A TAILOR-MADE EXERCISE PROGRAM DESIGNED FOR IMPROVING CARDIORESPIRATORY FITNESS IN PATIENTS WITH RHEUMATOID ARTHRITIS AND INCREASED CARDIOVASCULAR RISK

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Background: Rheumatoid arthritis (RA) is associated with low levels of cardiorespiratory fitness (CRF), especially in patients with RA and cardiovascular (CV) risk. The optimization of management of CV risk in patients with RA is an important aim in the treatment, including also exercise, particularly in patients with RA with a high CV risk, defined as a 10-year CV risk of 20% or higher. However, exercise to improve CRF in these patients is challenging since professionals should take multiple factors into account, such as comorbid conditions related to CV risk. It is unknown which intensity of exercise improves CRF and is safe for patients with RA and CV risk.

Objectives: To design a tailor-made exercise therapy program to improve CRF for RA patients with CV risk >20%.

Methods: To design a tailor-made exercise therapy program, patients and experts’ opinions were collected, and a systematic literature search on exercise programs in RA and CV risk factors was performed. The AGSM guidelines were also used to gain insight into frequency, intensity, type and progression of the exercises. In addition, a cardiology rehabilitation team and an arthritis rehabilitation team were consulted during the development of the program. The designed program was partly based on cardiac rehabilitation protocols and especially the way the training load was increased, taking into account the joint load. Finally, the developed exercise program was discussed and approved by an expert panel of patients, rheumatologists, a cardiologist, physical therapists and researchers in rheumatology. The designed program was tested on 10 patients in which the feasibility and safety was tested.

Results: Intensity of exercises was based on the results from the baseline exercise tests showing that on average the VO2max was under the standard. The maximum Heart Rate (HR max), which was on average (mean, SD) 140.6 (10.9) beats per minute, was used to determine the individually performed intensity of exercises. The duration of the program was 12 weeks. Patients had two training sessions per week with a duration of one hour each. To guarantee safety, the training load was progressively increased and the tolerability was assessed at every training. Exercises consisted of aerobic and muscle strength exercises. The first four weeks patients trained 30 minutes (which were spread over three exercises) on 65% of the HR max which was gradually increased until 75% of the HR max in the sixth week. From the fifth week three

exercises to improve muscle strength were added to the program. From the seventh week interval training started, with a peak of 85% of the HR max and a rest of 65% of the HR max. The program also included motivational interviewing because one of the main reasons for a high CV risk is the inactivity during daily life. All patients were motivated to perform 30 minutes of moderate exercises every day at home.

Conclusion: A tailor-made exercise program to improve cardiorespiratory fitness in patients with RA and CV risk is developed, based on the opinion and experience of patients and health professionals and supported by a literature review and guidelines. A progressively increase in intensity of the exercise program, based on the individual maximum HR, is tolerable and safe and might increase cardiorespiratory fitness in patients with RA and CV risk.

REFERENCES:

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Conclusion: This retrospective multi-site service review demonstrated that art therapy was well used by clinicians as an appropriate psychological support for children and young people with rheumatic diseases. Engagement with the service was good and feedback positive. The review highlighted the challenge of objectively assessing outcomes, with the need to use validated and standardised assessment tools to collect this systematically going forward. A standardised service evaluation framework will be developed to facilitate future service reviews and is hoped that this represents a first step in developing evidence-based research to investigate the impact and benefit of art therapy in supporting children and young people in paediatric rheumatology.

Disclosure of Interests: None declared


HPR Patients’ perspectives, functioning and health (descriptive: qualitative or quantitative).

BACKGROUND

Objective: To identify predictive factors of absence of functional disability after 24 months follow-up in a cohort of children with JIA treated at a tertiary referral hospital.

Methods: Longitudinal, retrospective, analytical, and observational study. Patients who met the following criteria were included in the study between 2013 and 2016: to 16 years old, diagnosis of JIA according to the International League of Associations for Rheumatology (ILAR); recently initiated (3 months) care at our clinic, complete C-HAQ (Childhood Health Assessment Questionnaire) records throughout the follow-up period. Patients were treated according to current guidelines for pharmacological and physical therapy. Functional capacity was assessed according to the C-HAQ every 3 months. For the analysis, the C-HAQ scores were divided into 3 categories: 0 - 0.49 (absence of disability), 0.5 - 1.5 (mild to moderate disability), and 1.51 - 3 (severe disability). Univariate comparisons were made to determine the relationship between different variables with the dependent variable “absence of functional disability at 24 months of follow-up”. Independent variables included: disease activity, functional capacity, and treatment-related outcome measures. Those with p values <0.05 were included in a multiple logistic regression analysis. The model was adjusted for basal functional capacity and inflammatory activity at 24 months. Items with a p value <0.05 were considered significant. Adjusted odds ratios (adjOR) and 95% confidence intervals (95% CI) are reported as a measure of association. The precision of the model was analyzed through the Area under the Curve (AUC).

REFERENCES:


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