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Topic area: Clinical topics by disease

Topic: 17. SLE, Sjögren's and APS - clinical aspects (other than treatment)

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AN EVALUATION OF CLINICAL OUTCOME MEASURES FOR MUSCULOSKELETAL LUPUS USING ULTRASOUND AS A GOLD STANDARD

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Background: Musculoskeletal symptoms in SLE patients are common, but difficult to assess clinically. Ultrasound (US) is an objective measure of synovitis.

Objectives: To test clinical tools currently used for musculoskeletal lupus against US as a gold standard.

Methods: A multicentre cross-sectional study recruited 107 patients in Leeds and Southampton fulfilling ACR/SLICC criteria for SLE, all had history of musculoskeletal symptoms and 79% had pain at the time of evaluation. Patients with positive CCP or RF were excluded. Patients were clinically assessed using BILAG, SLEDAI, tender joint count (TJC), swollen joint count (SJC), physician and patient VAS (both 0-100, for MSK symptoms). US hand was used to examine joints and tendon sheaths.

Results: There was disagreement between US and clinical joint swelling in 26% of patients. In the 40% with clinical joint swelling, US confirmed this in 83%. 20% of all patients had US synovitis that was not detected clinically. Overall, objective synovitis was found in 40% of patients using clinical swelling and 53% using US. US was correlated with SJC ($R=0.389$, $P<0.001$), MSK-BILAG numeric score ($R=0.503$, $P<0.001$), and physician VAS ($R=0.5$, $P<0.001$), but not with TJC, SLEDAI, or patient VAS. We then looked for clinical appearance of patients with US-proven synovitis: see table 1. We identified significant associations in the whole cohort. In multivariate analysis only physician-VAS was significant ($p=0.018$). However, in 50 patients with no joint swelling, 15 had US synovitis, but no clinical variable could identify this.

Table 1

	US+ve median (IQR)	US-ve median(IQR)	p
MSK- BILAG	2(2)	3(1)	<0.001
SLEDAI	4(6)	2(4)	0.006
Physician VAS	41(50)	8(20)	<0.001
Patient VAS	55(33)	45(70)	0.085
ESR	21(45)	12.5(24)	0.086
TJC	6.5(10)	3(9)	0.034
SJC	1.5(4)	0(0)	<0.001

Conclusions: Swollen Joint Count, Physician VAS, and MSK-BILAG all correlate with true synovitis as defined by US. However, these variables are all based on the clinical detection of joint swelling and 50% of this cohort did not have joint swelling. In the latter group, no clinical variable was helpful in identifying the 30% of patients with US-proven synovitis. US should be used to evaluate MSK-SLE patients who do not have clinical synovitis.

Disclosure of Interest: None declared