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Background: Systemic lupus erythematosus (SLE) is a chronic and autoimmune disease characterized by systemic involvement. Patients with SLE have accelerated atherosclerosis, resulting in an up to nine-fold increased risk of cardiovascular disease, compared to the general population (1), being the leading cause of death for these patients. Speckle tracking echocardiography (STE) is an accurate technique to estimate myocardial function and deformation.
Objectives: This study aims to determine the association between echocardiographic findings and the presence of antibodies in SLE patients.
Methods: This was a cross-sectional and observational study. A total of forty-three patients ≥18 years with a diagnosis of SLE according to EULAR/ACR 2019 criteria were included for this study. Those with a history of cardiovascular disease (myocardial infarction, cerebrovascular accident, or peripheral arterial disease) and pregnancy were excluded. Transthoracic echocardiogram was performed and reviewed by 2 board-certified cardiologists, in all study subjects. Blood samples obtained from all patients were analyzed for the following: anti-nuclear antibodies (ANA), anti, SSA/Ro, SSB/La antibodies, anti-cardiolipin antibodies (IgA, IgM, IgG), and complement levels. Distribution was evaluated with the Kolmogorov-Smirnov test. Correlations between numerical variables were done using Spearman's rho, considering two-tailed p-values <0.05 as statistically significant.
Results: The 39 female patients (90.7%) and 4 male patients (9.3%) had a mean age of 35.5 ± 12.0 years and a median disease duration of 72 months (14-132). At the time of inclusion, 90.7% of the patients were being treated with glucocorticoids and antimalarials. Concerning traditional cardiovascular risk factors; 20.9% of the patients had hypertension, 7.0% had dyslipidemia, 2.3% had diabetes mellitus and 18.6% were active smokers. Correlations between echocardiographic findings and antibodies are shown in Table 1. We found a moderate positive correlation between global circumferential strain and IgA anticardiolipin antibody (r=0.507, p=0.002), a low positive correlation in left ventricular ejection fraction with anti-Ro (r=0.397, p=0.012) and anti-La (r=0.397, p=0.012) and a low positive correlation between TAPSE and C3 levels (r=0.396, p=0.013).
Conclusion: There is an association between anticardiolipin antibody titers, anti-Ro, and anti-La with echocardiographic alterations. All SLE patients especially those who had positive antibodies should be screened for the presence of structural cardiac abnormalities. STE can be helpful as a noninvasive diagnostic tool, that could result in earlier treatment and prognosis.
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Table 1. Spearman rho correlations between antibody titers and echocardiographic findings.

Variables	GLS, mean ± SD -19.11 ± 3.33	LVEF, mean ± SD 57.43 ± 7.17	TAPSE, mean ± SD 22.23 ± 3.24
ANA, median (p25-p75) 640 (160-2550)	NS	NS	NS
IgA Anti-Cardiolipin, median (p25-p75) 2 (2-3)	**0.507****	NS	NS
IgM Anti-Cardiolipin, median (p25-p75) 2 (2-4)	NS	NS	NS
IgG Anti-Cardiolipin, median (p25-p75) 4 (3-6)	NS	NS	NS
Anti-Ro, median (p25-p75) 17 (2-80)	NS	**0.326***	NS
Anti-La, median (p25-p75) 3 (2-5.5)	NS	**0.397***	NS
C3, mean ± SD 91.41 ± 37.38	NS	NS	**0.396***

**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level. NS, not significant; GLS, global circumferential strain; LVEF, left ventricular ejection fraction; TAPSE, tricuspid annular plane systolic excursion.

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POS1405

OPTICAL SPECTRAL TRANSMISSION (HANDSCAN) IN PATIENTS WITH PSORIATIC ARTHRITIS: FIRST DATA ON DIAGNOSTIC VALUE AND ASSOCIATIONS WITH CLINICAL AND ULTRASOUND DISEASE ACTIVITY MARKERS

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Background: Valid assessment of disease activity leads to improvement of long-term outcomes in patients with inflammatory arthritis (1). Optical spectral transmission (OST) is a modern diagnostic tool able to assess the blood-specific absorption of light transmitted through a tissue, promising quantification of inflammation in the finger and wrist joints of patients with rheumatoid arthritis (RA) (commercial device: HandScan – Demcon/Hemics, The Netherlands) (2). Even though an increasing number of studies have evaluated diagnostic value of this new technology in RA patients (2,3), no data exist regarding psoriatic arthritis (PsA).
Objectives: To examine for the first time the diagnostic value of OST in detecting inflammation in patients with PsA and to evaluate its relationship with disease activity markers and various epidemiological and anthropometric patient characteristics.
Methods: OST-Measurements were performed in a group of PsA patients and a group of healthy controls. The difference between OST in the two groups was statistically examined and relationships of OST with clinical (tender / swollen joint counts, disease activity on a visual analogue scale) and serological disease activity markers were evaluated. Moreover, joint ultrasound (US) examinations were performed in a subgroup of PsA patients and OST associations with a Power Doppler- and a Grey Scale-US score were examined. Finally, relationships of OST with various anthropometric and epidemiologic parameters (BMI, handsize, gender, age) were assessed.
Results: We recruited 49 PsA patients [65.3% female; mean age 53.3 years (± 11.8 SD)] and 114 control subjects [77.2% female; mean age 46 years (± 12.8 SD)]. OST was statistically significantly higher in the patient group, compared to the control group [14.95 (12.04 - 17.18, IQR) vs. 10.31 (7.84 – 13.79, IQR); p<0.001]. OST correlated moderately-strongly with both examined US scores (Power Doppler-score: r = 0.5; p = 0.026 and Grey Scale-score: r = 0.52; p = 0.028). Moreover, OST showed a moderate, statistically significant association with C-reactive protein (CRP) (r = 0,298; p = 0,037). Finally, males had significantly higher OST values than females and OST associated moderately-weakly with body mass index (BMI) in the control group (rho = 0.24; p< 0.001).
Conclusion: This is the first report of a possible diagnostic value of OST in patients with PsA. OST correlated with ultrasound and serological activity markers and may thus prove to be a useful tool of disease activity assessment, next to well established diagnostic modalities, such as the joint US. Correlations of OST with patient characteristics implicate the need to take also anthropometric and epidemiological patient characteristics into account when interprenting OST results in order to avoid confounding.
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POS1406

DEVELOPMENT OF A DIAGNOSTIC ALGORITHM FOR THE DIFFERENTIAL DIAGNOSIS OF INTERSTITIAL LUNG DISEASE: PRELIMINARY DATA FROM A MULTICENTER RETROSPECTIVE CASE-CONTROL STUDY

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Background: Interstitial lung diseases (ILDs) represent a heterogeneous group of disorders with different treatment and prognosis. ILD may be the presenting or

the dominant manifestation of a connective tissue disease (CTD). Multidisciplinary team (MDT) discussion is currently the diagnostic standard. However, there is no consensus on how MDT diagnosis is validated and on the core elements of discussion.

Objectives: To explore the performance of a diagnostic algorithm for the differential diagnosis of ILD based on clinical, serological and radiological data, supporting clinician decision-making.

Methods: In this retrospective study, analysis was performed on clinical, serological and radiological features at diagnosis and 1-year follow-up in 71 patients, including 41 with CTD-ILD and 30 with idiopathic interstitial pneumonias (IIPs). In order to identify robust hallmarks, we conducted the Receiver Operating Characteristic (ROC) curve analyses in logistic regression, to discriminate significantly different features between CTD-ILD and non-CTD-ILD groups.

Results: Out of 71 patients 46% were women, with a mean age of 66±11 years. History of smoking (8.8% current and 39.8% former smokers), was more associated with IIPs. 54% of patients had dyspnea on exertion and 39% dry cough, both more frequently associated with IIPs (p = 0.016). Among radiological features, NSIP pattern was more frequent in CTD-ILD, while UIP was associated with IIP. Lung fibrosis extent was greater in IIP (p = 0.063), in which CT is generally performed in symptomatic patients at diagnosis and rarely for screening purpose. Baseline features with good performance (OR p-value ≤ 0.05) were eligible as potential candidate discriminators: age, sex, smoking habit, rheumatological signs and symptoms, autoantibodies, ILD patterns were selected, to build a multivariate model with high discrimination accuracy (AUC 0.971). The model has a sensitivity of 100% and specificity of 89.7%. The most relevant correlations between population features and CTD-ILD are presented in Table 1.

Table 1. Correlation analysis of the most significant discriminative features.

Features	Odds ratio	P value	Area under ROC curve
Sex (female)	3.29	0.019*	0.643
Age	0.91	0.001*	0.736
Smoke	0.12	<0.001*	0.738
Respiratory symptoms (dyspnea and/or dry cough)	0.26	0.016*	0.644
Rheumatological symptoms (any)	28.8	<0.001*	0.839
• Raynaud's phenomenon	15.04	0.011	0.654
• Cutaneous manifestations	8.16	0.053	0.593
Autoantibodies (ANA, ENA, RF, ACPA, myositis-specific antibodies or aPL) positivity	33.68	<0.001*	0.792
Lung function test			
• Forced vital capacity (%FVC)	0.97	0.175	0.638
• Diffusing capacity of carbon monoxide (%DLCO)	0.96	0.072	0.665
High-resolution computed tomography (HRCT) imaging			
• Honeycombing	0.34	0.068	0.593
• Emphysema	0.14	0.005*	0.647
• Extent of lung involvement (%)	0.97	0.063	0.668
HRCT pattern			
• NSIP vs UIP	3	0.033*	0.625

Abbreviations: ANA, antinuclear antibody; ENA, extractable nuclear antigen; RF, rheumatoid factor; ACPA, anti-citrullinated peptide antibody; aPL, antiphospholipid antibody; NSIP, non-specific interstitial pneumonia; UIP, usual interstitial pneumonia.

Conclusion: Our study shows that the most important variables in the differential diagnosis between CTD-ILD versus IIPs include, as expected, autoimmune features (rheumatological symptoms and serological data). Questionnaire tool containing these specific hallmarks may be relevant during MDT discussion, limiting the number of misdiagnosed CTD-ILDs and potentially avoiding further unnecessary investigations. However, only prospective cohort studies of early onset ILD are needed to fully validate the relative importance of clinical, serological, functional and radiological data.

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POS1407

COMPARISON OF CAROTID SUBCLINICAL ATHEROSCLEROSIS AND STRUCTURAL DAMAGE IN AXIAL SPONDYLITIS WITH AND WITHOUT CONCOMITANT INFLAMMATORY BOWEL DISEASE. A MULTICENTER STUDY WITH 886 PATIENTS. . A MULTICENTER STUDY WITH 886 PATIENTS

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Background: The prevalence of inflammatory bowel disease (IBD) in ankylosing spondylitis (AS) has been reported to range between 6%-15%. As occurs with axial spondyloarthrtitis (axSpA), patients with IBD have an increased risk of cardiovascular (CV) events because of a process of accelerated atherosclerosis[1]. However, it is unknown whether the presence of IBD confers an increased cardiovascular CV risk in patients with axSpA.

Objectives: To compare the atherosclerotic burden, CV events, CV risk factors and disease related factors including structural damage in axSpA patients with and without IBD.

Methods: Cross-sectional analysis of the AtheSpAin cohort, a Spanish multicenter cohort designed for the study of atherosclerosis in axSpA, comparing axSpA patients with and without concomitant IBD. Background information on CV and disease-related factors was reviewed. Data on CV risk and disease status at the time of the study were also obtained, including the structural damage assessed by the presence of syndesmophytes, the severity of the sacroiliitis (defined as grade 3 or 4 according to New York criteria), and the modified Stoke Ankylosing Spondylitis Spinal Score (mSASSS). Carotid ultrasound (US) was performed in all patients at the time of the study, including measurement of carotid intima-media wall thickness (cIMT) and plaque detection according to the Mannhein consensus criteria.

Results: A set of 886 axSpA patients were included. 829 (93.6%) of them had no concomitant IBD, which was present in 57 (6.4%) patients. Age, sex and AS/nr-axSpA ratio were comparable in both groups (Table 1. next page). Patients with IBD were characterised by a lower prevalence of HLA B27 (46% vs 72%, p=0.01) and a higher presence of concomitant psoriasis (21% vs 10%, p=0.01)

Regarding peripheral disease (history of synovitis, enthesitis, dactylitis) and hip involvement, no differences were found between both groups. There were either no differences in the structural damage found in patients with and without IBD (Table 1. next page).

With respect to the management of the disease, prednisone (21% vs 13%, p = 0.03), DMARDs (54% vs 35%, p = 0.01) and anti-TNFα therapy (54% vs 31%, p = 0.00) were more commonly used in the group with IBD, while treatment with NSAIDs was more frequent in patients without IBD (81% vs 70%, p = 0.04).

Regarding CV risk features, smoking was more frequent in patients without IBD (34% vs 21%, p = 0.045) (Table 1. next page). No differences were observed neither in the lipid profile or blood pressure at the time of the study, nor in the prevalence of CV events (5% vs 4%, p=0.99) (Table 1) and the subclinical atherogenic burden assessed both by the presence of carotid plaques (31% vs 37%, p=0.45) and the cIMT (645 ± 147 mm vs 636 ± 112 mm, p = 0.64) (Table 1. next page).

Conclusion: The presence of IBD does not confer additional CV risk to axSpA. In our series, patients with axSpA and IBD showed a lower frequency of HLA B27 and a higher prevalence of psoriasis.