A Prospective Study of Prophylactic Gastrostomy in Head and Neck Cancer Patients Undergoing Chemoradiotherapy in Real-world Practice

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**Background:** Concurrent chemoradiotherapy (CRT) is the standard treatment for head and neck cancer patients. Most patients develop malnutrition and weight loss during treatment due to mucositis and difficulty swallowing. Prevention of malnutrition may allow more patients to achieve completion of such treatment. The purpose of the study was to examine if prophylactic gastrostomy could prevent malnutrition and significant weight loss with improved treatment continuity and quality of life.

**Method:** A prospective study was performed on head and neck cancer patients undergoing CRT at Siriraj Hospital between April 2013 and August 2014. Eighty-nine patients (19 in the experimental group and 70 in the control group) were eligible for analysis. Before starting the CRT, all patients were assessed and received nutritional counseling, including prophylactic gastrostomy. Patients were categorized into two groups, prophylactic gastrostomy (experimental group) or only nutritional guidance with a therapeutic feeding tube if required (control group). During the CRT, weight, degree of mucositis, delayed chemotherapy and/or radiotherapy, and subject global assessment (SGA) were recorded. The quality of life (FACT-H&N) was evaluated at the end of treatment.

**Results:** There was no significant difference in the rate of chemotherapy or radiotherapy delay. There was significant mean weight loss of 3.2kg and 4.8kg (p=0.01) in the experimental and control group, respectively. Seventeen patients in control group and none from experimental group exhibited more than 10% weight loss which was statistically significant (p=0.02). There was also a significant difference in the maximum SGA score in both experimental and control groups at 16.0 and 20.6, respectively (p=0.002). In terms of quality of life, no significant difference was found in the FACT-H&N score between the groups.

**Conclusion:** Study results suggest that prophylactic gastrostomy did not provide reduced treatment interruption. A decreased degree of weight loss and maximum SGA score with similar quality of life was noted.