

Medical Rehabilitation in Adults with Congenital Heart Disease (ACHD)

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Introduction:

The number of adults with congenital heart disease (ACHD) is steadily rising. In the long-term course, many of them require medical rehabilitation after interventional or surgical treatment of residual, sequela or complications of their congenital heart defect (CHD). However, up to now only scarce data exist about indication, performance and outcomes of cardiac rehabilitation measures in ACHD.

Methods:

In ACHD, course and outcome of rehabilitation measures, after previous interventional or surgical treatment, is analyzed.

Results:

Included were 205 adults (54% female; mean age 34 ± 12 years (range 16-68 years), with mild (23.9%), moderate (35.1%) or severe CHD (41.0). 32% had complex CHD, 21% right-ventricular outflow tract obstructions, 20% pre-tricuspid shunts, 18% left-ventricular outflow tract obstructions, 9% post-tricuspid shunts, 2% other cardiac anomalies. Main indication for rehabilitation was surgical (92%) or interventional (3%) treatment of the underlying CHD immediately before rehabilitation. No severe complications occurred during rehabilitation. The number of patients in function class I/II increased from 189 to 200, and decreased from 16 to 5 in class III/IV. With the exception of ACE-inhibitors, cardiac medication could be reduced or stopped during rehabilitation in 194 patients. There was an improvement of cardiovascular risk factors.

During a follow-up of 28 months the exercise capacity in 125 ACHD increased from 94 Watt (median 100 Watt, range 50 - 225 Watt) to 139 Watt (median 135 Watt, range 27- 292 Watt).

While before the medical treatment only 77% (157) patients were capable of working, the number increased to 82% (168) at the end of rehabilitation and to 84% (172) during follow-up. Throughout follow-up 9.3% (19) of patients had to undergo further cardiac interventions.

Conclusions:

The current study provides for the first-time extensive data about the course of rehabilitation in a large cohort of ACHD after surgical or interventional treatment. The over-all outcome of ACHD after rehabilitation appears uneventful and favorable. Further analysis is required to assess the clinical long-term outcome, the impact of rehabilitation on health-related quality of life, disease coping and employment. The results of this study can serve as a benchmark for the development of specific rehabilitation programs in ACHD.