Dietary counseling outcomes in locally advanced unresectable or metastatic cancer patients undergoing chemotherapy

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Background: Cancer-related malnutrition led to poor outcomes of treatment, decreased quality of life, decreased functional status and delay treatment. This study examined the effects of dietary counseling for regular foods consumption on nutritional outcomes in patients with cancer undergoing chemotherapy.

Method: A prospective randomized study was performed on locally advanced unresectable or metastatic cancer patients undergoing chemotherapy at Maharaj Nakorn Chiang Mai hospital. Between December 2013 and July 2014. A total of 50 patients were randomly assigned to dietary counseling group and routine care group. The dietary counseling group was performed by the dietitian before start chemotherapy and outcomes were evaluated at the end of 3-4 cycles and 6-8 cycles of chemotherapy or next 2 months if stopped chemotherapy earlier.

Results: The dietary counseling group significantly increased percent change of body weight increase 2.29(±6.20) vs decrease -1.70(±6.23) percent, \( p=0.03 \) and BMI increase 2.27(±6.09) vs decrease -1.53(±5.92) percent, \( p=0.03 \) at the end of 3-4 cycles of chemotherapy but no significant change at next 2 months. Furthermore, PG-SGA score(6.67(±1.99)vs 10.04(±3.73), \( p<0.001 \)and quality of life score (39.40(±10.61)vs 46.16(±7.55), \( p=0.01 \) was significant increase in dietary counseling group at the end of 3-4 cycles of chemotherapy and next 2 months. Absolute lymphocyte count, serum albumin, energy intake, number of patients who delayed chemotherapy, cause of delay chemotherapy and number of total cycles did not differ between the groups.

Conclusion: Dietary counseling have significantly improved body weight, BMI, PG-SGA scores and quality of life scores in patients with locally advanced unresectable or metastatic cancer undergoing chemotherapy compare with routine care. We should concern about screening for malnutrition status in all patients and have early nutritional therapy.