Investigation on Nutritional Status and Quality of Life in Different Sexes

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Background: Malnutrition is the most common complication of lung cancer patients. The purpose of this study was to investigate the nutritional indicators and quality of life of patients with locally advanced non-small cell lung cancer (NSCLC) who received definitive radiotherapy, to compare the nutritional status and quality of life of male and female patients, and to explore the relationship between them. Method: Patients with locally advanced NSCLC who received definitive radiotherapy in our hospital were enrolled. The quality of life of patients was assessed by the Cancer Therapeutic Function Scale. Height, weight and body composition were collected by Inbody 230. Nutritional indicators such as albumin and hemoglobin were recorded within a week. Result: Between January 2018 and March 2018, ninety-six male patients and 32 female patients were enrolled. The BMI of 7.3% of male patients was lower than 18.5 kg/m², and that of all female patients was more than 18.5 kg/m². The proportion of male patients with hypoalbuminemia was equal to that of female patients, accounting for 65.6% of the total number. 6.3% of male patients with hypoalbuminemia and BMI were lower than 18.5 kg/m² at the same time. The proportion of male patients with anemia was higher than that of female patients ($x^2 = 7.626, P = 0.006$), and the skeletal muscle and water content were higher than those of female patients ($T = 5.653, P = 0.000; T = 8.184, P = 0.000$). Body mass index, fat content, skeletal muscle content and water content in male patients were positively correlated with quality of life ($\beta = 0.225, P = 0.046; \beta = 0.232, P = 0.042; \beta = 0.291, P = 0.009; \beta = 0.328, P = 0.004$), while there was no significant correlation between nutritional indicators and quality of life score in female patients. Conclusion: Malnutrition is the main type of malnutrition in lung cancer patients, the manifestation is that body weight is maintained in normal range or even overweight, but serum albumin, lymphocyte count and other indicators are abnormal. However, some male patients are suffer from mixed malnutrition, the consumption of weight and decrease of serum nutritional indicators both occurred, which is a serious life-threatening malnutrition. So, male patients with lung cancer are more likely to suffer from serious malnutrition than female patients, and malnutrition has a greater impact on the quality of life of male patients. Keywords: Lung cancer, Nutrition, Quality of life