



Nutrition outcomes for patients receiving radiotherapy to the head and neck

A retrospective cohort review

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INTRODUCTION

Patients with head and neck cancer (HNC) often struggle to meet nutrition and hydration requirements due to the cancer itself, and treatment-related toxicities. Previous research demonstrates HNC malnutrition rates as high as 74%, with patients likely to lose at least 10% of their body weight during treatment and gastrostomy patients likely to be dependent on tubes for greater than 6 months (Isenring et al 2013). We assessed nutrition outcomes in radiotherapy patients receiving standard nutrition care in the on-treatment and post-treatment settings.

METHODS

A retrospective cohort study was completed at a single tertiary facility between 1st April 2014 and the 31st of March 2016. Patients were included in the study if they had a confirmed cancer of the head and/or neck, received greater than 20 fractions of radiation therapy (+/- chemotherapy) and were adult (>18 years) patients.

The primary outcomes were change in body weight, nutrition status (Patient Generated Subjective Global Assessment) and gastrostomy dependence. Outcomes were assessed at the beginning of treatment, during treatment and for up to 6 months post treatment.

Review of electronic medical records for patients treated at the facility were reviewed by an independent researcher.

RESULTS

Data from 209 patients were analysed. On average patients lost 5.6kg (7.1%) at the end of treatment, 7.9kg (8.8%) one-month post-treatment and 8.9kg (10.4%) three months post-treatment. At baseline, 15% of patients were malnourished, compared to 56% at the end of treatment, 54% at one-month post-treatment and 30% three months post-treatment.

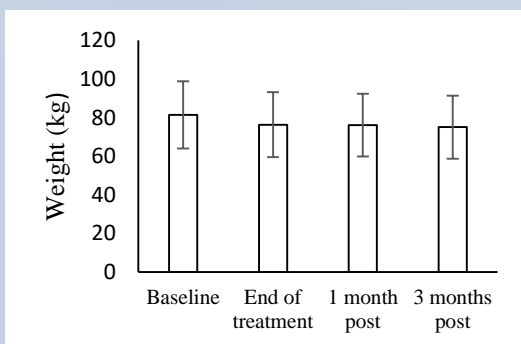


Figure 1: Average weight change for HNC patients from baseline to 3 months post treatment.

Table 1: Subjective Global Assessment (SGA) ratings of head and neck cancer patients from baseline to three-months post treatment.

Time point	Well-nourished (SGA-A) [N, (%)]	Malnourished (SGA B + C) [N, (%)]
Baseline (n=209)	177 (85)	32 (15)
End of Treatment (n=183)	80 (44)	103 (56)
One month post treatment (n=144)	66 (46)	79 (54)
Three months post treatment (n=124)	87 (70)	37 (30)

A total of 60 patients received a gastrostomy tube, with 97% (n=58) proactively placed. The average weight loss for gastrostomy tube patients at the end of treatment was 9% and 13% three months post-treatment. Patients had their gastrostomy tube in-situ for an average of 5 months.

CONCLUSIONS

Patients experienced moderately-high rates of malnutrition and clinically significant weight loss that continued at three months post-treatment. Close dietetic monitoring then remains necessary and warranted in this population, with significant weight loss known to impact quality of life, mortality and morbidity in this population.

Reference: Isenring, E., *Nutrition & Dietetics*, 2013. 70(4): p. 312-324.