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Efficacy of Controlled Chest Expansion Exercise on Autonomic Function in Heart Failure Patients

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Abstract : Autonomic dysfunction of the heart can increase the incidence of the cardio vascular mortality in heart failure patients, heart rate variability analysis consider an important method to assess cardiac autonomic dysfunction and also used to assess the left ventricular morphology and function. The purpose of this study was to investigate whether the diaphragmatic training could induce change on heart rate variability in with heart failure. Thirty patients, with heart failure, were assigned to two groups equal in number. Group (1) study group including 15 patients participated in a supervised diaphragmatic training program for 8 weeks with usual care. Group (2) control group including 15 patients undergo usual care. Main outcome parameters were HRV parameters. Evaluations were carried out pre and post experimentally using EGG. Results showed that the parasympathetically modulated HRV of the patients in the exercise group increased significantly compared with the HRV of patients in the control group. It had been concluded that diaphragmatic training could increase autonomic modulation of cardiac function in patients with heart failure. It is also suggested that analysis of HRV can be earned out to assess the effect of diaphragmatic training on cardiac autonomic dysfunction in patients with heart failure.

Keywords : Controlled chest expansion, Autonomic function, Heart Failure.

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