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Nutrition status, malnutrition screening and outcomes of surgical colorectal cancer patient
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Introduction
Malnutrition in surgical patients is known to be one of the major risk factors for postoperative complication, increased length of stay (LOS) and mortality. Nutrition screening is the first step in identifying patient at risk of malnutrition for timely pre-operative nutrition support.

Objectives
1.To investigate the prevalence of malnutrition in surgical colorectal patient planned for elective surgery. 2.To examine the correlation of nutrition status and LOS and mortality in surgical colorectal patient.

Methodology
A pre-operative malnutrition screening was implemented in 2011 in our Fast Track Colorectal Surgery Program. Patients were screened using a locally validated screening tool, Chinese Malnutrition Universal Screening Tool preoperatively. Malnutrition risk was categorized by a score of 0, 1 and ≥2 for low, moderate and high risk respectively. Outcome measures included percentage of patient at risk of malnutrition, body weight(BW), body mass index(BMI), total LOS, complication rate and hospital mortality. Categorical data was analyzed by using chi-square test and continuous data was analyzed by student t-test with SPSS version 11. The significant level was set at $p<0.05$.

Result
Totally 370 patients were screened during the period of Jan 2011 to Oct 2012. The mean BW and BMI were 49.6kg and 23.1, 56.5kg and 22.1, and 61.2kg and 23.9 for patient at high, moderate and low risk of malnutrition. Overall, 15% (N=55) and 13% (N=47) of patient were found to be of moderate and high risk of malnutrition. The LOS of patients at high, moderate and low risk of malnutrition was 14.9, 9.5 and 9.8 days (p-value 0.001). The complication rate of patient at high, moderate and low risk was 16.8%(N=45), 12.7%(N=7) and 34%(N=16) (p-value=0.017). There was no significant different in hospital mortality among the three groups of patient. Nutrition support was provided to 44 high-risk patients (94%) by Dietitian. Conclusion: Thirteen percent of colorectal surgical patient was identified to be at high risk of malnutrition.

Pre-operative nutrition screening is able to capture these patients for early pre-op nutrition support.