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## The Carbohydrate/Protein ratio in daily intakes as outcome indicator in post-operative patients with oesophageal cancer

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**Background:** It was suggested that the average fluid balance during the 7 days after oesophageal cancer surgery may be a predictor of outcomes. Although we did not mention the relevance of nutritional intake and outcome after surgery, many reports state that perioperative nutrition influence outcomes. It has been known that oesophageal cancer resection is a highly invasive surgical procedure and causes prognostic malnutrition. However, the specific nutrition management method, after surgery, is not indicated in the guidelines.

**Aim:** In this study, we hope to clarify the relationship between nutritional intake and clinical outcome of cases entering ICU post oesophageal cancer resection operation.

**Methodology:** We conducted a quantitative retrospective chart review and analysis of patients hospitalized for the purpose of therapy oesophageal cancer in a single facility between 1st January and 31st December 2014. The patients who had day spent less than 2 days in the ICU, did not radical surgery and missing data were excluded. We calculated the daily average energy, protein, lipid, intake and Carbohydrate/Protein ratios during their stay in the ICU. We divided the subjects into two groups: high intake and low intake. We used a median score as the cutoff point. We conducted four investigations for each nutritional element:

- (1) daily average energy intake  $\geq$  vs.  $<$  14.30 kcal/kg/day,
- (2) daily average protein intake  $\geq$  vs.  $<$  0.48 g/kg/day,
- (3) daily average lipid intake  $\geq$  vs.  $<$  0.07 g/kg/day,
- (4) Carbohydrate/Protein ratios  $\geq$  vs.  $<$  6.01.

**Result:**

- (1), (3) There was no significant difference in the length of stay in the ICU (days).
- (2) The group with a daily average of protein intake of  $<$  0.48 g/kg/day showed significantly shorter length of stay in the ICU (days) than that in another group (4 (3, 5) vs. 5 (4, 6),  $p=0.009$ ).
- (4) The group with Carbohydrate/Protein ratios of  $\geq$  6.01 showed significantly shorter length of stay in the ICU (days) than that in another group (4 (3, 5) vs. 5 (4, 6),  $p=0.037$ ).

**Conclusion:** The daily average energy and lipid intake may not be suitable variables as predictors of outcome for post oesophageal cancer resection. It can be suggested that lower protein intake and higher Carbohydrate/Protein ratio seem to be associated with better prognosis in post-operative patients with oesophageal cancer.

**Biography**

Mari Hasegawa has completed her Graduation from Mukogawa Women's University and now working in the same university.

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**Notes:**