Objectives: To assess the body composition (BC) and to identify the frequency of sarcopenia (SP) in SSc patients.

Methods: A total of 44 women who met the ACR/EULAR 2013 classification criteria were included. Mean age was 53.2±8.8 years. The median disease duration was 7.0 [4.0;12.0] years. 26 (59.1%) patients had limited and 18 (40.9%) - diffuse cutaneous subtype. Body composition was measured using Dual-energy X-ray absorptiometry (DXA) of whole body. The appendicular lean mass index (ALMI) was calculated as the ratio of appendicular lean mass (ALM) to height (kg/m²). Handgrip measurement and chair stand test were performed. Physical function was measured with the Short Physical Performance Battery (SPPB). SP was diagnosed in agreement with the 2019 revised consensus on definition and diagnosis of SP of the European Working Group on Sarcopenia in Older People 2 (EWGSOP2): handgrip <16kg, chair stand test > 15 seconds for 5 rises, ALM <15 kg or ALMI <5.5 kg/m². Severe SP was detected if the patient additionally had gait speed ≤0.8 m/s or SPPB ≤ 8-point score. Overfat was defined as body fat percentage >35%.

Results: The median bone mineral content was 2.0 [1.8; 2.2] kg, total lean mass - 39.5 [35.7; 45.5] kg, ALM - 16.3 [14.5; 19.4] kg, ALMI - 6.5 [5.7; 7.2] kg/m², trunk fat mass - 13.5 [9.1; 16.7] kg and total fat mass - 26.6 [20.1; 34.5] kg. Body fat percentage was 38.8% [34.2; 42.7]. 9 (20.5%) women had low ALM and low ALMI, 6 (13.6%) - only low ALM. Healthy BC was found in 5 (11.3%), low ALM or low ALMI - in 7 (15.9%), overfat - in 24 (54.5%), low ALM + overfat - in 8 (18.2%) patients. We found no differences in BC between SSc patients with limited and diffuse cutaneous subtype. Low muscle strength (SP probable) was found in 21 (47.7%) women, meanwhile confirmed SP (low muscle strength and muscle mass) was diagnosed in 10 (22.7%) patients, among them 5 (11.4%) persons had severe SP. No significant difference in SP frequency among patients with limited and diffuse cutaneous SSc 4 (15.4%) and 6 (33.3%), respectively, (p=0.27). Osteoporosis was found in 6 (60%) patients with SP without differences in SSc subtypes.

Conclusion: Healthy BC was found only in 11.3% cases, while overfat - in 72.7% and low ALM - in 34.1% SSc patients. SP was detected in 22.7% of women, among them in half of cases - severe SP, without any differences between the limited and diffuse subtypes of the disease.

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POS0840

RISK OF MALNUTRITION IN PATIENTS WITH SYSTEMIC SCLEROSIS-ASSOCIATED INTERSTITIAL LUNG DISEASE (SSC-ILD): FURTHER ANALYSES OF THE SENSICIS TRIAL

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Background: Gastrointestinal (GI) involvement is common in patients with SSc and may lead to weight loss and malnutrition. In the SENSICIS trial in patients with SSc-ILD, nintedanib reduced the rate of decline in forced vital capacity (FVC) (mL/year) over 52 weeks, with mainly GI adverse events. The Malnutrition Universal Screening Tool (MUST) was developed to identify adults who are at risk of malnutrition and has been used in studies of patients with SSc.

Objectives: To evaluate nutritional status over 52 weeks in the SENSICIS trial based on a modified MUST score.

Methods: The SENSICIS trial enrolled patients with SSc-ILD with first non-Raynaud symptom ≤7 years before screening, extent of fibrotic ILD ≥10% on HRCT and FVC ≥40% predicted. Patients who had taken a stable dose of mycophenolate for ≥6 months were eligible to participate. Patients were randomised to receive nintedanib 150mg bid or placebo. Dose reductions to 100mg bid and treatment interruptions were allowed to manage adverse events and specific recommendations were provided for the management of diarrhoea. We calculated a modified MUST score at baseline and weeks 12, 24, 36 and 52 based on (A) BMI, (B) weight loss (week 12 vs baseline; week 24 vs week 12; week 36 vs week 24; week 52 vs week 36), and (C) a surrogate for acute disease effect (if

the patient had any serious adverse event that led to hospitalisation between weight assessments and received ≥1 medication from the WHO classification code for "solutions for parenteral nutrition" for ≥5 days). MUST score at baseline was based solely on BMI. With scores ranging from 0 to 6, the risk of malnutrition is defined as low (score = 0), medium (score = 1) or high (score ≥2).

Results: Among 576 patients who received nintedanib (n=288) or placebo (n=288), mean (SD) age at baseline was 54.0 (12.2) years, weight was 69.7 (15.9) kg and BMI was 25.9 (5.0) kg/m²; median time since onset of first non-Raynaud symptom was 3.4 years; and 75.2% of patients were female. In the nintedanib and placebo groups, respectively, MUST scores suggested that 74.0% and 78.1% of patients were at low risk of malnutrition at baseline and remained at low risk at their last measurement (Table 1). At weeks 12 and 52, respectively, mean (SD) MUST scores were 0.3 (0.6) and 0.4 (0.7) in the nintedanib group and 0.2 (0.5) and 0.2 (0.6) in the placebo group. At weeks 12, 24, 36 and 52, respectively, the proportions of patients at low risk of malnutrition were 81.8%, 80.9%, 72.9% and 76.5% in the nintedanib group and 86.6%, 86.4%, 88.3% and 80.8% in the placebo group; the proportions at medium risk were 12.1%, 13.1%, 18.0% and 13.5% in the nintedanib group and 8.5%, 8.6%, 5.8% and 13.1% in the placebo group; and the proportions of patients at high risk were 6.1%, 5.6%, 8.3% and 9.6% in the nintedanib group and 4.9%, 4.3%, 4.7% and 5.4% in the placebo group.

Table 1. Risk of malnutrition at baseline and at last assessment over 52 weeks in the SENSICIS trial.

Last assessment of risk	Nintedanib (n=288)				Placebo (n=288)			
	Baseline risk				Baseline risk			
	Low	Medium	High	Total	Low	Medium	High	Total
Low	213 (74.0)	1 (0.3)	0	214 (74.3)	225 (78.1)	7 (2.4)	0	232 (80.6)
Medium	31 (10.8)	8 (2.8)	0	39 (13.5)	20 (6.9)	14 (4.9)	4 (1.4)	38 (13.2)
High	13 (4.5)	8 (2.8)	7 (2.4)	28 (9.7)	3 (1.0)	2 (0.7)	10 (3.5)	15 (5.2)
Missing	7 (2.4)	0	0	7 (2.4)	3 (1.0)	0	0	3 (1.0)
Total	264 (91.7)	17 (5.9)	7 (2.4)	288 (100)	251 (87.2)	23 (8.0)	14 (4.9)	288 (100)

MUST score ranges from 0 to 6. Score of 0 = low risk; score of 1 = medium risk; score of ≥2 = high risk. Baseline MUST score was based solely on BMI.

Conclusion: In the SENSICIS trial, scores based on a modified MUST indicated that most patients treated with nintedanib were at low risk of malnutrition at baseline and remained at low risk over 52 weeks. The proportions of patients at high risk of malnutrition were low but were numerically greater in patients who received nintedanib than placebo. Management of disease manifestations and gastrointestinal adverse events that may be associated with weight loss is important to reduce the risk of malnutrition in patients with SSc-ILD treated with nintedanib.

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RISK FACTORS OF LOW BONE MINERAL DENSITY IN WOMEN WITH SYSTEMIC SCLEROSIS

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