The Clinical and Nutritional Implications of Pelvic Radiotherapy in Patients with Gynaecological Cancers: A Retrospective Observational Study

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Background/Aims:
The impact of radiotherapy treatment on nutritional status in patients with head and neck cancer or gastrointestinal cancer is well-known. However, there is scarcity of research on the nutritional implications in patients with gynaecological cancers with current nutrition guidelines not specific to this population.

This study aims to determine current dietetic practice for patients with gynaecological cancers receiving pelvic radiotherapy and to identify nutrition impact symptom (NIS) and nutrition outcomes during treatment and for 6 months post-treatment.

Methods:
All patients with gynaecological cancers receiving pelvic radiotherapy at a tertiary hospital (January 2017-December 2018) were included (n=104). Data were collected retrospectively from the Radiation Oncology treatment database (MOSIAQ) and electronic medical records. Key outcomes were clinically significant weight change (±5% body-weight change), NIS prevalence and model of nutrition care.

Results:
A third of patients (29.2%) deemed at nutritional risk (due to documented weight loss and poor appetite) were either not nutritionally screened or screened incorrectly during week 1 of treatment. Clinically significant weight loss during treatment was experienced by 19.2% of patients and occurred in 14.8% of patients 0-6 weeks post-treatment. No associations were found between weight change and cancer diagnosis, histology groups or treatment modality; however, patients in the 65+ year old age group were more likely to have lost more weight compared to the younger age group (25-44 years old). Diarrhoea (53%), fatigue (68%), nausea (48%) and pain (41%) were frequently reported throughout treatment. Overall, 40 patients were referred to a dietitian; of which 25 had a completed nutritional assessment and 14 of these (56%) were moderately/severely malnourished.

Conclusion:
These results demonstrate valid need for specialised dietetics services in this patient cohort due to prevalence of weight loss, NIS and malnutrition experienced during and post-treatment. Further research is required to determine optimal dietary interventions for this population.