# Cancer symptoms and nutritional status are inversely associated with health-related quality of life in patients awaiting liver resection

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## INTRODUCTION

- Determinants of health-related quality of life (HRQoL) in patients enrolled to surgical prehabilitation programs are not well understood
- AIM: To assess relationships between HRQoL and functional capacity, body composition, cancer symptoms and nutritional status

## METHODS

### Design/participants

- Baseline data from an ongoing prehabilitation study
- Adults with suspected hepatobiliary cancer awaiting liver resection

### Measures

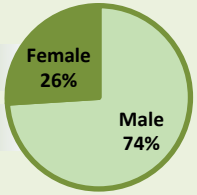
- Questionnaires:
  - Functional Assessment of Cancer Therapy-General (FACT-G): HRQoL
  - Revised Edmonton Symptom Assessment System (ESAS-r): cancer symptoms
  - Abridged Patient-Generated Subjective Global Assessment (aPG-SGA): nutritional status
- Functional capacity: Six-minute walk test (6MWT)
- Dual-energy X-ray absorptiometry: appendicular skeletal muscle mass index (ASMI)

## RESULTS

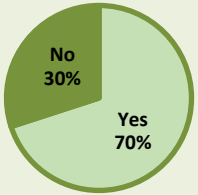
### Descriptive statistics

n=35

Age=63.6±11.9 y



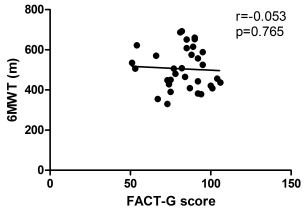

Sex

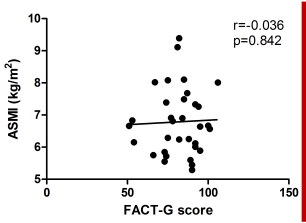


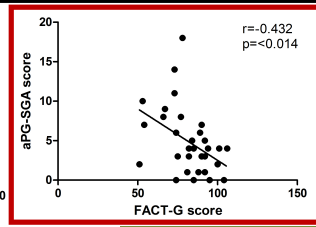

Chemotherapy

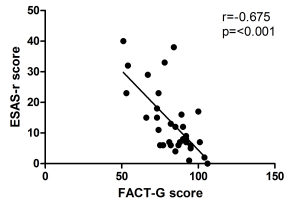
| | Mean (SD) | Significance |
|---|---|---|
| 6MWT (m) | 506.2 (100.8) | Above cutoff of 400 m[1] |
| ASMI (kg/m²) | 6.86 (1.09) | Low for males (7.26 kg/m²) |
| aPG-SGA (nutritional status) | 4.8 (4.3) | Score of 4-8: Intervention by dietitian and nurse/physician as indicated by symptoms[2] |
| ESAS-r (cancer symptoms) | 13.6 (10.6) | 0-90, lower score is better[3] |
| FACT-G (HRQoL) | 82.5 (13.8) | Mean > normative data for cancer patients (80.9), higher score is better[4] |

### Pearson correlations: relationships with HRQoL




### Simple linear regressions: predictors of FACT-G score

| Parameter | Estimate | Standard error | 95% CI Lower | 95% CI Upper | p | R² |
|---|---|---|---|---|---|---|
| 6MWT (m) | 0.005 | 0.02 | -0.04 | 0.05 | 0.856 | 0.001 |
| ASMI (kg/m²) | -0.29 | 2.37 | -4.92 | 4.35 | 0.903 | <0.001 |
| aPG-SGA | -1.47 | 0.54 | -2.51 | -0.42 | 0.006 | 0.19 |
| ESAS-r | -1.06 | 0.20 | -1.44 | -0.67 | <.001 | 0.32 |

## CONCLUSIONS

- HRQoL is negatively affected by cancer symptoms and poor nutritional status, but unaffected by functional measures and ASMI, in patients awaiting liver resection
- Prehabilitation programs should include a dietary intervention and supportive medical management of cancer symptoms

## REFERENCES

[1]Cruz-Jentoft et al., 2018; [2]Ottery, 2001; [3]Hui et al., 2017; [4]Brucker et al., 2005