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	

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AB1012 CLINICAL UTILITY OF ANTIHISTONE ANTIBODIES: A DESCRIPTIVE STUDY

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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.

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

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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.