REFERENCES

- [1] Suzuki T, Yoshida R, Hidaka Y, Seri Y. Proliferative Synovitis of the Shoulder Bursae is a Key Feature for Discriminating Elderly Onset Rheumatoid Arthritis Mimicking Polymyalgia Rheumatica From Polymyalgia Rheumatica. *Clin Med Insights Arthritis Musculoskelet Disord* 2017;10: 1179544117745851.
- [2] Suzuki T, Yoshida R, Okamoto A, Seri Y. Semiquantitative Evaluation of Extrasynovial Soft Tissue Inflammation in the Shoulders of Patients with Polymyalgia Rheumatica and Elderly-Onset Rheumatoid Arthritis by Power Doppler Ultrasound. *Biomed Res Int* 2017;2017: 4272560.

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AB1152

CORRELATING SERUM RESISTIN LEVEL TO ULTRASONOGRAPHIC FINDINGS OF OSTEOARTHRITIC KNEES AFTER INTRA-ARTICULAR GLUCOCORTICOID INJECTION

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Background: Osteoarthritis (OA) is one of the ten disabling diseases affecting 9.6% of men and 18% of women aged over 60 worldwide (1). OA characterized by articular cartilage loss, subchondral bone remodeling, soft tissue damage and low grade synovitis. It is the most common form of arthritis and major cause of disability in the adult population (2). The main source of resistin in humans is mononuclear cells (3). Evidence has shown that higher serum levels of resistin in patients with severe OA compared to controls with no OA and resistin are detected in both serum and synovial fluid, proving its systematical and local involvement in inflammatory changes of OA (4).

Objectives: The aim of this work is to study the effect of local GC intra articular injection on the level of serum resistin in OA knees and to study the relation between different serum levels of resistin and US findings of the knee.

Methods: Thirty patients with primary knee OA Grade 2-3 Kellgren Lawrence score (5) in acute flare according to ACR criteria with or without effusion will be recruited for the study from the Physical medicine, Rheumatology and Rehabilitation Outpatient Clinic of Al-Azhar University Hospitals starting from November 2017 till May 2018.

Patients with secondary OA. All systemic autoimmune diseases. Previous local GC injection within 3 months preoperative evaluation were excluded. Twenty healthy individuals matched for age, sex and BMI with patients were also enrolled in this study as a control group.

Serum Resistin level was measured and Musculoskeletal ultrasound examination of the knee before and three months after steroid injection was done by TOSHIBA APILO 400. linear probe frequency 12L5. Effusion and Synovitis were assessed.

Results: Serum resistin showed significant difference (p-value < 0.05) before and after injection. It was 7.6 ng/ml in patients before injection and 5.1 ng/ml in patients after injection.

Groups Variables		Before (N = 30)	After (N = 27)	p-value
Resistin (ng/ml)	Mean	7.6	6.9	0.3
±SD	2.8	2.6		

US showed significant difference (p-value < 0.001) before and after injection as regard effusion level.

Groups Variables		Before (N = 30)	After (N = 27)	p-value
U/S	No effusion	0 (0%)	14 (52%)	< 0.001*
	Mild effusion	11 (37%)	10 (37%)	
Moderate efusin		19 (63%)	3 (11%)	

Conclusion: Resistin could be considered as an important severity marker of knee OA. Serum resistin level is markedly decreased after intra articular steroid injection into OA knee joint. The longer the duration of illness the higher the resistin level. The older the age the higher the resistin

level. The longer the duration of illness, the higher the radiological grade..

REFERENCES

- [1] Hardcastle SA, Gregson CL, Deere KC, Smith GD (2013): High bone mass is associated with an increased prevalence of joint replacement: a case –control study. *Rheumatology*, 52 (6): 1042-51.
- [2] Karvonen-Gutierrez CA, Harlow SD, Mancuso P, Jacobson J (2013): Association of leptin levels with radiographic knee osteoarthritis among a cohort of midlife women, *Arthritis Care and Research*, 65 (6): 936-44.
- [3] Lazar MA (2007): Resistin and Obesity associated metabolic diseases. *Horm Metab Res.*, 39:710-6.
- [4] Perruccio V, Mahomed N, Chandran V, Gandhi R (2014): Plasma adipokine levels and their association with overall burden of painful joints among individuals with hip and knee osteoarthritis. *Journal of Rheumatology*, 41 (2): 334–337.
- [5] Kellgren J and Lawrence J (1957): Radiological assessment of osteoarthritis. *Ann Rheum Dis.*, 16 (4):494-502.

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AB1153

EVALUATION OF DIAGNOSTIC DISCREPANCY USING THE ASAS CRITERIA AND F-18 NaF PET/CT IN PATIENTS WITH SUSPECTED AS

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Background: The latest ASAS diagnostic criteria allow early diagnosis of ankylosing spondylitis by using MRI. Nuclear imaging techniques may detect increased bone turnover not only during inflammation, but probably also paralleling postinflammatory reparative changes at starting point of new bone formation.

Objectives: We focus on diagnostic discrepancy to evaluate AS between fluorine-18 sodium fluoride (F-18 NaF) PET/CT and assessment of spondyloarthritis international society (ASAS) criteria in patients with chronic low back pain suspected ankylosing spondylitis

Methods: Sixty-eight patients with chronic lower back pain over 3 months and limited lumbar movement were included. Among them, 49 patients who fulfilled ASAS diagnostic criteria were included as AS groups and 19 others were controlled. For clinical assessment, ESR, CRP, BASDAI, and BASFI scores were measured. For imaging assessment, conventional radiography for sacroiliitis and F-18 NaF PET/CT were performed. We defined AS-positive lesions on PET/CT as uptake of sacroiliac joint, syndesmophyte, enthesitis lesions and facet joint.

Results: No significant differences were observed in the baseline demographic evaluation between two groups in terms of age, sex, follow-up period and clinical parameters including BASDAI, BASFI, ESR level. However, there were significant differences in terms of HLA-B27 positive value, CRP level and standard uptake value ratio (SUVr) of sacroiliac joint in patients fulfilled ASAS criteria.

Conclusion: In diagnosing AS, F-18 NaF PET/CT showed 79.59% sensitivity, 84.21% specificity and 80.88% accuracy. This shows the diagnostic value of the F-18 NaF PET/CT, which can be a good alternative to the diagnosis of early ankylosing spondylitis, and can evaluate whole body lesions in a single session.

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AB1154

CLINICAL SIGNIFICANCE OF MONOSPECIFIC ANTI-DFS70 IN ANTINUCLEOLAR ANTIBODY (ANA)-POSITIVE PATIENTS

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Background: The most commonly used method for ANA detection is the indirect immunofluorescence test (IFI) on HEp-2 cells. Among ANA, anti-dense fine speckled (DFS) 70 antibodies produce a pattern (nuclear dense fine speckled) that can be confused with homogeneous or fine speckled pattern (typical of ANA-associated rheumatic disease, AARD). The presence of anti-DFS70 have been reported in a variety of clinical

conditions. Isolated anti-DFS70 could be used as a differential marker for AARD.

Objectives: To analyse the clinical significance of isolated anti-DFS70 antibodies.

Methods: All the serum samples obtained in our hospital between January 2017 to December 2018 that were positive for ANA testing and negative for anti-extractable nuclear antigen (ENA) antibodies panel, were tested for anti-DFS70 (HEp-2/DFS70 knock-out IFA, A.MENARINI diagnostics). Demographic and clinical data were collected from anti-DFS70 positive adult patients.

Results: From 145 samples tested 68 were found positive for monospecific anti-DFS70: 82.4% were women and the median age was 55.4±14.4 years. The ANA titer was greater than 1/320 in all of cases and 26.5% of patients had two positive determinations DFS70 separated 15.4±9.2 months. The reasons for requesting ANA were diverse (arthralgias in 33.8% of the cases), and most of them were ordered from primary care. Clinical follow-up was performed in 66.1% of the patients for a mean of 2.9 years (between 2 months and 7 years). Only 3 patients (4.1%) had a defined AARD: 2 systemic lupus erythematosus and 1 antiphospholipid syndrome, diagnosed years before. There were 5 patients with rheumatoid arthritis (7.3%) and one had sarcoidosis. Nineteen patients (27.9%) had an organ-specific autoimmune disease: 14 autoimmune hypothyroidism, 2 autoimmune hepatitis, 2 primary biliary cholangitis and 1 immune thrombocytopenia. Six patients (8.8%) were followed up because of undifferentiated connective tissue disease (they did not meet criteria for AARD). Other clinical associations found were obesity (13.2%), depression (8.8%), sleep disorders (8.8%), fibromyalgia 5.8%, cancer, asthma and psoriasis (2.9% each one of them). Thirty-nine patients (57.3%) did not have any autoimmune disease (systemic or localized).

Conclusion: In our experience, patients with monospecific anti-DFS70 ANA rarely present AARD, even though 42.7% of subjects showed autoimmune features. Rheumatoid arthritis patients occasionally had an isolated anti-DFS70 ANA. Therefore isolated anti-DFS70 may be potentially considered as marker of benign autoimmunity.

REFERENCES

- [1] Michael Mahler, Luis E. Andrade, Carlos A. Casiano, Kishore Malyavantham & Marvin J. Fritzler (2019): Anti-DFS70 antibodies: an update on our current understanding and their clinical usefulness, Expert Review of Clinical Immunology, DOI: 10.1080/17446666X.2019.1562903.
- [2] Bonroy C, Schouwers S, Berth M, Stubbe M, Piette Y, Hoffman I, et al.: The importance of detecting anti-DFS70 in routine clinical practice: comparison of different care settings. Clin Chem Lab Med 2018; 56:1090-9.
- [3] Shovman O, Gilburd B, Chayat C, Amital H, Langevitz P, Watad A, et al.: Prevalence of anti-DFS70 antibodies in patients with and without systemic autoimmune rheumatic diseases. Clin Exp Rheumatol 2017; 36:121-6.

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AB1155

CORRELATION BETWEEN NAILFOLD VIDEOCAPILLAROSCOPY PATTERNS, LEFT VENTRICLE DYSFUNCTION AND PULMONARY DISEASE IN SYSTEMIC SCLEROSIS

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Background: Systemic Sclerosis (SSc) is a multisystem connective disease characterized by a microvascular damage, which leads to systemic fibrosis, immune dysregulation and progressive involvement of internal organs [1].

According to the classification of the morphological aspects, into the scleroderma pattern proposed by Cutolo et al. are described the early, active and late patterns.

Objectives: The aim of our study is thus to report a correlation between specific nailfold videocapillaroscopy pattern and internal organ involvement.

Methods: All enrolled patients were diagnosed for SSc, according to the American College of Rheumatology criteria and underwent an echocardiographic examination and a nailfold videocapillaroscopy.

Myocardial function parameters considered were: global contractility (computed with the Simpson method), linear contractility (computed through the MAPSE) [2], diastolic dysfunction (through the analysis of the transmitral flow) [3]; whilst those of lung damage were: PAPs and the evaluation of the right ventricle contractility through the TAPSE [4].

Statistics were performed with SPSS 20 software, by using the Mann Whitney U Test and the Fisher Test.

Results: We enrolled 27 patients, of which 16 showing "active pattern" and 11 "early pattern", compared to a group of 21 healthy controls.

Of the 11 patients belonging to the "early" group, 1 resulted affected by diastolic dysfunction, whilst 3 had pulmonary hypertension, defined by PAPs ≥40 mmHg [4] (early vs controls; p=0.03). In the 16 patients of the "active" group, instead, 5 were found to have a diastolic dysfunction (active vs controls; p=0.01) and 6 pulmonary hypertension (active vs controls; p=0.003). In the group with "active" pattern we also observed a reduction in TAPSE compared to the control group (2.0 ± 0.2 vs 2.2 ± 0.2; p=0.025) and compared to the group with early pattern (2.0 ± 0.2 vs 2.2 ± 0.3; p=0.07).

No presence of modifications in the global contractility emerged; however, we observed a progressive reduction of the MAPSE (controls 1.76 ± 0.08; early 1.57 ± 0.04; active 1.49 ± 0.12), which resulted statistically significant among the different comparisons (controls vs early p=0.001; controls vs active p=0.0001; early vs active p=0.04).

Conclusion: The analyses showed a strict correlation between the severity of the microvascular alterations, reported by nailfold videocapillaroscopy, and the severity of the cardiopulmonary damage, expressed by an increase in the percentage of pulmonary hypertension, diastolic dysfunction and a progressive reduction of MAPSE and TAPSE.

Abstract AB1155 Table 1. early vs controls

	EARLY	CONTROLS	P
PAPs	32,3 ± 5,4	22,6 ± 6,7	0,0001
TAPSE	2,2 ± 0,3	2,2 ± 0,2	NS
MAPSE	1,57 ± 0,04	1,76 ± 0,08	0,0001
EF	65 ± 4	64 ± 2,7	NS
E/A	1,34 ± 0,2	1,38 ± 0,19	NS
DECT	148 ± 23	163 ± 27	NS
Diastolic dysfunction	1(11)	0(21)	0,3
Pulmonary hypertension	3(11)	0(21)	0,03

Abstract AB1155 Table 2. active vs controls

	ACTIVE	CONTROLS	P
PAPs	34 ± 7,8	22,6 ± 6,7	0,0001
TAPSE	2,0 ± 0,2	2,2 ± 0,2	0,025
MAPSE	1,49 ± 0,12	1,76 ± 0,08	0,0001
EF	65 ± 4	64 ± 2,7	NS
E/A	1,34 ± 0,4	1,38 ± 0,19	NS
DECT	157 ± 24	163 ± 27	NS
Diastolic dysfunction	5(16)	0(21)	0,01
Pulmonary hypertension	6(16)	0(21)	0,003

REFERENCES

- [1] LeRoy EC. Systemic sclerosis. A vascular perspective. Rheum Dis Clin North Am.
- [2] Ibadete Bytci, Left atrial change in early stages of heart failure with preserved ejection fraction. Echocardiography
- [3] Sherif F. Recommendations for the Evaluation of Left Ventricular Diastolic Function by Echocardiography. Journal of the American Society of Echocardiography
- [4] Luke S. Howard, Echocardiographic assessment of pulmonary hypertension: standard operating procedure. European Respiratory Review

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AB1156

DEFINITION OF TWO NEW ULTRASOUND ENTHESEOPHYTES SCORES: APPLICATION IN A CONSECUTIVE SERIES OF IBD PATIENTS

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Background: Recent studies have developed criteria for US definition of enthesal abnormalities [1] however no actual scores are available to