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Overview of Intensive Individualized Medical Nutrition Therapy (MNT) for Nasopharynx Cancer (NPC) Patients in Queen Mary Hospital (QMH)

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Introduction

Weight loss is common in NPC patients undergoing Radiotherapy (RT), with previous studies showing mean reduction of 10% or greater weight loss in NPC patients post-RT. Severe weight loss is an important determinant for the occurrence of major complications. Although many factors can contribute to changes in body weight, MNT is thought to play a significant role in improving nutritional status of NPC patients treated with RT.

Objectives

The study sought to review the nutritional status of the intensive individualized MNT to maintain nutritional status in NPC patients. Further, to identify any risk factor related to significant reductions in nutritional status of these patients.

Methodology

A retrospective study was conducted using hospital medical record data of 50 Chinese NPC patients who received intensive individualized MNT at QMH from January to November 2017. Patients were offered MNT with a dietitian before, during, and post-RT. Additional follow-up was provided depending on individual patient needs. Data was collected at each MNT consultation: body weight, BMI, body composition, and dietary records. Independent t-test and ANOVA analysis were used to assess for significant changes to nutritional status from the baseline pre-RT treatment in comparison to post-RT nutritional status. NPC patients classified as underweight, normal, or overweight and obese according to their BMI at baseline (Pre-RT record).

Result

A decreasing trend was observed in both weight and BMI with p-value of 0.08 and 0.07 respectively. The mean weight loss was 7.4% (4.8kg) at post-RT. No significance was found during analysis of weight and muscle mass loss, BMI reduction, nor fat mass at post-RT compared to pre-RT nutritional status. However, significant negative weight change was found independently associated with overweight and obese

patients, compared to normal bodyweight ($P < 0.008$) and underweight NPC ($P < 0.02$) receiving RT.

This study has suggested that overweight and obese NPC patients experience more significant weight loss compared to normal or underweight patients. Hence, in order to prevent severe weight loss, these patients may require more tailored intervention and close monitoring. Despite this, the mean weight loss identified in this study was lower than the common average weight loss of previous studies. Nevertheless, further studies should be conducted in order to clarify this considering the relatively low sample size.