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Review of Chinese Expert's Consensus on Exercise Rehabilitation for Stable Chronic Heart Failure

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Abstract

Exercise rehabilitation for chronic heart failure (CHF) has been strongly recommended by international guidelines for its beneficial effects. As the CHF exercise rehabilitation in the initial stage of development in China, this paper shows the mini review of Chinese expert's consensus and puts forward constructive suggestions to exercise rehabilitation modality.

Keywords: Heart failure; Cardiac rehabilitation; Exercise

Mini Review

Exercise rehabilitation for stable CHF is supported by a multitude of evidences and has been recommended in ESC, AHA/ACC guidelines (evidence: IA) [1,2], while the development is still in the beginning and the research results are limited in China.

In order to get the CHF exercise rehabilitation improved, the Chinese committee for medical rehabilitation and cardiovascular disease together with the cardiovascular and cerebrovascular committee of the gerontological society of China jointly published the first Chinese expert's consensus on exercise rehabilitation in stable CHF (hereinafter referred to as "Consensus" in September 2014 under initiative by Professor Hu Dayi [3]. Combining the practical circumstances in China with international CHF exercise rehabilitation guidelines, and based on thoughtful consideration and safety assessment, the consensus provides details to help doctors evaluate CHF patients, make exercise prescriptions, judge effectiveness and implement exercise program.

The consensus suggests the evaluation of aerobic exercise capacity can first be applied in tertiary hospitals then expand into secondary hospitals and community healthcare when the evaluation become more reliable. CPET can be adopted in tertiary hospitals, also 6MWD instead when conditions are limited. Most importance should be attached to the aerobic exercise whilst resistance, flexibility and balance exercises are considered to be supplementary. Different kinds of Traditional Chinese Medicine exercises such as Taiji or Baduanjin can also be incorporated.

Based on the current research evidence in China, the Consensus suggests between 40% and 70% HRR a submaximal intensity of anaerobic threshold (AT), this can also be calculated according to 6MW {suggested use: (80%*6MWD*10) km/h} even Borg RPE 10-14. As for the implementation of an exercise program, the consensus suggests moderate continuous aerobic exercise. High risk CHF patients can be monitored in the hospitals and transferred into a family exercise program once the patients' condition has improved. Low risk CHF patients can develop a home-based exercise program in outpatient or cardiac rehabilitation club. As to CHF patients after acute decompensation, there is no recommendation in the Consensus in that researches and evidences are limited, though study reported that exercise training can improve cardiac performance indexes and pulmonary function in both middle-aged and elderly HF patients [4].

Last but not the least, some proposal has been advised in the Consensus towards the current problems existed in CHF rehabilitation of China, the necessity of hardware and software development are emphasized as well. At the same time, references and suggestions can be provided for CHF patients. The Consensus will be updated continuously with more extensive researches, which will become the foundation of a Chinese guideline for exercise rehabilitation in stable CHF.

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