



## Letter to the Editor

## Reply to ‘Comment on “Muscle wasting and survival following pre-operative 3 chemoradiotherapy for locally advanced rectal carcinoma”’



We would like to thank Naar et al. for their interest in our study, which reported on the reduction of disease-free and distant metastases-free survival in rectal cancer patients experiencing loss of skeletal muscle mass during neo-adjuvant chemoradiotherapy prior to curative intent resection.

As they correctly point out, beyond the development of pharmaceutical agents to one day reverse skeletal muscle wasting in oncology patients, other confounding factors are of interest as well. The suggested confounding factors, although certainly interesting, unfortunately were not available for this study. However, the association between quality of life, depression and sarcopenia is an interesting one. This has also been described in a study by Nipp et al., who found sarcopenic patients to have a worsened quality of life and increased symptoms of depression [1]. Although Naar et al. suggest the reduction in quality of life to lead to a state of anorexia, giving cause to muscle wasting, it should also be considered that the presence of sarcopenia may cause decreased quality of life. Sarcopenia has been associated with an impairment in mobility, reduced physical activity, impaired self-care and usual activities as reported in sarcopenic elderly [2], which may lead to a reduction in the experienced quality of life.

With regard to the role of exercise and the immune system, a phase II trial has shown the feasibility of a multimodality intervention including nutritional supplementation, physical exercise,

and anti-inflammatory medication [3]. A phase III study to assess the effect on intervention, is currently underway [4].

### References

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- [3] Solheim TS, Laird BJA, Balstad TR, Stene GB, Bye A, Johns N, et al. A randomized phase ii feasibility trial of a multimodal intervention for the management of cachexia in lung and pancreatic cancer. *J Cachexia Sarcopenia Muscle* 2017;8(5):778–88.
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