

Effects of sensoric testing as a part of the dietetic advice to patients with malignant lymphoma in cytostatic treatment

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Background

Patients with haematological cancer often experience severe nutritional problems, and it is well documented, that cytotoxic treatment markedly change their sensoric functions.

Purpose/Aim

To investigate if a simple, sensoric test as a supplement to the conventional dietetic guidance could improve the patients intake of protein and energy and state of health.

Methods

Randomized single blinded study with an intervention and control group with 9 patients in each group - 11 men and 7 women aged 48-87 years with malignant lymphoma (3 Hodgkin and 15 non-Hodgkin). 12 in stadium 3-4. Cytostatics were mainly: CHOP and R-BENDAMUSTIN. The test period was 4 weeks with endpoints being the difference from start to end end:

Fat-Free-Mass (bioimpedance), hand grip strength, dietary intake of protein and energy, quality of life (EORTC QLQ C-30) and discomfort in the mouth.

The intervention: Dietary counseling based on the results of the sensoric test and 3 questionnaires related to the sensoric tests. The control group received standard dietary counseling Telephone calls once a week consisting of 24-hour diet interviews and weighing.

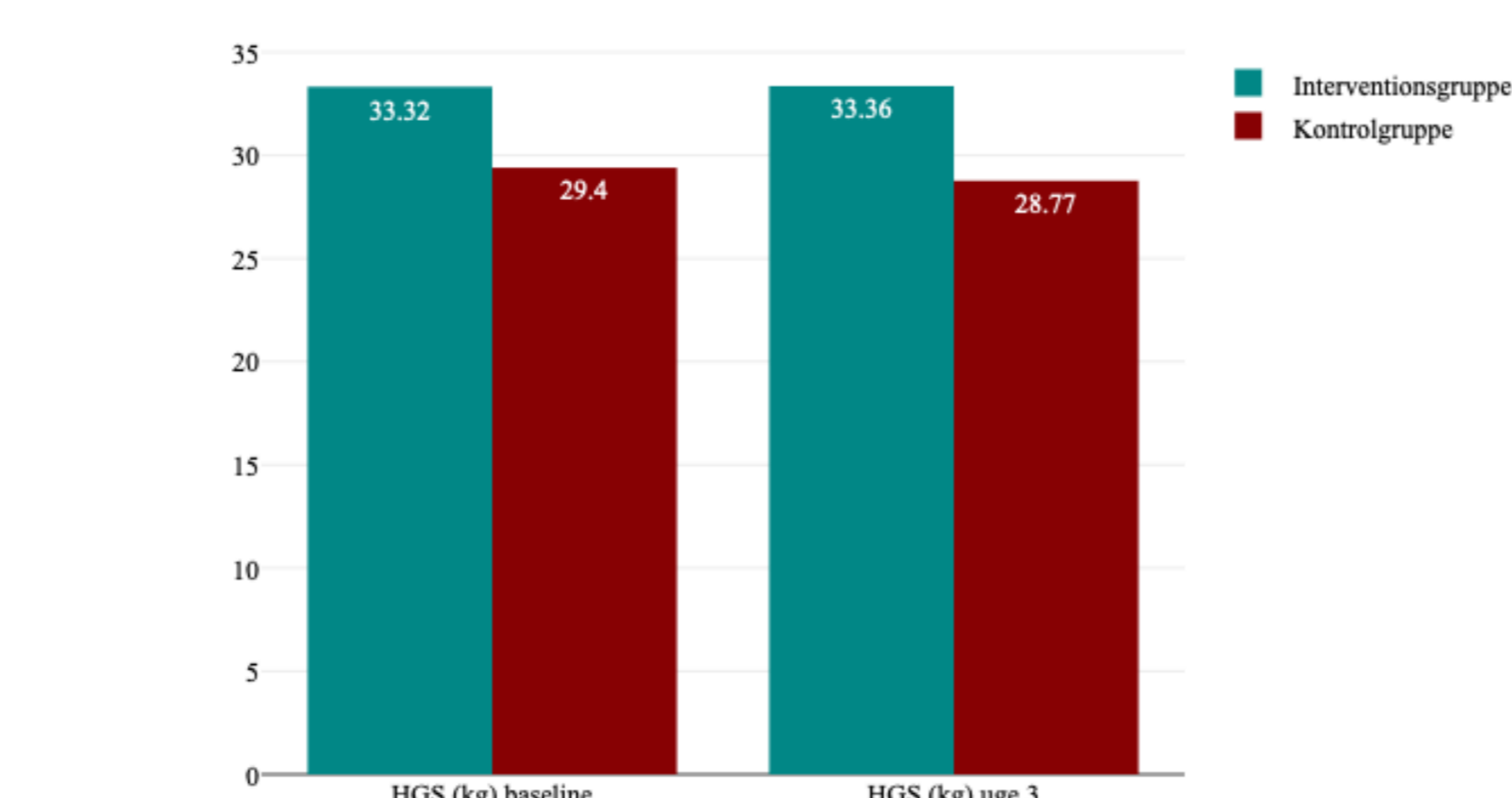
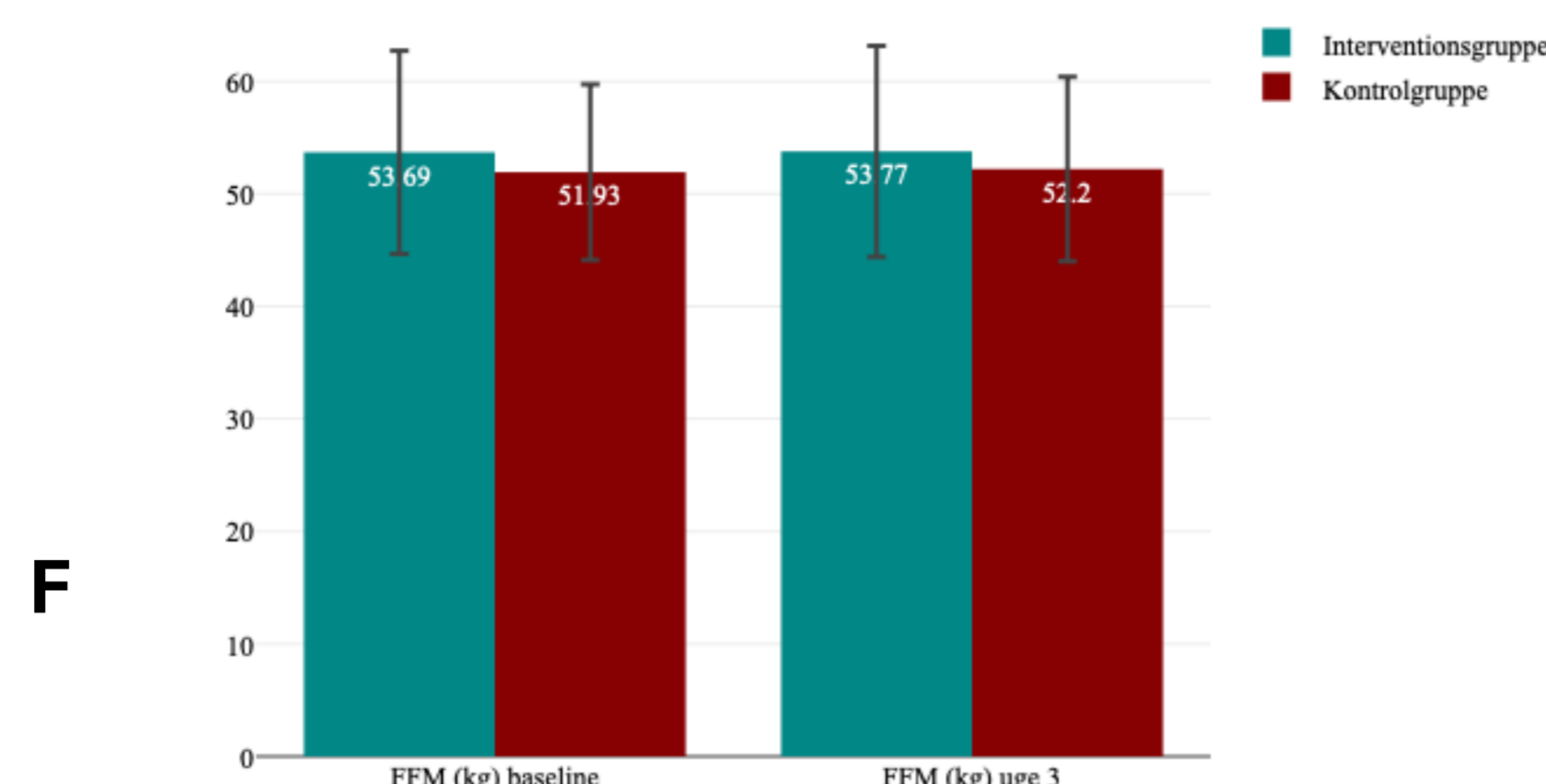
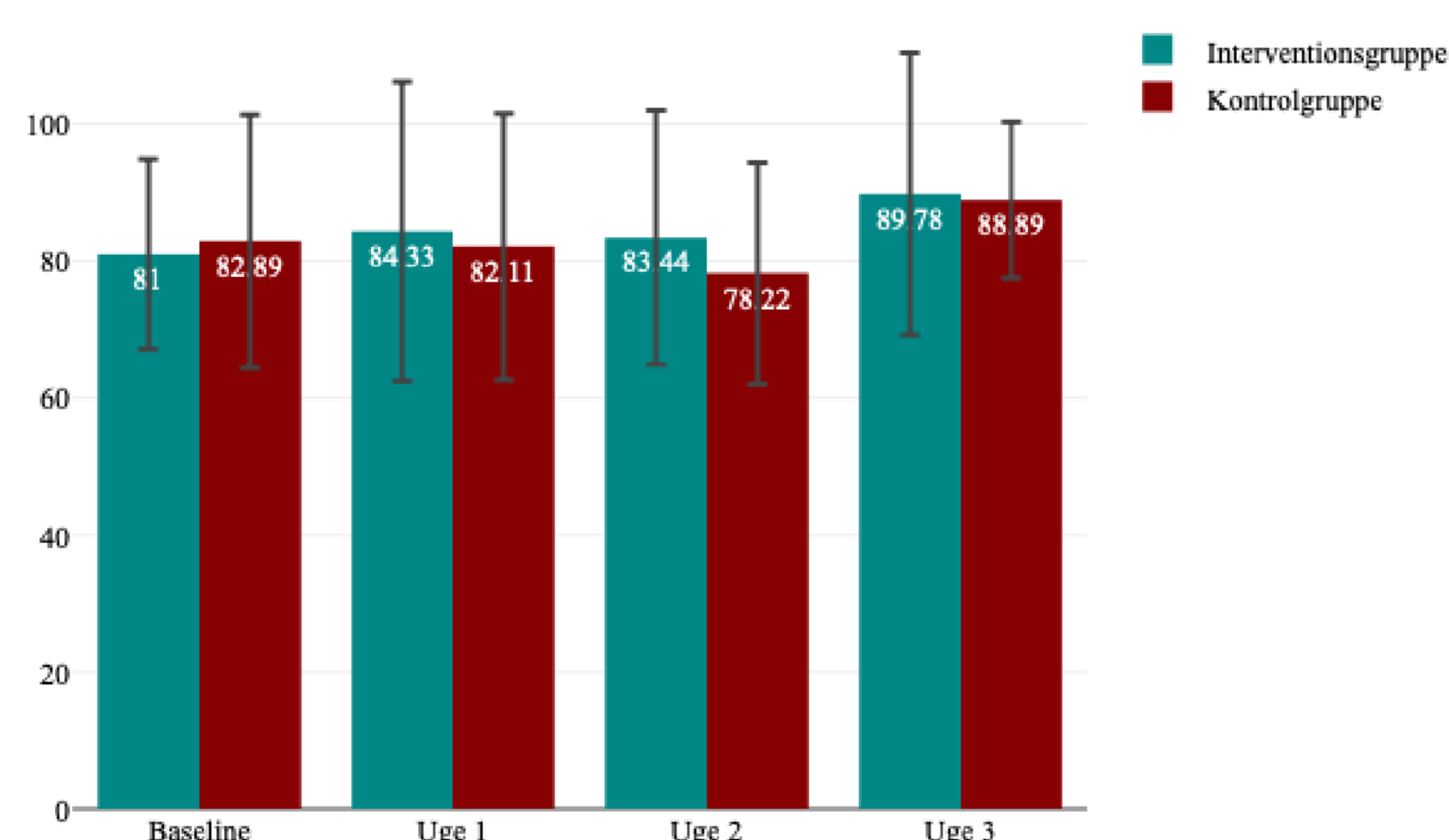
The sensoric testing consisted of:

10 tests – the 5 basic tastes in a low and a high concentration. Sweet, Sour, Bitter, Salt and Umami. The tastes were presented in mashed potatoes (tasteless) served in glasses of 2 cl. All the tests were coded with non-informative letters and numbers. The low concentration was always presented first. The patients gurgled water after every tasting.

Results

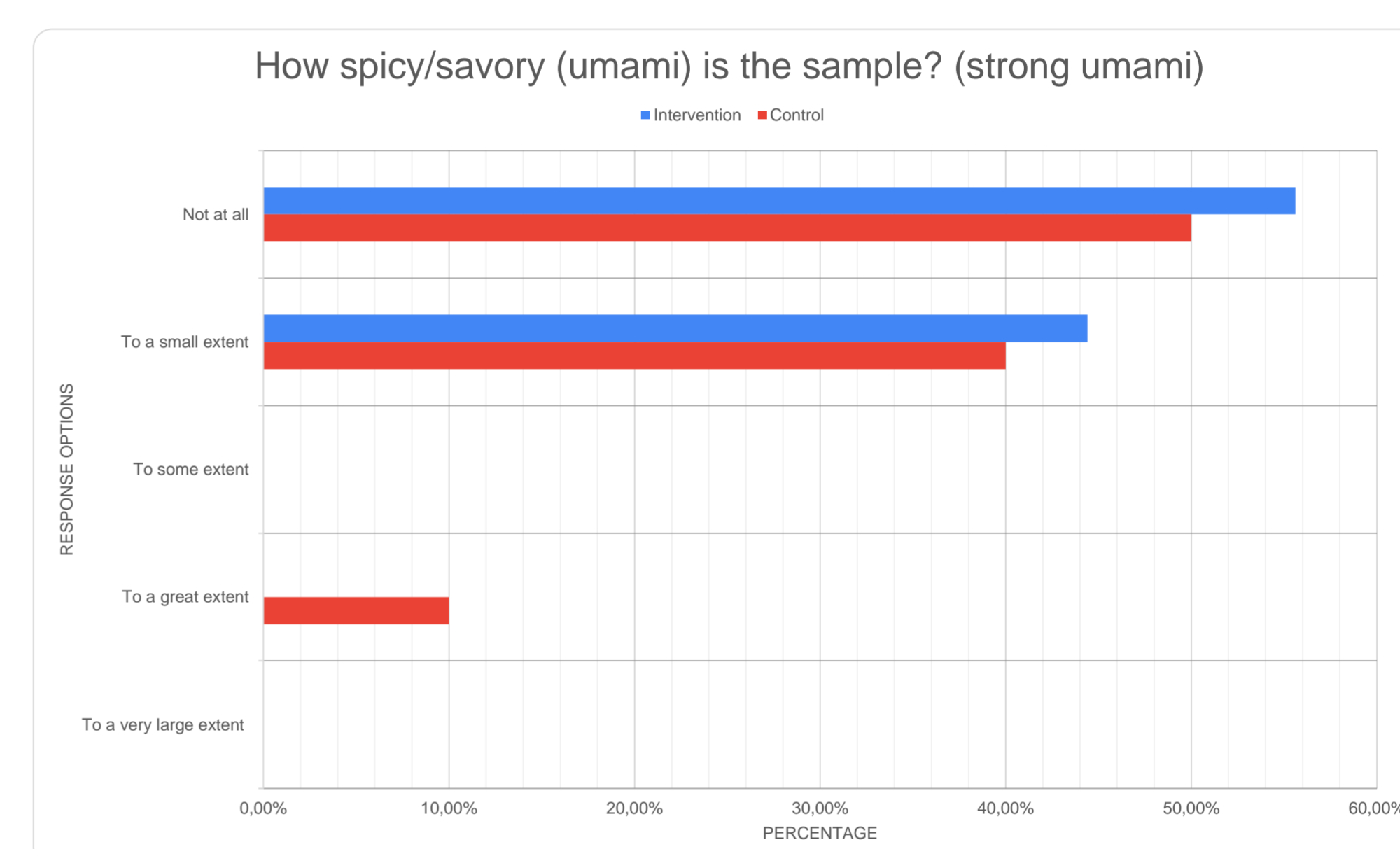
No significant differences between the groups in any of the end-points. The risk of a type-2-error is large, but major benefits with clinical relevance would have emerged in the investigation

Energy – intake in % of estimated needs

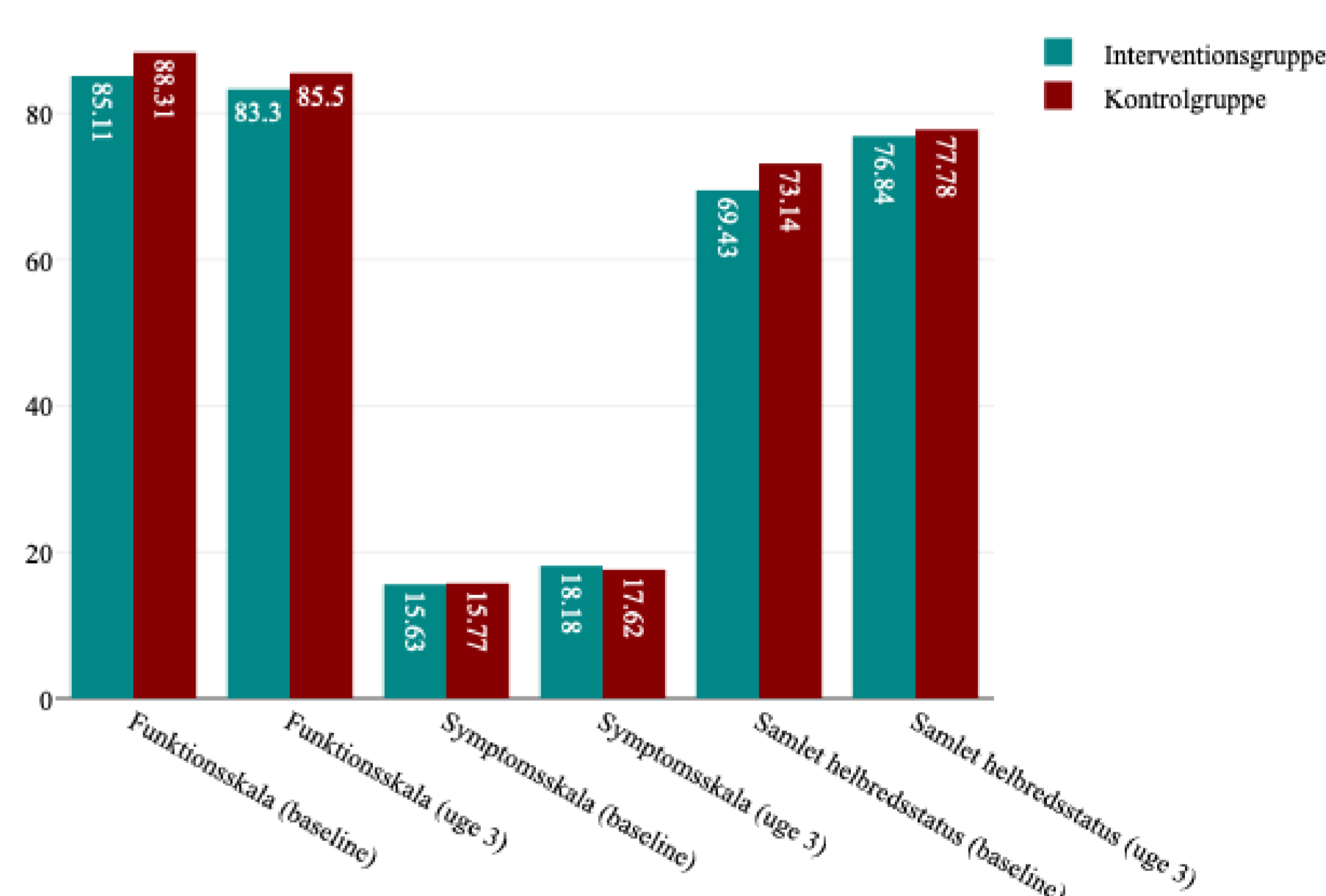


Conclusion

No major benefits for the patients if a sensoric test was added to the usual, individual dietetic guidance



Quality of life



TASTES:

Sweet – Sucrose – 25.7 g/kg and 51.4 g/kg
The high concentration comparable to coco-milk

Sour – Citric Acid - 0,6 g/kg and 1,7 g/kg
The high concentration comparable to lemonade

Salt – Sodium Chloride - 7,5 g/kg and 15 g/kg
The low concentration comparable to saltet tomato juice

Bitter – Quinine Hydro Chloride - 0,024 g/kg and 0,05 g/kg
The high concentraion was half as bitter as tonic water

Umami – mono-sodium-glutamate - 8,5 g/kg and 17 g/kg
The high concentration comparable to soy sauce or parmesan cheese