P029. Assessing Sarcopenia and Presarcopenia in Axial Spondyloarthritis: Insights from a Large Spanish Cohort

Laura Berbel-Arcobé, Diego Benavent, Lidia Valencia-Muntalà, Carmen Gómez-Vaquero, Xavier Juanola, Joan M. Nolla
Servicio de Reumatología. Hospital Universitari de Bellvitge-IDIBELL. Universitat de Barcelona.

Introduction

Axial spondyloarthritis (axSpA) is a chronic inflammatory disease associated with functional impairment and reduced quality of life. Sarcopenia, characterized by loss of muscle mass, strength, and functionality, represents a potential comorbidity with significant clinical implications, including increased disability and mortality. Despite growing interest in sarcopenia within chronic inflammatory diseases, its prevalence and impact in axSpA remain poorly understood.
This study aimed to evaluate the prevalence of sarcopenia and presarcopenia, applying the EWGSOP-2 diagnostic criteria, in a large Spanish cohort of axSpA patients, and explore their associations with disease activity, functionality, and quality of life.

Methods

- Sarcopenia was assessed using the EWGSOP-2 criteria, which incorporates muscle strength (handgrip dynamometry), muscle mass (Skeletal Mass Index via DXA), and physical performance (gait speed).
- Presarcopenia was defined as low muscle mass without deficits in strength or performance.
- Sociodemographic, clinical, and disease-specific variables were collected, including disease activity, functionality, and health-related quality of life indices.
- Group comparisons were conducted for patients with and without sarcopenia or presarcopenia, and the diagnostic performance of the SARC-F screening tool was evaluated.

Results

- This cross-sectional study included 94 axSpA patients aged ≥50 years. The cohort had a mean age of 64.4 ± 9.1 years, with 73.4% being male.
- Sarcopenia prevalence was 3.2%, while presarcopenia was identified in 23.4% of patients.
- Patients with sarcopenia exhibited significantly poorer functionality (BASFI), lower quality of life (ASAS-HI) and higher SARC-F scores (table 1).
- Presarcopenia was associated with lower BMI and reduced use of biologic treatment (table 2).
- The SARC-F tool demonstrated high sensitivity (100%) and good specificity (75.8%) for sarcopenia detection when used alongside EWGSOP-2 criteria.

Conclusions

- This study highlights a low prevalence of sarcopenia but a substantial burden of presarcopenia among axSpA patients, highlighting the importance of early identification and intervention.
- Sarcopenia was associated with reduced functionality and quality of life. Systematic muscle health assessments could inform clinical decision-making and optimize patient outcomes in axSpA care.

Table 1. Characteristics of the patients and differences between the ones without and with sarcopenia

	All patients (n=94)	Without sarcopenia (n=91)	With sarcopenia (n=3)	p-value
Male	69 (73.4%)	68 (74.7%)	1 (33.3%)	ns
Mean age (years)	64.4 ± 9.1	64.8 ± 8.9	51.7 ± 1.2	<0.01
BMI (kg/m²)	28.1 ± 4.6	28.2 ± 4.6	25 ± 2	ns
Ever smokers	50 (53.2%)	49 (53.8%)	1 (33.3%)	ns
Regular exercise	22 (23.4%)	22 (24.2%)	0 (0.0%)	ns
Fragility fracture	6 (6.4%)	6 (6.6%)	0 (0.0%)	ns
Disease duration (months)	26.1 ± 13.8	25.8 ± 13.8	33.6 ± 12.5	ns
Articular symptoms				ns
• Peripheral arthritis	42 (44.7%)	41 (45.1%)	1 (33.3%)	
• Enthesitis	24 (25.5%)	22 (24.2%)	2 (66.7%)	
• Dactylitis	5 (5.3%)	5 (5.5%)	0 (0%)	
Extra-articular symptoms				ns
• Uveitis	28 (29.8%)	27 (29.7%)	1 (33.3%)	
• Psoriasis	11 (11.7%)	11 (12.1%)	0 (0%)	
• IBD	12 (12.8%)	12 (13.2%)	0 (0%)	
Current treatment				ns
• Glucocorticoids	6 (6.4%)	6 (6.6%)	0 (0%)	
• bDMARDs	51 (54.3%)	50 (54.9%)	1 (33.3%)	
Hemoglobin (g/L)	146 ± 16.7	146.6 ± 16.6	127.3 ± 5.5	0.01
CRP (mg/L)	3.5 ± 7.1	3.5 ± 7.2	3.8 ± 4	ns
BASDAI	3.5 ± 2.2	3.4 ± 2.2	4.9 ± 1.8	ns
ASDAS-CRP	2.1 ± 0.9	2.1 ± 0.9	2.7 ± 0.8	ns
BASFI	3.8 ± 2.6	3.6 ± 2.5	7.6 ± 1.2	0.02
ASAS-HI	5.8 ± 3.8	5.6 ± 3.7	11 ± 2	0.03
SF-12				
• Mental health	49.8 ± 11.3	49.8 ± 11.4	52.7 ± 2.1	ns
• Physical health	40.4 ± 10.8	40.9 ± 10.5	23.5 ± 4.5	0.01
SARC-F	2.3 ± 2.1	2.2 ± 2	6 ± 1	0.01

Table 2. Differences between patients without and with presarcopenia

	Without presarcopenia (n=72)	With presarcopenia (n=22)	p-value
Male	55 (76.4%)	14 (63.6%)	ns
Mean age (years)	63.8 ± 8.4	66.1 ± 11.1	ns
BMI (kg/m²)	29.1 ± 4.2	24.7 ± 4.1	<0.01
Ever smokers	37 (51.4%)	13 (59.1%)	ns
Regular exercise	19 (26.4%)	3 (13.6%)	ns
Fragility fracture	5 (6.9%)	1 (4.5%)	ns
Disease duration (months)	24.9 ± 13.9	29.8 ± 12.7	ns
Articular symptoms			ns
• Peripheral arthritis	31 (43.1%)	11 (50%)	
• Enthesitis	20 (27.8%)	4 (18.2%)	
• Dactylitis	3 (4.2%)	2 (9.1%)	
Extra-articular symptoms			ns
• Uveitis	19 (26.4%)	9 (40.9%)	
• Psoriasis	10 (13.9%)	1 (4.5%)	
• IBD	11 (15.3%)	1 (4.5%)	
Current treatment			
• Glucocorticoids	5 (6.9%)	1 (4.5%)	ns
• bDMARDs	44 (61.1%)	7 (31.8%)	0.03
Hemoglobin (g/L)	146.8 ± 17.4	143.3 ± 13.8	ns
CRP (mg/L)	3.8 ± 7.9	2.4 ± 2.5	ns
BASDAI	3.6 ± 2.2	3.3 ± 2.2	ns
ASDAS-CRP	2.1 ± 0.9	1.2 ± 0.9	ns
BASFI	3.8 ± 2.5	3.7 ± 2.8	ns
ASAS-HI	5.8 ± 3.8	5.7 ± 3.9	ns
SF-12			ns
• Mental health	50 ± 11.2	48.9 ± 11.7	
• Physical health	40.3 ± 10.1	40.7 ± 12.9	

N.º 029