

European Journal of Physical Education and Sport Science

ISSN: 2501 - 1235 ISSN-L: 2501 - 1235 Available on-line at: <u>www.oapub.org/edu</u>

doi: 10.5281/zenodo.400701

Volume 3 | Issue 2 | 2017

PHYSIOTHERAPY FOR PATIENTS WITH ACUTE MYOCARDIAL INFARCTION TREATED WITH THROMBOLYSIS

Mariela Filipova¹ⁱ, Daniela Popova¹, Ekaterina Mitova¹, Leyla Kraydjikova², Tanya Megova³

¹SWU "N. Rilski", Department of Kinesitherapy, Blagoevgrad, Bulgaria ²NSA"Vassil Levski" Sofia, Bulgaria ³MU Pleven, Bulgaria

Abstract:

Myocardial infarction is the leading cause of death and disability worldwide. Bulgaria has increased the incidence of this disease and the average age is about 50 years old and suffers mostly males. The latest data [4, 8, 9, 10] rehabilitation of these patients reflects favorably on the quality of life. Numerous studies have shown that early conducting of cardiorehabilitation recovery, prevent future vascular incident, improved control of risk factors and improves the quality of life for patients with cardiovascular diseases [1, 5, 6]. It is generally accepted that the basis of the rehabilitation program in patients with AMI and held the PCI are dosed exercise. It includes training, control of risk factors, psychological and social assistance and exercise of low and moderate intensity [2, 3, 7]. Aim of the study is study the effect of the application of a comprehensive program for physical therapy in patients with acute myocardial infarction treated with thrombolysis.

Keywords: kinesitherapy, myocardial infarction, trombolysis

Methods of Study

Hospital rehabilitation program has duration 3-5 days in uncomplicated heart attacks. During hospital rehabilitation, optimal number of classes is up to two times per day for the duration 5-20 min. The appropriate intensity applied exercise is determined based

Copyright © The Author(s). All Rights Reserved.

ⁱ Correspondence: Dr. Mariela Filipova, 66 Ivan Mihaylov str. Blagoevgrad, SWU "N. Rilski" Department of Kinesitherapy, Blagoevgrad, Bulgaria e-mail: <u>mariela_redm@yahoo.com</u>

^{© 2015 – 2017} Open Access Publishing Group

on cardiac ventricular rate. We were studied 40 patients (n = 40), wherein the vein thrombolysis was administered, divided into 2 groups /experimental group (EG) and control group (CG)/. In one experimental group was administered a complex therapy after the 12-th hour of acute conditions. In the control group, the application of the methodology is after 36 hours of acute condition. The average age of the patients from the experimental group was 61.32 ± 6.2 in the control group, 48 ± 5.4 , predominant male patients. We determined the functional status of patients with clinical test for joint-muscle sense, a test of coordination and gait activities of daily living life. Statistical processing and analysis results using computer software SPSS. In an experiment comparing EG and CG from the moment of hospitalization to five days of hospitalization with non-parametric's method for checking the statistical hypotheses - chi-square test. The methodology applied in EG included passive and gradual integration of active movements, exercises to improve coordination and gait. In the control group patients are not receive trombolysis.

Results

Comparing the aggregate initial and final tests of Barthel Index shows that before physiotherapy's treatment, patients with limited motor capabilities and extremely difficult to perform the activities of daily life /quality of life is reduced/. After the applied methodology and treatment in the majority of patients to establish functional independence and restore muscle strength. Decreased complaints of angina and shortness of breath. This reorganization is significant in patients in EG and reduced in patients of CG. During the hospitalization, the values of the Barthel index are 5 to 65. After a treatment index the values are about 85 with a maximum of 100 points associate recovery of motor skills in patients with implementing the new complex methodology (combination of venous thrombolysis and specialized exercises). From the resulting data can be concluded that the applied methodology leads to functional independence in the patient.

Conclusion

Conducting cardiorehabilitation is an integral part of the healing plan of patients with myocardial infarction It is associated with improved prognosis and quality of life. Presented by our physiotherapy's program satisfies the requirements. It is well tolerated by patients, leading to recovery and a significant increase in their physical operating capacity. During its implementation, we saw no severe complications. For this reason, we have reason to offer approbation of our rehabilitation program in general clinical practice for functional recovery of patients after acute myocardial infarction.

References

- 1. Berger, A.K., Duval, S., Jacobs, DR Jr., Barber, C., Vazquez, G., Lee, S., Luepker, RV. Relation of length of hospital stay in acute myocardial infarction to postdischarge mortality. Am J Cardiol 2008;101:428–434. 2
- Borg, G. Psychophysical bases of perceived exertion. Med Sci Sports Exerc, 14:377-381, 1982. 10. Brown, A., Taylor, R, Noorani, H, Stone, J, and Skidmore, B. Exercise-based cardiac rehabilitation programs for coronary artery disease: a systematic clinical and economic review. Ottawa. Canadian Co-ordinating Offfice for Health Technology Assessment, 2003.
- 3. De Luca, G., Suryapranata, H., van 't Hof, AW., de Boer, MJ., Hoorntje, JC., Dambrink, JH., Gosselink, AT., Ottervanger, JP., Zijlstra, F. Prognostic assessment of patients with acute myocardial infarction treated with primary angioplasty: implications for early discharge. Circulation 2004;109
- Giannuzzi, P., Temporelli, PL., Marchioli, R., Maggioni, AP., Balestroni, G., Ceci, V. et al. Global secondary prevention strategies to limit event recurrence after myocardial infarction: results of the GOSPEL study, a multicenter, randomized controlled trial from the Italian Cardiac Rehabilitation Network. Archives of Internal Medicine. 2008; 168(20):2194-2204. 5
- 5. Gillison, F. B., Skevington, SM., Sato, A., et al. The effects of exercise interventions on qualityof life in clinical and healthy populations; a meta-analysis. Soc Sci Med. 2009 May; 68(9):1700-10. Epub 2009 Mar 18. 6
- 6. Grines, C. L., Marsalese, D. L., Brodie, B., Griffin, J., Donohue, B., Costantini, CR., Balestrini, C., Stone, G., Wharton, T., Esente, P., Spain, M., Moses, J., Nobuyoshi, M., Ayres, M., Jones, D., Mason, D., Sachs, D., Grines, LL., O'Neill, W. Safety and costeffectiveness of early discharge after primary angioplasty in low risk patients with acute myocardial infarction. PAMI-II 149
- 7. Mihaylova, N., Movement foundation of occupational therapy. Rehabilitation medicine and quality of life, I. 2007, №2, pp. 27-28.
- 8. Megova, T., Approbation methodology for rehabilitation of patients with acute myocardial infarction during the first phase inpatient rehabilitationsport and science. (3) 2015, pp 122-129

- 9. Filipova, M., dissertation, SWU "Neofit Rilski", pp-127-141
- 10. Taylor, R. S., Brown, A., Ebrahim, S. et al. Exercise-based rehabilitation for patients with coronary heart disease: systematic review and meta-analysis of randomized trials. Am J Med. 2004; 116: 682–697

Creative Commons licensing terms

Authors will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Physical Education and Sport Science shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflict of interests, copyright violations and inappropriate or inaccurate use of any kind content related or integrated on the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a <u>Creative Commons Attribution 4.0 International License (CC BY 4.0)</u>.