Exercise and Nutritional Intervention in the Acute Phase of Cardiac/Intensive Care in Patients with Advanced Heart Failure

Advanced heart failure (HF) patients often exhibit reduced skeletal muscle mass, muscular strength and physical function in the long struggle, so called sarcopenia, in addition to a deterioration in cardiac function. In hospitalized HF patients, a prolonged bed rest cause a physical harm called deconditioning. In some severe cases, it comes to cardiac/intensive care unit (CCU/ICU)-acquired weakness. Therefore, the optimal management aiming for early ambulation and early discharge is required. In our institute, the advanced HF team including a physical therapist dedicated in CCU/ICU and a nutritionist with specialized expertise in HF are actively involved in both nutrition and exercise at the early period in CCU/ICU. We usually introduce physical therapy and low-intensity resistance training on a bed to hospitalized HF patients in order to prevent a deconditioning and to secure the future activity of daily living, except for contraindication cases. Some patients experience electrical muscle stimulation therapy to prevent skeletal muscle atrophy. When the hemodynamic status is stable, an exercise with a combination of resistance training for aerobic exercise is prescribed even if the inotrope-dependent status. As for the nutrition, the enteral nutrition support is recommended to initiate as soon as possible within 24 hours or 48 hours at the latest after the initiation of treatment. While paying attention to raising non-occlusive mesenteric ischemia, the initial amount of energy should be carefully considered. In this
presentation, we would like to discuss the comprehensive management of the acute phase in CCU/ICU from the aspects of nutrition and exercise.

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