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.

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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.