pg/mL, $p = 0.007$). The follow up study, the patient with increased salivary IGHG3 had significantly different in changes of hemoglobin (-0.85 ± 0.87 vs $0.42 \pm 0.99/\mu\text{L}$, $p = 0.02$), and changes of complement 3 (-7.67 ± 14.15 vs $+7.0 \pm 9.34$, $p = 0.02$) compared to those not. In addition, the patients with increased salivary lactotransferrin had significantly different in changes of ESR (-2.0 ± 4.6 vs 8.4 ± 9.56 , $p = 0.02$) compared to those not, and salivary lactotransferrin levels negatively correlated with complement 3 levels ($r = -0.5$, $p = 0.02$).

Conclusion: Salivary IGHG3 and lactotransferrin levels were significantly increased in patients with SLE compared to those in patients with RA or HC, and could be used as potential biomarkers of SLE.

REFERENCES

- [1] Baldini C, Giusti L, Ciregia F, Da Valle Y, Giacomelli C, Donadio E, Serinisi F, Bazzichi L, Giannaccini G, Bombardieri S, Lucacchini A: Proteomic analysis of saliva: a unique tool to distinguish primary Sjogren's syndrome from secondary Sjogren's syndrome and other sicca syndromes. *Arthritis Res Ther* 13: R194, 2011
- [2] Lamy E, Mau M: Saliva proteomics as an emerging, non-invasive tool to study livestock physiology, nutrition and diseases. *J Proteomics* 75: 4251-4258, 2012

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AB1150 IMPLICATIONS OF CORONARY ARTERY CALCIUM AND ITS PROGRESSION AS MARKERS OF PLAQUE VULNERABILITY AND PATIENT RISK IN RHEUMATOID ARTHRITIS

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Background: Atherosclerotic plaque calcification represents a stabilizing physiologic process; calcified coronary plaques (CP) are less prone to rupture and yield lower risk of cardiovascular events (CVE) compared to non-calcified (NCP) or mixed- partially calcified- plaques (MP). Interestingly, higher coronary artery calcium score (CACS) and its progression associate with higher event risk in general patients. We, likewise, reported that CACS predicted cardiac events in rheumatoid arthritis (RA) patients independently of risk factors or cardiac risk scores.

Objectives: To address this paradox, we evaluated the contribution of vulnerable MP burden to CACS as well the influence of change in MP burden on CACS progression in RA patients who underwent coronary anatomy evaluation with computed tomography angiography (CCTA).

Methods: One hundred-one patients underwent a repeat CCTA within 83 $\pm$ 3.6 months from baseline. Total number of segments with plaque (segment involvement score-SIS) and cumulative stenosis severity rendered by plaque over all evaluable segments (segment stenosis score-SSS) were computed for all participants. Coronary lesions were defined as non-calcified (NCP), mixed (MP) or calcified (CP). Generalized Linear Models predicted the contribution of MP and CP plaque burden to the baseline and follow-up CACS as well as the influence of change in the burden of the respective lesions on CACS progression.

Results: Mixed and CP burden (SSS-MP and SSS-CP respectively) strongly correlated with CACS at both baseline ($r_{mp} = 0.75$ and $r_{cp} = 0.77$, $p < 0.001$) and follow-up ($r_{mp} = 0.57$ and $r_{cp} = 0.68$, $p < 0.0001$), whereas non-calcified plaque did not ($r_{ncp} = -0.03$, $p = 0.85$ and -0.16 , $p = 0.30$ respectively). Both MP and CP burden comparably and significantly contributed to CACS magnitude at both times (table 1); MP accounted for 36.5% and 38.5% of explainable variance in CACS while CP accounted for 63.5% and 61.5% of it at baseline and follow-up respectively (all $p < 0.001$). Likewise, change in MP and CP burden from baseline to follow-up significantly contributed to and justified 27% and 73% of explainable CACS change variance.

Conclusion: The vulnerable MP and the more stable CP burden and their change significantly and collectively contributed to CACS at any time as well as its progression respectively in RA. Therefore, the MP burden and its change embody the vulnerability components within the higher baseline and progressing CACS scores explaining the higher CVE risk observed.

Abstract AB1150 Table 1. Impact of MP and CP burden and their change on CACS and its progression in RA

CCTA	Model	predictor	Beta	p-value	Raw RW (95% CI)	Rescaled RW
Baseline	Model 1	SSS-MP	.564	.000	0.258 (0.085-0.472)	36.5%
		SSS-CP	.532	.000	0.450 (0.232-0.662)	63.5%
	Model 2	SSS-MP	.548	.000		
		SSS-CP	.518	.000		
		Age	.062	.092		
Gender			-.007	.83		
Follow-up	Model 1	SSS-MP	.416	.000	0.250 (0.112-0.399)	38.5%
		SSS-CP	.634	.000	0.399 (0.235-0.554)	61.5%
	Model 2	SSS-MP	.399	.000		
		SSS-CP	.610	.000		
		Age	.086	.070		
		Gender	-.030	.48		
	Model 1	SSS-MP	.388	.003	0.106 (0.017-0.251)	27%
		SSS-CP	.585	.000	0.288 (0.115-0.483)	73%
		SSS-MP	.314	.010		
		SSS-CP	.538	.000		
Change (follow-up - baseline)	Model 2	Age	.341	.005		
		Gender	-.063	.58		

Model 1: unadjusted, Model 2: age and gender adjusted, RW: Relative Weight

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AB1151 APPLICATION OF ULTRASOUND TO DISTINGUISHING PMR FROM POLYARTHRALGIA

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Background: Japan is the world's most aged country. The number of patients with polymyalgia rheumatica (PMR) is expected to increase more. Classification criteria including ultrasound findings were published in 2012, but the ability to differentiate PMR from rheumatoid arthritis (RA) was not significant. We will clarify whether recently reported ultrasound findings (1, 2) which could be characteristic in PMR are helpful for distinguishing from other diseases and treatment outcome in suspected PMR patients.

Objectives: Patients who were clinically suspected of PMR and underwent ultrasound examination from March 2015 to July 2018.

Methods: Recorded ultrasound images were retrospectively interpreted by the ultrasound expert, who was blind for clinical information. They were classified into three groups of PMR, RA, others/no inflammation. Initial dose of glucocorticoid (GC), therapeutic response, presence or absence of relapse, and concomitant medications were collected and compared among the 3 groups. Cases in which steroids had already been used before ultrasound examination were excluded from the analysis.

Results: The number of subjects was 81, and the number of ultrasound examination was 88. The ultrasound expert classified 29 PMR, 20 RA, 3 other/no inflammation. 18.5% (15/81) of the subjects were improved with no GC and relapse. The average prednisolone (PSL) dose was 15.3 mg in the PMR group, and 9.7 mg in the RA group. Concomitant medications were introduced in 31% (9/29) of PMR group, in 65% (13/20) of RA group.

Conclusion: Ultrasound is useful for distinguishing PMR from seronegative RA and other arthralgia. These findings showed that ultrasound is useful for the proper use of GC and concomitant medications.

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 effusion		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