



European Heart Journal

# Acute Cardiovascular Care



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# European Heart Journal Acute Cardiovascular Care

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It offers a unique integrative approach combining the expertise of the different subspecialties of cardiology, emergency and intensive care medicine in the management of patients with acute cardiovascular syndromes. The journal includes articles that discuss interdisciplinary daily clinical practice, with space also dedicated to educational materials such as reviews, clinical case discussions, practical tips & tricks and how-to articles.

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## 20321

**Effect of modular cardiac rehabilitation on quality of life, exercise tolerance and psychological status in patients with myocardial infarction and COVID-19 infection**

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**Introduction:** COVID-19 worsens the prognosis in patients with cardiovascular diseases, including myocardial infarction (MI). In connection with this, cardiac rehabilitation (CR) programs must be adapted for this category of post-infarction patients. Little is known on effect of CR on quality of life and anxiety and depression in patients with MI and COVID-19.

**Objective:** The aim of the study was to evaluate the use of a modular CR program on quality of life, exercise tolerance, anxiety and depression in post-infarction patients recovered from COVID-19 infection during a pandemic.

**Methods:** Overall, 86 patients with previous COVID-19 infection were included in this prospective longitudinal study. We evaluated the parameters of quality of life according to the Seattle questionnaire, exercise tolerance according to the six-minute walk test, and the depression and anxiety rating scale (HADS) before and after applying the modular CR program.

**Results:** According to the computed tomography (CT) classification, the severity class of lung lesions was: grade CT1 -23%, CT2-48%, CT3-23% and CT4-6%. When assessing the quality of life before the start of the modular CR -74% complained of episodic attacks of angina pectoris, while at the end of the CR, only 5% of had chest pain ( $p < 0.05$ ). Tolerance to physical activity according to the 6-minute walk test improved significantly from  $245 \pm 3.6$  meters before CR to  $355 \pm 5.1$  meters in dynamics ( $p = 0.012$ ). The depression and anxiety reduced significantly ( $p = 0.0023$ ) after CR: before the onset of modular CR 55% of patients were depressed in and 69% exhibited anxiety; after CR, depression in 10.4% of patients had depression and 7% - anxiety.

**Conclusions:** The use of a modular CR program in postinfarction patients with COVID-19 improves the quality of life, exercise tolerance and psychological status.



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