FACTORS CONTRIBUTING TO MALNUTRITION IN PATIENTS WITH GYNECOLOGIC CANCER

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Significance and Background

40-80% of cancer patients had nutritional disorder. Malnutrition in cancer may lead to infection, electrolyte imbalance, altered skin integrity, anemia, anorexia, fatigue, and immune deficiency. In addition, changes in protein metabolism may provoke loss of appetite and body weight as well as cachexia. As a result, malnutrition results in poor clinical outcomes, such as prolonged length of hospital stay and high mortality in cancer patients. Therefore, Patients with gynecological cancer who is recognized as a major health problem, but the incidence of malnutrition and related factors about the results are reported to be varied. Malnutrition appears differently depending on the treatment period, psychological factors such as depression affect malnutrition.

Purpose

The purpose of this study was to evaluate the nutritional status and to identify clinical, psychosocial, and nutritional factors contributing to malnutrition in Korean gynecologic cancer patients.

Method

The study was a descriptive, cross-sectional design. There were 129 gynecologic cancer patients in Ulsan in Korea between June and October 2013. The subjects were recruited from a tertiary hospital in Ulsan, Korea. Convenience sampling was used to select the subjects. The eligibility criteria included: (i) age over 20 years; (ii) diagnosis of gynecologic cancer; (iii) absence of any other major health problem that could potentially influence the nutritional status such as uncontrolled diabetes mellitus, infection and inflammation, liver failure, renal failure, and so on.

These patients completed a PG-SGA (Patient-Generated Subjective Global Assessment), SNAQ (Simplified Nutritional Appetite Questionnaire), BDI (Beck Depression Inventory).

Results

The mean BMI was 23.4 kg/m^2 (range 14.6–36.7 kg/m^2) and median body weight was 55.0 kg (range, 38.5-91.3 kg). Sixty-nine (53.5%) of 129 patients were classified severe malnutrition according to the PG-SGA. Malnutrition among patients who had received chemotherapy was more frequent than among patients who had not received chemotherapy. Depression and appetite were significant factors predicting malnutrition in patients with gynecologic cancer. However, the malnutrition was not related to age, marital status, level of education, or annual income among demographic factors, and it was not related to age at onset of cancer, cancer type, stage, or the duration of cancer among clinical factors.

Table 1. Comparison of clinical, psychological, and nutritional characteristics between the patients with malnutrition and the patients with non-malnutrition (N=129)

Variables	Malnutrition (n=69) n(%) or M±SD	Non-malnutrition (n=60) n(%) or M±SD	t or z or χ^2	p
Age at onset	50.8±13.0	50.5±10.9	-.176	.861
Cancer type				
cervix	23 (47.9)	25 (52.1)	3.643	.303
ovary	28 (52.8)	25 (47.2)		
endometrium	15 (60.0)	10 (40.0)		
other	3 (100.0)	0 (0.0)		
Length of time after diagnosis (months)	21.4±27.0	25.6±35.5	.582	.562
BDI	13.3±7.4	8.7±5.6	-3.893	<.001
Body weight (kg)	55.5±9.4	58.3±9.0	1.811	.070
Body weight at disease onset (kg)	57.6±9.4	58.3±8.7	.461	.645
BMI (kg/m2)	23.0±3.8	24.0±3.8	1.534	.128
SNAQ	12.5±2.7	14.3±2.0	4.137	<.001
PG-SGA	13.4±4.2	8.7±5.6	-9.864	<.001

Table 2. Predictors of malnutrition in patients with gynecologic cancer (N=129)

Variables	B	Odd ratios	95% CI	*p*
BDI	-.289	1.111	1.047-1.179	.001
SNAQ	0.083	0.714	0.600-0.850	<.001

Conclusion

Nurses can improve nutritional status of gynecologic cancer patients through reformation of depression, appetite. This allows the subject's quality of life may be improved