

Elektromyostimulation: improving life quality, oxygen absorption and left ventricular functions concerning chronic heart failure

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Objective

A regular physical activity has been proved as a therapy option for patients with heart failure (HF). Besides the dynamic training, the EMS of the skeletal muscles has shown positive effects on the capacity of HF-patients. The EMS-therapy has been conducted with a system, which would either stimulate 8 big muscle areas simultaneously and electrical (exEMS), or just the buttock- and thigh muscles (limEMS).

Method

Stable patients with chronic heart failure were recruited for the EMS-Training-program. The training was realized during a time period of 10 weeks, 2 times a week for 20 minutes. 18 patients (10 male, middle age) received limEMS-Training. The quality of life was determined by the SF-36-survey before and after the EMS-therapy. The impact on the exercise tolerance (oxygen absorption during the spiroergometry), the left ventricular function and the quality of life were evaluated.

Results

The quality of life for the exEMS-group at the fields physical and emotional viability raised significantly. The limEMS-group showed a significant improvement for the field vitality. The oxygen absorption at the anaerobic threshold had also a significant improvement. Furthermore, there was an increase of ejection fraction in both groups.

Conclusion

EMS-Training initiates an increase of oxygen absorption, ejection fraction and a better quality of life. The given concept can be a useful alternate training method for chronic heart failure patients, who can't do common training.

We are convinced, that with the usage of the VISIONBODY-System's we will reach improved results and goals.

VISIONBODY's cable less suits enable it to include numerous exercises of the Functional Training and therefore to improve the motion sequences, to increase the fun factor and to raise the results positively.

At the same time the tendons and joints will mostly be spared.