healthy volunteers were compressed. The median force to elicit pain in the right hand was 4.2 kg (IQR 9.5) vs. 3.07 kg (IQR 8.7) from RA patients (p=0.003). And for left hand 4.6 kg (IQR 9.7) vs. 2.78 kg (IQR 9.2) from RA (p=0.014).
Conclusions: It is necessary to continue the exploration of the maneuver in different clinical settings. Validate the strength in patients with different arthropathies, activity levels and different clinical stages (screening, activity, prediction) and also with imaging methods for evidence of inflammation (US, MRI)
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.3318

AB1016 ANTI-DFS70, A TOOL IN USUAL CLINICAL PRACTICE: A CASE SERIES

D. Ybáñez-García [1], E. Valls-Pascual [1], C. Vergara-Dangond [1], M. Aguilar-Zamora [1], L. Montolio-Chiva [1], Á. Martínez-Ferrer [1], J.M. López-Ortega [2], J.J. Alegre-Sancho [1]. *[1]Rheumatology; [2]Clinical Analysis Laboratory Service, Hospital Universitario Dr. Peset, Valencia, Spain*

Background: The presence of anti-nuclear antibodies (ANA) has been considered a characteristic of systemic autoimmune diseases (SAD). Patients are frequently referred for study because they have ANA and are followed because of the possibility to develop SAD. Approximately, 20% of healthy individuals with ANA detected by indirect immunofluorescence (IFI), especially at low titers, have a dense, fine speckled pattern (DFS) that frequently corresponds to the presence of anti-DFS70 antibodies. The importance of this antibody is due to its low prevalence in subjects with ASD (<1%) compared to its presence in 33.1% of healthy subjects with ANA.
Objectives: To describe the usefulness of Anti-DFS70 in a series of patients presenting ANA.
Methods: We collected prospectively throughout the year 2016 all the patients referred to a tertiary hospital for ANA study and in whom the presence of anti-DFS70 antibodies was confirmed. All patients underwent a thorough medical history, physical examination, and relevant follow-up tests were performed according to the clinical presentation. The IFI was performed in a Menarini Zenit-Up/GSight system, as well as ANA screening in Hep-2000 (Fluorescent IgG ANA-Ro Test System-immunoconcepts) and the detection of anti-DFS70 antibodies by immunoblot (ANA + DFS70 Dot Blot-Alphadia).
Results: We collected in a period of 12 months a total of 7 patients with anti-DFS70 antibodies. Most of them (6/7) were referred because of non-specific symptoms such as arthralgia, fatigue, thrush, edema, ... and the presence of ANA. The findings are detailed in Table 1.

Abstract AB1016 – Table 1

Case	1	2	3	4	5	6	7
Symptoms	Polyarthralgias Arthritis 4th interphalangeal joint	General pain Dry eye and dry mouth	Polyarthralgias Back pain Inflammatory markers +	Arthromyalgias Fatigue Fever Anti-TNF-a	Polyarthralgias Back pain Fatigue, oral aphthosis	Hand pain and deformity of 2nd PIPs	Left foot edema
Gender	♀	♀	♀	♂	♀	♀	♀
Age	45	47	37	48	39	56	55
Hemogram/Renal/liver function	N	N	N	N	N	N	N
RF/ACPA	(–)	(–)	(–)	(–)	(–)	(–)	(–)
ANA (IFI)/ENAs	+1/160/–	+1/160/–	+1/320/–	+1/160/–	+1/160/–	+1/320/–	+1/80/–
C3, C4	NP	N	NP	NP	NP	NP	NP
Schirmer/Ss	NP	N	NP	NP	NP	NP	NP
CRP/ESR	N	N	21/17	N	N	N	N
Comorbidities	Type 2 DM	Graves Basedow	Hand angioedema	PsA	Graves Basedow	Dyslipidemia	No
RX /MRI	CPPD	Degeneration of left TMC and dorsal spine	L4-L5, L5-S1 Retrolistesis			Mild degenerative signs in PIP and TMCs	Synovial fluid in talo-navicular and tarsal joints
Axial/joint	Degenerative axial and joint signs		C5-C6-C7 Protrusions				
Diagnosis	OA CPPD	OA	OA Discopathy	PsA	Fibromyalgia Chronic fatigue	OA	Resolved foot arthritis

NP: not performed, N: normal, OA: osteoarthritis, PsA: psoriatic arthritis, CPPD: chondrocalcinosis.