

High Sarcopenia Risk Identified by SARC-F Is Prevalent and Strongly Predicts Poor Performance Status in Patients With Cancer: Findings From a Multidimensional Nutritional Vulnerability Cohort



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BACKGROUND

Sarcopenia is increasingly recognised as a determinant of functional decline and treatment tolerance in oncology, yet it remains underscreened in routine cancer care, particularly in low- and middle-income countries. We examined the prevalence of sarcopenia risk assessed by the SARC-F questionnaire and its independent association with performance status and functional outcomes in a diverse oncology cohort.



OBJECTIVE

To examine the prevalence of sarcopenia risk assessed by SARC-F and its independent association with performance status and functional outcomes.



METHODS

- Cross-sectional multidimensional nutritional assessment study
- 236 adult cancer patients
- All tumour types
- Tertiary oncology centre, Lahore, Pakistan
- SARC-F questionnaire
- High sarcopenia risk: SARC-F total score ≥ 4
- ECOG ≥ 2
- Feeding difficulty
- Self-rated health
- Haemoglobin
- Logistic regression
- Spearman correlation
- ROC analysis
- DeLong test



SARC-F DEFINITION

SARC-F SCORE ≥ 4



HIGH SARCOPIENIA RISK



CONCLUSION

- ✓ Sarcopenia risk assessed by SARC-F is highly prevalent across cancer types in this cohort and is the single strongest predictor of poor performance status, approaching the discriminatory performance of a full multidimensional composite score.
- ✓ Routine SARC-F screening at oncology first contact should be considered as a minimum standard, with multidimensional assessment reserved for patients who screen positive.
- ✓ These findings highlight a significant unmet screening need in oncology practice in Pakistan and comparable LMIC settings.



RESULTS



45.5%

HIGH SARCOPIENIA RISK

107 / 235 patients

SARC-F ≥ 4

High sarcopenia risk was identified in 107 patients (45.5%), representing nearly half the cohort.



COHORT PROFILE



235 patients with
SARC-F data



Median age: 48 years



Female: 55.9%



MEDIAN SARC-F SCORE

3.0 | IQR 1.0–6.0



MULTIDOMAIN VULNERABILITY

Prevalence of high sarcopenia risk

CNVB ≥ 2

Sarcopenia risk

88.8%

VS

CNVB 0–1

Sarcopenia risk

19.4%

p<0.001



ECOG / PERFORMANCE STATUS

ECOG ≥ 2 prevalence



Spearman rho=0.380 | p<0.001



REGRESSION

SARC-F

OR 1.75

per unit

p<0.001

SARC-F was the strongest single predictor of high multidomain vulnerability burden.



Adjusted for:
Age + sex + disease stage



STAGE



Stage distribution did not differ across CNVB categories

p=0.968

Findings were not attributable to differential disease burden.



ROC / DISCRIMINATION



SARC-F ALONE

AUC = 0.715

Poor performance status
ECOG ≥ 2



THREE-DOMAIN
CNVB COMPOSITE

AUC = 0.737

DeLong p=0.437

- SARC-F alone demonstrated good discrimination for poor performance status.
- The SARC-F AUC was not significantly different from the three-domain composite CNVB score.
- Composite retained superiority over nutritional and psychosocial domains individually (both p $\leq$ 0.006).



OTHER FUNCTIONAL ASSOCIATIONS



SARC-F $\uparrow$

→ Worse performance status



SARC-F $\uparrow$

→ Greater feeding difficulty



SARC-F $\uparrow$

→ Declining haemoglobin

Each unit increase in SARC-F was independently associated with worse performance status, feeding difficulty, and declining haemoglobin across logistic and non-parametric analyses.



CLINICAL IMPLICATION



SARC-F ≥ 4

**ROUTINE SCREENING AT ONCOLOGY
FIRST CONTACT**

Consider SARC-F screening as a minimum standard,
with multidimensional assessment reserved
for patients who screen positive.