

Introduction

Low physical functioning of patients with mitochondrial disease (MD) may be due to a diminished muscle mass. Improving body composition through a nutritional intervention might be a promising strategy. The aim of this study was to analyze body composition, nutritional intake and physical function and their interrelations in MD patients.

Methods – Nutritional Assessment

Food intake

- Dietary assessment
 - Protein intake (g/day)
 - Energy intake (kcal/day)



Body composition

- DXA measurement:
 - Fat free mass index (FFMI)
 - Fat percentage



Physical performance

- Function tests
 - Hand grip strength (HGS)
 - 6 min mastication (6MMT)
 - 30 sec sit-to-stand (30SCT)
 - 6 min walking (6MWT)



Conclusion

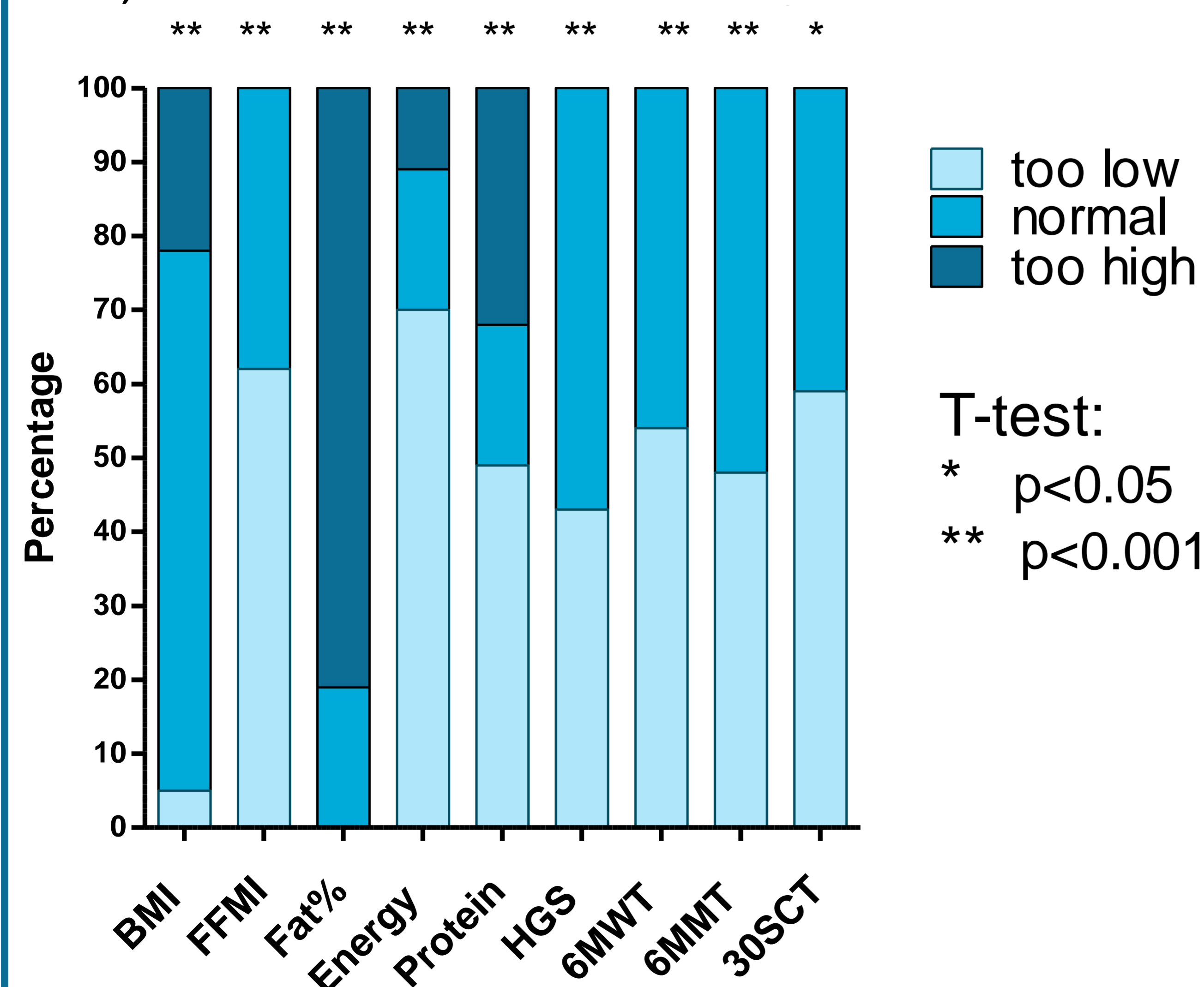
- MD patients have a higher risk of malnutrition.
- Individual dietary interventions are promising strategies for MD patients.



DYNAMO

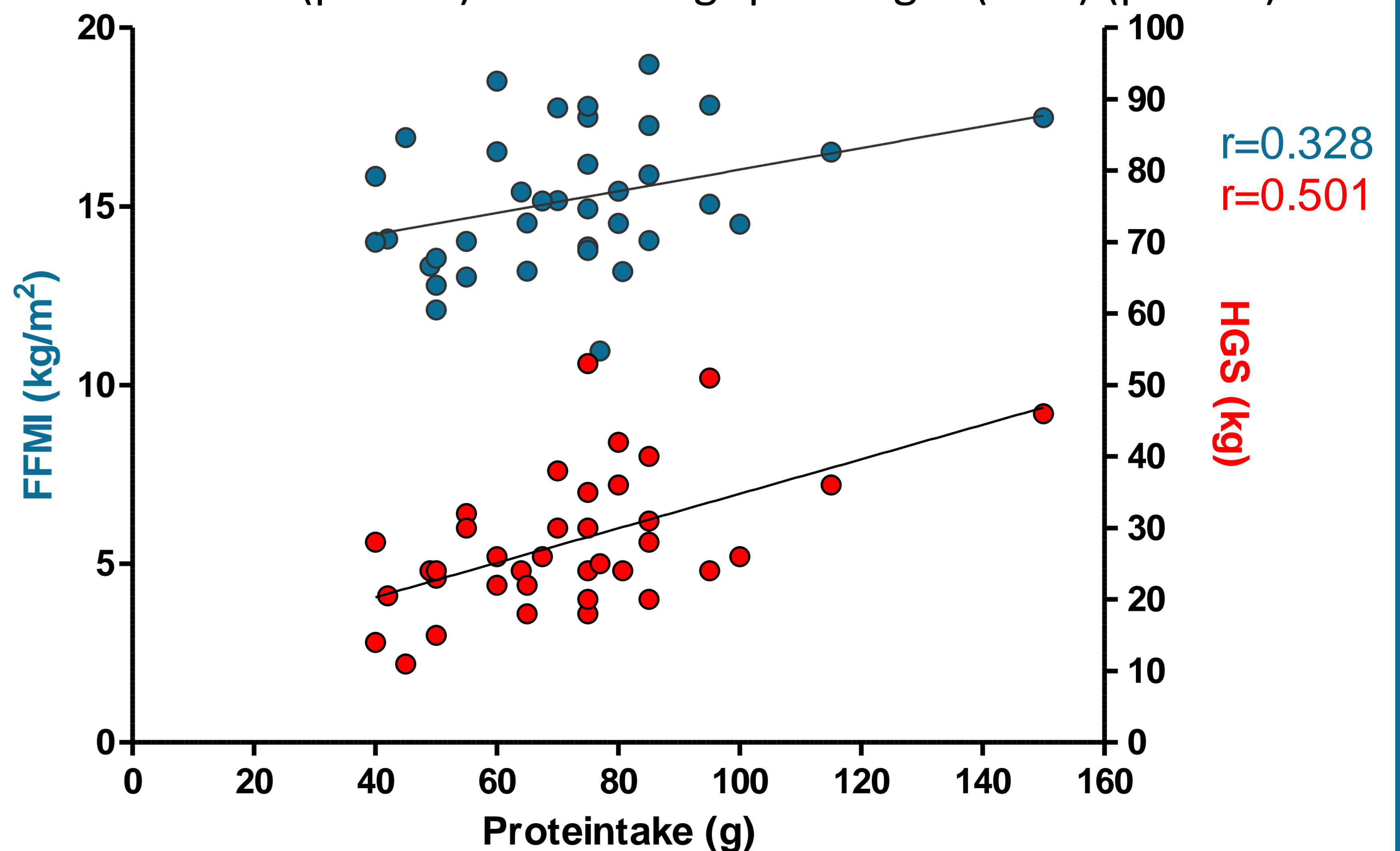
Results

37 genetically proven MD patients (42 years ± 13, 40% men, 78% m.3243A>G mutation).



Patients characteristics compared to references.

Significant correlations between protein intake and FFMI (p<0.05) and hand grip strength (HGS) (p<0.01).



Correlations between protein intake and FFMI and HGS