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tion for >3 years and no evidence of rejection. The dose of IS was minimized in 3-month intervals with laboratory tests performed after each dose reduction to evaluate liver function.

***Results*:** IS minimization was feasible in 87.6% of LTRs. After 36 months of follow-up, 76 out of 97 LTRs were on monotherapy, with 47 of them being on subtherapeutic doses of calcineurin inhibitors and 2 were on spacing protocols with tacrolimus. In 12/97 LTRs (12.4%), liver function tests (LFTs) increased, (in those who had indications, a liver biopsy was performed confirming immunological changes) necessitating the return to the previous IS level which resulted in normalization of LFTs in all patients.

Conclusions: Minimization of IS seems to be a safe procedure to personalize the IS therapy in eligible LTRs.

Table 1. Immunosuppression Therapgy at Baseline and After 36 Months.

	AT BASELINE (N=97)	AT 36 MONTHS (N=97)
COMPLETE WITHDRAWAL	1 (1.03%)	1 (1.03%)
SPACING*	0	2 (2.06%)
SUBTHERAPUTICAL#	24 (24.7%)	47 (48.5%)
MONOTHERAPY		
TAC	24 (24.7%)	45 (46.4%)
CsA	0	2 (2.06%)
MONOTHERAPY	55 (56.7%)	76 (78.4%)
TAC	43 (44.3%)	58 (58.8%)
CsA	5 (5.15%)	9 (9.28%)
MMF	6 (6.19%)	9 (9.28%)
EVE	1 (1.03%)	0§
DUAL THERAPY	39 (40.2%)	18 (18.6%)^
TAC + GCS	17 (17.5%)	6 (6.19%)
TAC + MMF	13 (13.4%)	9 (9.27%)
TAC + EVE	2 (2.16%)	1 (1.03%)
CsA + GCS	2 (2.06%)	0**
CsA + MMF	4 (4.12%)	2 (2.06%)
MMF + GCS	1 (1.03%)	0+++
TRIPLE THERAPY	2 (2.06%)	2 (2.06%)
TAC + GCS + MMF	1 (1.03%)	0****
CsA + GCS + MMF	1 (1.03%)	1 (1.03%)
TAC + GCS + EVE	0	1 (1.03%)*****

* TAC 0.5mg taken 5 times a week
# serum concentration of TAC <5ng/ml or CsA <50ng/ml
§ patient switched to monotherapy with TAC
^ decrease in number due to the patients being converted to monotherapy
** patients converted to monotherapy with cyclosporine A
*** patient converted to monotherapy with MMF
**** patient converted to dual therapy with tacrolimus and MMF
***** addition of everolimus with the intent of withdrawing tacrolimus after consultation with oncological team
Abbreviations used: CsA cyclosporine A, EVE everolimus, GCS glucocorticosteroids, MMF mycophenolate mofetil, TAC tacrolimus

EP174 / #344

New Insights Into Early and Established Rheumatoid Arthritis Subtypes Through Serologic Biomarker Profiling – Part of the Scandra Project

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Background and Aims: Rheumatoid arthritis (RA) is a chronic inflammatory disease with variable clinical presentation, response to therapy, and long-term outcomes. Currently, there is a lack of predictive biomarkers to guide an individualized treatment strategy. Combinations of conventional and novel serological biomarkers might stratify patients for a more personalized approach. We aim to identify new serologic biomarkers by testing samples from large RA patient cohorts, in order to develop algorithms that bring personalized medicine into clinical rheumatology practice.

***Methods*:** We included 808 baseline samples from Norwegian patients with RA, including 319 early RA (eRA) and 483 with established RA (estRA). We used EliA™ technology (Thermo Fisher Scientific, Sweden) to measure anti-CCP IgG/A, RF IgM/A/G, and the RUO assay anti-RA33 IgM/A/G. Novel biomarkers were investigated using an in-house research multiplex chip assay containing native, citrullinated or acetylated peptides.

***Results*:** in both eRA and estRA patient samples, 70% were positive for both anti-CCP IgG and RF IgM. Among the remaining 30% (called seronegative group), a significant amount was positive for anti-RA33 IgM/A/G (42% in eRA and 33% in estRA patient samples). The measurement with our multiplex chip revealed additional biomarkers that were positive in the seronegative group: the most promising candidate was a peptide variant of fibrinogen with a sensitivity of 15% and 10% in eRA and estRA patient samples, respectively.

***Conclusions*:** Our study highlights the value of combining different technologies and datasets, resulting in the identification of possible biomarkers that can be used to create a unique algorithm with potential benefits for patients and the medical community.

E-POSTER VIEWING 19: CLINICAL PRACTICE - DIAGNOSTICS: BIG DATA, PREDICTION, MONITORING AND PREVENTION

EP175 / #528

Risk Factors Associated with the Development of Interstitial Lung Disease in Rheumatoid Arthritis in A Guatemalan Outpatient Clinic

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Background and Aims: Pulmonary manifestations affect 5 to 10% of RA patients. Some of the associated factors that have been described are advanced age, being men, RA activity, anti-cyclic citrullinated peptide (Anti-CCP) or Rheumatoid factor (RF) positivity, and environmental factors such as smoking. The objective of this study was defining risk factors associated with the development of interstitial lung disease (ILD) in patients with rheumatoid arthritis.

***Methods*:** Cross-sectional, retrospective study of patients with diagnosis of RA fulfilling the 2010 ACR/EULAR criteria, evaluated in the Rheumatology outpatient clinic, from December 1st, 2008, to May 31st, 2023. ILD was diagnosed by high-resolution computed tomography or biopsy.

***Results*:** A total of 322 files were reviewed, of which a total of 14 cases (4.35%) were defined as ILD associated with RA. The main characteristics are shown in Figure 1. Data was analyzed using multivariable logistic regression, obtaining a global prediction of 75% for ILD development, with significant ORs for the variables time of diagnosis of ILD, use of glucocorticoids, methotrexate, and positivity Anti CCP, as observed in Figure 2. A survival and risk analysis by Kaplan Meier and Hazard Plot was used for the appearance of ILD in association with time of RA diagnosis, showing that the risk of ILD increases after of 10 years of the diagnosis, with a risk of 2.18 (6.021-14.6) as shown in Figure 3.

***Conclusions*:** The risk factors associated with AR-ILD in our population, behave in a similar way to other latitudes of the world, especially the RA disease duration at the diagnosis of ILD.

Table 1.

	RA-ILD n:14	Non ILD-RA n:14	P value
Age mean (+/- SD) *	63.4 (11.0)	63.3 (14.7)	0.98
Female (%)	14 (100)	9 (64.3)	0.014
RA disease duration (+/- SD) *	14.14 (8.71)	12.86 (7.14)	0.63
Mean age of RA diagnosis (+/- SD) *	49.29 (11.7)	50.5 (17.7)	0.13
Current smokers n (%)	5 (35.7)	3 (21.4)	0.40
Smoking Index (+/- SD)	1.69 (3.48)	0.19 (0.53)	0.015
BMI			0.40
Underweight n (%)	1 (7.1)	2 (14.3)	-----
Normal n (%)	6 (42.9)	1 (7.1)	-----
Overweight n (%)	3 (21.4)	6 (42.9)	-----
Obese n (%)	3 (21.4)	9 (28.6)	-----
Extremely Obese n (%)	1 (7.1)	1 (7.1)	-----
Treatment			
Glucocorticoids n (%)	14 (100)	11 (78.6)	0.067
csDMARDs n (%)	14 (100)	14 (100)	1
MTX n (%)	12 (85.7)	14 (100)	0.54
Dosis media de MTX (+/- DS)	9.64 (5.53)	12.6 (4.43)	0.41
Tiempo medio uso MTX (+/- DS) **	59 (54.36)	120.43 (84.73)	0.31

	OR	95% IC
Age >50 years	2.18	0.17 - 27.07
Sex	0.39	0.23 - 0.65
Current Smokers	2.037	0.37 - 3.9
Obesity	0.27	0.052 - 1.4
Mena age or RA diagnosis	1.8	0.39 - 8.18
RA Diseases duration**	10.31	6.02 - 14.6
Disease activity		
Remission	0.68	0.12 - 3.85
Mild	1.63	0.22 - 11.70
Moderate	0.48	0.32 - 0.71
High	0.48	0.32 - 0.71
Erosive disease	2.03	0.37 - 10.9
Glucocorticoids	2.27	1.46 - 3.53
MTX	2.16	1.43 - 3.28
Biologic DMARs	1.38	0.56 - 3.41
RF Positive	2.16	0.17 - 27.08
Anti CCP Positive	10.8	1.69 - 68.93

Table 2.

	OR	95% IC
Age >50 years	2.18	0.17 - 27.07
Sex	0.39	0.23 - 0.65
Current Smokers	2.037	0.37 - 3.9
Obesity	0.27	0.052 - 1.4
Mena age or RA diagnosis	1.8	0.39 - 8.18
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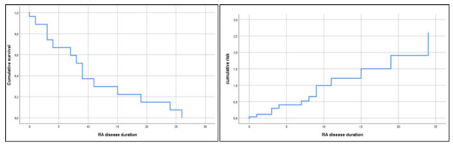

Figure 3.

EP176 / #766

Left Ventricular Diastolic Dysfunction Correlates with Pro-Autoimmune Pattern in Essential Arterial Hypertension

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***Background and Aims*:** Low-grade systemic inflammation facilitating autoimmunity is an important mechanistic component of heart failure (HF) with preserved left ventricular (LV) ejection fraction (EF) (HfpEF). The aim of this study was to estimate serum proinflammatory biomarkers (C-reactive protein (CRP), tumor necrosis factor alpha (TNF-α), and interleukin-6 (IL-6)) in middle-aged males (M) and females (F) with essential hypertension (HTN) depending on LV diastolic dysfunction (LVDD).

***Methods*:** The main group comprised 55 M and 49 F with the first- to second-severity grade HTN with LV EF ≥50%. Patients had sinus rhythm, the 1st or the 2nd severity degree LVDD, LV hypertrophy, left atrium dilatation, and NT-proBNP >125 pg/mL. Comparison group: 30 hypertensives without HF; control group: 31 normotensives. Quantitative features were compared using the Mann–Whitney test, median χ2, ANOVA module. Spearman's rank correlation coefficients were determined to identify the relationship between the proinflammatory pattern and exercise tolerance.

***Results*:** Hypertensive M had markedly higher CRP, TNF-α, and IL-6 levels compared to F. All mean values corresponded to reference range. In patients with second-degree LVDD, CRP, TNF-α, and IL-6 levels were significantly greater than in subjects with the 1st degree LVDD (both within M and within F samples). Significant negative associations between CRP, IL-6, TNF-α levels and the 6 min walk test existed both in hypertensive M and F.

***Conclusions*:** The study demonstrated a close relationship between the proinflammatory/pro-autoimmune pattern of serum markers and LVDD or exercise tolerance indicators, regardless of the patients' sex. LVDD pathogenesis may include systemic inflammatory/autoimmune links.

EP177 / #839

Biomarkers of Endothelial Injury in a Child with Raynaud's Phenomenon and Newly Diagnosed Systemic Lupus Erythematous: Case Report

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Background and Aims: Systemic lupus erythematosus (SLE) is a systemic autoimmune condition with multisystem involvement. Literature data suggest that increased levels of biomarkers of endothelial injury and hypercoagulability may correlate with disease activity.

***Methods*:** We describe a case of a 17-year adolescent with longstanding Raynaud phenomenon who developed generalized edema and acute kidney injury, followed by a diagnosis of juvenile SLE.

***Results*:** An adolescent female with longstanding isolated Raynaud phenomenon was admitted to nephrology unit of a reference hospital complaining on progressive, generalized edema. She had rapidly progressive increase in creatinine and urea, and nephrotic-range proteinuria. She was diagnosed with acute glomerulonephritis but due to Raynaud phenomenon and severe renal disease, she was seen by rheumatologist. Antinuclear antibodies, anti-double stranded DNA and anti-Smith ab were ordered and returned positive. Complement fractions were reduced. Antiphospholipid antibodies were negative. A diagnosis of jSLE was made, with a SELENA-SLEDAI index of 45 points, indicating high disease activity. D-dimers were high. Capillaroscopy revealed non-specific pattern and capillary sludging. Von Willebrand factor and tissue plasminogen levels were abnormal, suggesting endothelial injury and hypercoagulable state. She was treated with high dose prednisolone and cyclophosphamide with clinical and laboratory improvement, but still presenting signs of vasculopathy.

***Conclusions*:** Emergent literature data suggest that dysregulated endothelial markers are promising biomarkers for monitoring disease activity and even subclinical inflammation. More studies are needed to understand the correlations.

EP178 / #379

Haptoglobin As a Novel Marker of Adult IgA Vasculitis Renal Involvement

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Background and Aims: Adult immunoglobulin A vasculitis (IgAV) is a small vessel leukocytoclastic vasculitis, characterized by variable clinical presentation. Currently used markers are suboptimal in predicting severe renal involvement and the need of aggressive treatment vs. mild and self-resolving skin limited disease. Our aim was to identify potential biomarkers through RNA sequencing of IgAV leukocytes and skin.

Methods: Peripheral blood leukocytes and skin biopsy samples were collected from treatment-naïve adult IgAV patients at the time of diagnosis with: 1) IgAV nephritis (n=3), 2) skin-limited IgAV (n=3), and age-/sex-matched HC (n=3) for RNA sequencing analysis. Haptoglobin serum level was measured in 157 treatment-naïve adult IgAV patients (31% with IgAV nephritis).

Results: in both leukocytes and skin of IgAV patients with nephritis, we found 45 overlapping differentially expressed genes, thereby