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A PROSPECTIVE STUDY TO ASSESS RESPONSIVENESS OF CLINICAL AND ULTRASOUND OUTCOME MEASURES FOR MUSCULOSKELETAL SLE

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My abstract has been or will be presented at a scientific meeting during a 12 months period prior to EULAR 2016: No

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Background: Musculoskeletal manifestations affect up to 95% of SLE patients. Assessment can be problematic as not all patients have swelling. There is a clinical need to better select SLE patients with musculoskeletal symptoms who may respond to therapy and assess their response. We previously analysed 100 patients with MSK symptoms and showed that ultrasound (US) detects synovitis in patients with no clinical swelling.

Objectives: To assess the responsiveness of clinical assessment tools and US in musculoskeletal SLE.

Methods: 107 patients fulfilling ACR/SLICC criteria for SLE with musculoskeletal involvement were analysed in a cross-sectional study. 16 of these with current inflammatory symptoms entered a pilot study of US before and after intramuscular injection of depomedrone 120mg. These 16 patients were followed up and assessed clinically using BILAG, SLEDAI, patient VAS, physician VAS, tender joint count, swollen joint count) and US of hand (joints and tendon sheath) at 0, 2 and 4 weeks.

Results: Of 107 patients only 35 (32.7%) had swelling clinically at baseline but 53(49.5%) had US synovitis. Response in US and clinical parameters for the 16 longitudinal patients is shown in Table1.

Table 1

	Week 0	Week 2	P*	Week 4	P
BILAG-MSK n(%)					
A	6/16 (37.5)	3/16 (18.7)		1/16 (0.06)	
B	6/16 (37.5)	3/16 (18.7		2/16 (12.5)	
C	4/16 (25)	5/16 (31.2)		6/16 (37.5)	
D	0/16 (0)	5/16 (31.2)		6/16 (37.5)	
BILAG improved n(%)	N/A	10/16 (62.5)		13/16 (81)	
SLEDAI MSK Criterion=4 points n(%)	14/16(87.5)	10 /16 (62.5)		9 /16 (56)	
SLEDAI improved n(%)		4/14 (28.5)		5/14 (36)	
TJC(0-28) median(IQR)	8 (4.3-12.3)	4 (1.0 -13.5)	0.228	4 (1-14.8)	0.197
SJC(0-28) median(IQR)	3 (0.3-5)	0 (0-1)	0.059	0 (0-0)	0.003
Symptomatic joints median(IQR)	15 (5.8-21.5)	2 (0-13)	0.047	3.5 (1-14.8)	0.066
Patient VAS(0-100 median(IQR)	55 (30-78.5)	30 (8.8-40)	0.016	35 (10-48.8)	0.059
Physician VAS(0-100 median(IQR)	31 (13-65.5)	23 (5-50)	0.001	21 (3.8-43.5)	0.001
US- total PD median (IQR)	8.5 (4.8-34.8)	1 (0-6.3)	0.002	1 (0-1)	0.001
US-total GS median(IQR)	24 (17-46)	12.5 (5.3-23.8)	0.002	10.5 (7-13.8)	0.001
No. joints with synovitis median(IQR)	8 (5-19.3)	3 (0.8-7.5)	0.004	2 (1-4)	0.001

P values compare 2 and 4 weeks with baseline. Value under .05 considered as trend, values under .025 considered significant.

Conclusions: Although swollen joint count was responsive to change with therapy, US was more sensitive in detecting active joints disease at baseline and showed greater and more significant change with therapy. The responsiveness of

swollen joints likely explains the responsiveness in BILAG musculoskeletal system index and physician VAS. However, tender and symptomatic joint counts, as well as SLEDAI, were poorly responsive to therapy. Overall, US is the tool most responsive to change for monitoring musculoskeletal disease activity in SLE.

Disclosure of Interest: None declared