

AB020. S3B-6. Nutrition care in patients with cancer

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Abstract: Patients with cancer are at particularly high risk for malnutrition because both the disease and its treatments threaten their nutritional status. Malnutrition, anorexia, and cachexia are a common finding in patients with cancer. They become more evident with tumor growth and spread. These mechanisms can involve primary tumor or damage by specific treatment such as anticancer therapies (surgery, chemotherapy, radiotherapy) also in cancers that usually are not directly responsible for nutritional and metabolic status alterations. Cancer cachexia is defined as a multifactorial syndrome characterized by an ongoing loss of skeletal muscle mass that cannot be fully reversed by the conventional nutritional support and leads to progressive functional impairment. It is common among patients with cancer who often experience marked unintentional weight loss, sarcopenia, anemia, anorexia, and fatigue. The pathophysiology is characterized by a negative protein and energy balance driven by a variable combination of reduced food intake and abnormal metabolism. The metabolic changes seen are distinctly different from starvation, reduced caloric intake, or from tumor burden alone. Patients with upper gastrointestinal, head and neck, and lung cancer are among the most severely affected by

cancer cachexia. Cancer cachexia has detrimental effects on quality of life (QOL), performance status, and physical function. Cachexia is defined as >5% involuntary weight loss over the preceding 6 months or a body mass index (BMI) <20 kg/m² and ongoing weight loss >2% or signs of sarcopenia and ongoing weight loss >2%. Sarcopenia has been defined by a variety of assessment tools, including mid-arm muscle area or circumference, appendicular skeletal muscle index determined by dual-energy X-ray absorptiometry, lumbar skeletal muscle index determined by oncological computerized tomography, or whole-body fat-free mass index without bone determined by bioelectrical impedance. The use of optimized nutrition intervention programs such as dietitian consults, periodic monitoring, appropriate nutrition supplements, and feeding tube placements as needed throughout the treatment period markedly improves treatment tolerance and outcomes in head and neck cancer patients. The procedures of nutritional interventions were included in climbing order as followings: dietary adaptations or changes, oral supplements, enteral feeding through a feeding tube and parenteral nutrition. Recently, nutrient support, such as omega-3 rich food components, has attracted attention as a potential anti-tumor immunonutrition therapy. As cancer cachexia is a multifactorial process, the treatment approach should be multi-targeted. Further large prospective studies are needed to investigate whether immune enhanced oral nutritional supplements, enriched by a variety of micronutrients, are a beneficial intervention for the metabolic disturbances induced by cachexia.

Keywords: Nutrition; cancer; cachexia; weight loss; inflammation

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