in the dorsal and palmar view at wrist, MCP, PIP and DIP 2-5 joint levels for synovitis and tenosynovitis.

Subsequently, a comparison of the findings in the affected joints was performed using US as the reference method. Furthermore, AUC was calculated to show the extent to which a new joint inflammation was associated with a change in diagnosis.

Results: Of the 60 patients initially examined (1), 30 patients (dropout rate 50%) were followed-up approximately 3 years later. The patients were newly divided into 3 groups: Diagnosed PsA (n=14, Group I), still suspected PsA, (n=6, Group II) and in-between diagnosed PsA (n=10, Group III). Patients with a change in the diagnosis from suspected to diagnosed PsA (Group III) showed a significantly increased prevalence of joints with pathological findings in FOI (46% at baseline, 88% at follow-up; $p=0.046$), with an unchanged joint distribution pattern, i.e. with a dominant involvement of the DIP joints. Compared to baseline, patients of group III were three times more common to show enrichment in p3 in FOI at follow-up (1.7% vs. 7.0%; $p=n.s.$). Newly detected pathologic joints by FOI (PVM, p2) and US at follow-up were positively associated with the change of diagnosis from suspected PsA to confirmed PsA (FOI: AUC 0.78; GSUS: AUC 0.77). Using US in greyscale as reference, inflammatory changes in the joints were diagnosed in all 3 cohorts by means of FOI in P1 and P3 with high specificity (Group III: 90.6%, Group II: 97.5%, Group I: 94.2%) and low sensitivity (Group III: 24.4%, Group II: 20.3%, Group I: 19.8%).

Conclusion: FOI appears to be helpful to differentiate between acute and chronic disease stages. Furthermore, it is specific for detecting inflammatory changes in the joints of the hands in PsA – in comparison to US. FOI could thereby become a helpful tool as a “dermatological-screening” method to select psoriasis patients with indication for further rheumatological evaluation.

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SAT0408

UTILITY OF CAROTID ULTRASOUND AND FRAMINGHAM RISK SCORE ON DISCRIMINATING CORONARY ARTERY DISEASE IN PATIENTS WITH PSORIATIC ARTHRITIS (PSA)

I.T. Cheng¹, K. T. Wong², E. Li¹, P. C. Wong², B. T. L. Lai³, C. W. Yim³, S. K. Y. Ying⁴, K. Y. Kwok⁵, M. Li¹, T. K. Li¹, J. J. W. Lee¹, A. P. W. Lee¹, L. S. Tam¹.
¹The Chinese University of Hong Kong, Hong Kong, Hong Kong (SAR); ²Prince of Wales Hospital, Hong Kong, Hong Kong (SAR); ³Tseung Kwan O Hospital, Hong Kong, Hong Kong (SAR); ⁴Princess Margaret Hospital, Hong Kong, Hong Kong (SAR); ⁵Queen Elizabeth Hospital, Hong Kong, Hong Kong (SAR)

Background: While carotid ultrasound (US) has been advocated for cardiovascular (CV) risk screening in patients with rheumatoid arthritis as various traditional scores underestimate CV risk, whether subclinical carotid atherosclerosis (SCA) is associated with coronary atherosclerosis on coronary computed tomography angiography (CCTA) in patients with psoriatic arthritis (PsA) remains uncertain.

Objectives: This study aimed to identify carotid US parameters which can discriminate PsA patients with coronary artery disease (CAD) and obstructive CAD (O-CAD), and determine the utility in combination with Framingham Risk Score (FRS).

Methods: Ninety-one PsA patients (56 males; age: 50±11years, disease duration: 9.4±9.2years) without overt CV diseases were recruited. Carotid intima-media thickness (cIMT), presence of plaque and total plaque area (TPA) were determined by high-resolution US. CAD was defined as the presence of any coronary plaque on CCTA. O-CAD was defined as >50% stenosis of the lumen. FRS <10% indicates low CV risk, 10-19% indicates intermediate risk while ≥20% indicates high risk (1).

Results: Thirty-five (38%) patient had carotid plaque. Fifty-five (60%) patients had CAD and 9 (10%) patients had O-CAD. 53 (58%), 25 (17%) and 13 (14%) were classified as low, moderate and high CV risk according to the FRS respectively. FRS underestimated the CV risk as only 11/55 (20%) of subjects with CAD were correctly identified as having high CV risk by FRS (Figure 1). Fifteen patients out of 53 (28%) with low CV risk based on FRS were reclassified as high CV risk by the presence of carotid plaque. Nine out of these 15 (60%) had CAD and 1/15 (6.7%) had O-CAD. Concerning the carotid ultrasound parameters, cIMT (mean and maximum) and TPA were increased in both the CAD+ and O-CAD+ group compared to those without CAD or O-CAD (Table 1). Multivariate

logistic regression analysis revealed that mean cIMT (OR=1.06, 95% CI:1.01-1.11, $p=0.013$) was an independent explanatory variables associated with CAD. Meanwhile, mean cIMT (OR=1.06, 95%CI: 1.01-1.11, $p=0.013$) maximum cIMT (OR=1.06, 95%CI: 1.00-1.13, $p=0.043$), and TPA (OR=1.55, 95%CI: 1.01-2.36, $p=0.043$) were independent explanatory variables associated with O-CAD after adjusting for covariates. Based on Receiver Operating Curve (ROC) analysis, an optimal cut off for FRS at 5% and mean cIMT at 0.62mm yield 63% sensitivity and 73% specificity for the presence of CAD (AUC: 0.71, $p=0.001$).

Table 1. Relationship between carotid ultrasound parameters and the presence and extent of coronary artery disease on coronary computed tomography angiography.

	Coronary artery disease					<i>p</i>
	No (n=37)		Yes (n=54)			
Mean carotid IMT, mm	0.63	± 0.12	0.69	± 0.1	0.017	
Maximum carotid IMT, mm	0.77	± 0.17	0.84	± 0.14	0.040	
Carotid Plaque, n, %						
Absence	26	46.4%	30	53.6%	0.156	
Presence	11	31.4%	24	68.6%		
Total plaque area, mm ²	0.0	[0,6]	0.0	[0, 10.8]	0.059	

	Obstructive coronary artery disease					<i>p</i>
	No (n=82)		Yes (n=9)			
Mean carotid IMT, mm	0.65	± 0.12	0.76	± 0.07	0.011	
Maximum carotid IMT, mm	0.80	± 0.16	0.93	± 0.14	0.020	
Carotid Plaque, n, %						
Absence	53	93.0%	4	7.0%	0.235	
Presence	29	85.3%	5	14.7%		
Total plaque area, mm ²	0.0	[0, 7.0]	6.0	[0, 15.3]	0.103	

IMT-intima media thickness; coronary computed tomography angiography.

Conclusion: Increased cIMT and TPA were associated with CAD and O-CAD in PsA patients while the presence of carotid plaque alone was insufficient to discriminate patient with or without CAD. A combination of US parameters should be considered for CV risk stratification in patients with PsA.

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Figure 1.

CV Risk classification based on Framingham risk score (FRS) (A&C) (high CV risk: FRS ≥20%; intermediate CV risk: FRS 10-19%; low CV risk: FRS <10%) and CV Risk classification based on the presence of carotid plaque (high CV risk) and absence of carotid plaque (low CV risk) (B&D) in patient with or without CAD/O-CAD

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SAT0409

BIOLOGIC TREATMENT IN PSORIATIC ARTHRITIS AND AXIAL SPONDYLOPATHY REDUCES SICKNOTES ISSUED BY GPS, DESPITE DELAYS IN DIAGNOSIS: A REAL-LIFE STUDY IN WALES.

E. Choy¹, S. Brophy², R. Cooksey², L. Hanson³, A. Halliday⁴. ¹Cardiff University, CREATE Centre, Section of Rheumatology, Cardiff, United Kingdom; ²Swansea University, Swansea, United Kingdom; ³Novartis Pharmaceuticals UK Limited,