SPECIFIC FEATURES OF CARDIORENAL DISORDERS IN PATIENTS WITH MYOCARDIAL INFARCTION AND SARS-Cov-2 INFECTION

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Introduction

The coordinated cooperation of all systems of the human body maintains the constancy of the internal environment. Renal dysfunction is closely related to the pathology of the cardiovascular system and numerous cardiovascular complications. Therefore, functional and organic kidneys disorders are a serious medical and socio-economic problem of modern society.

Aim

To assess renal function among patients with myocardial infarction (MI) and SARS-Cov-2 infection and without it.

Materials and methods

Retrospective analysis of 27 patients history cases was done in the Grodno Regional Clinical Cardiology Center. Patients with MI were divided into 2 groups depending on the presence or absence of SARS-Cov-2 infection (Antibodies to SARS-Cov-2 Ig M, PCR positive, asymptomatic). The analysis was done using the program "Statictica" 10.0.

Materials and methods

We assessed age; glomerular filtration rate, which was calculated using the formula CKD-EPI, laboratory parameters of biochemical blood tests (creatinine, urea, total protein, glucose, cholesterol), analysis of urine, comorbid pathology, recommendations to the outpatient stage of treatment.

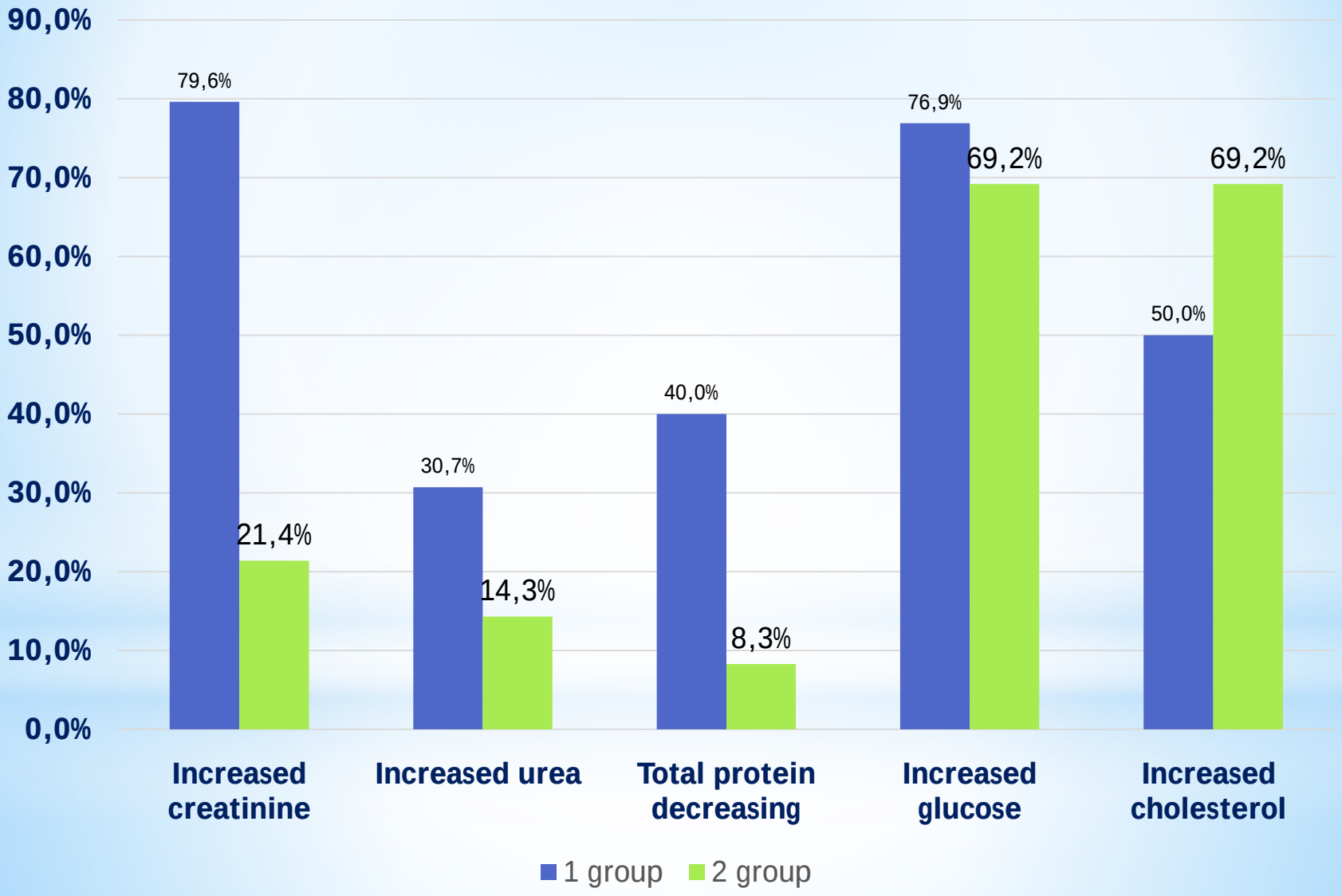
Results and conclusions

27 patients with MI were examined. **13 patients have myocardial infarction and SARS-Cov-2 infection.**

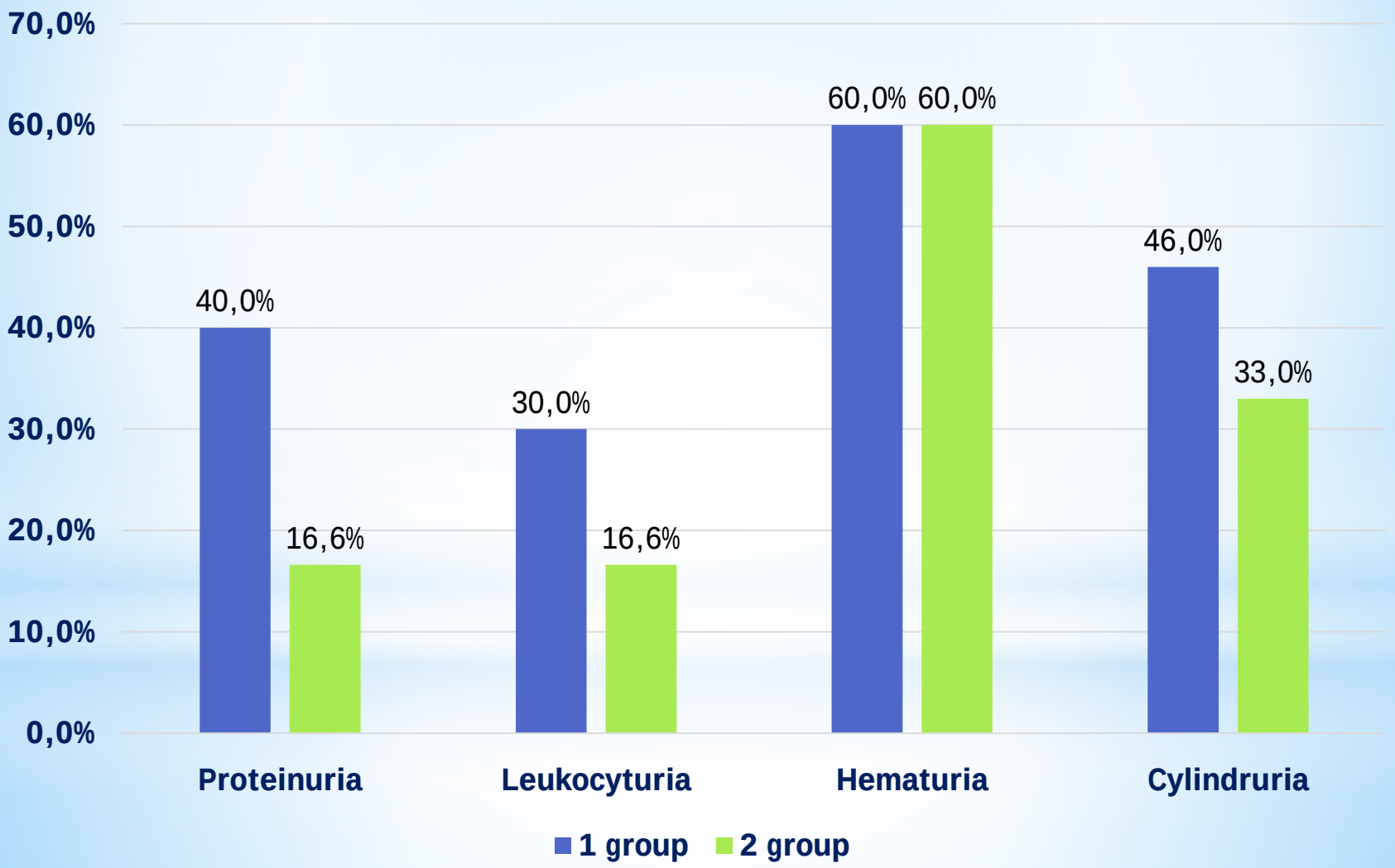
The average age of the patients was 65±5,2 years (21 men and 6 women).

Group 1 consists of 13 patients with MI and SARS-Cov-2 infection, it includes 3 women and 10 men.
Group 2 consists of 14 patients with MI, it includes 3 women and 11 men.

Results and conclusions



Results and conclusions

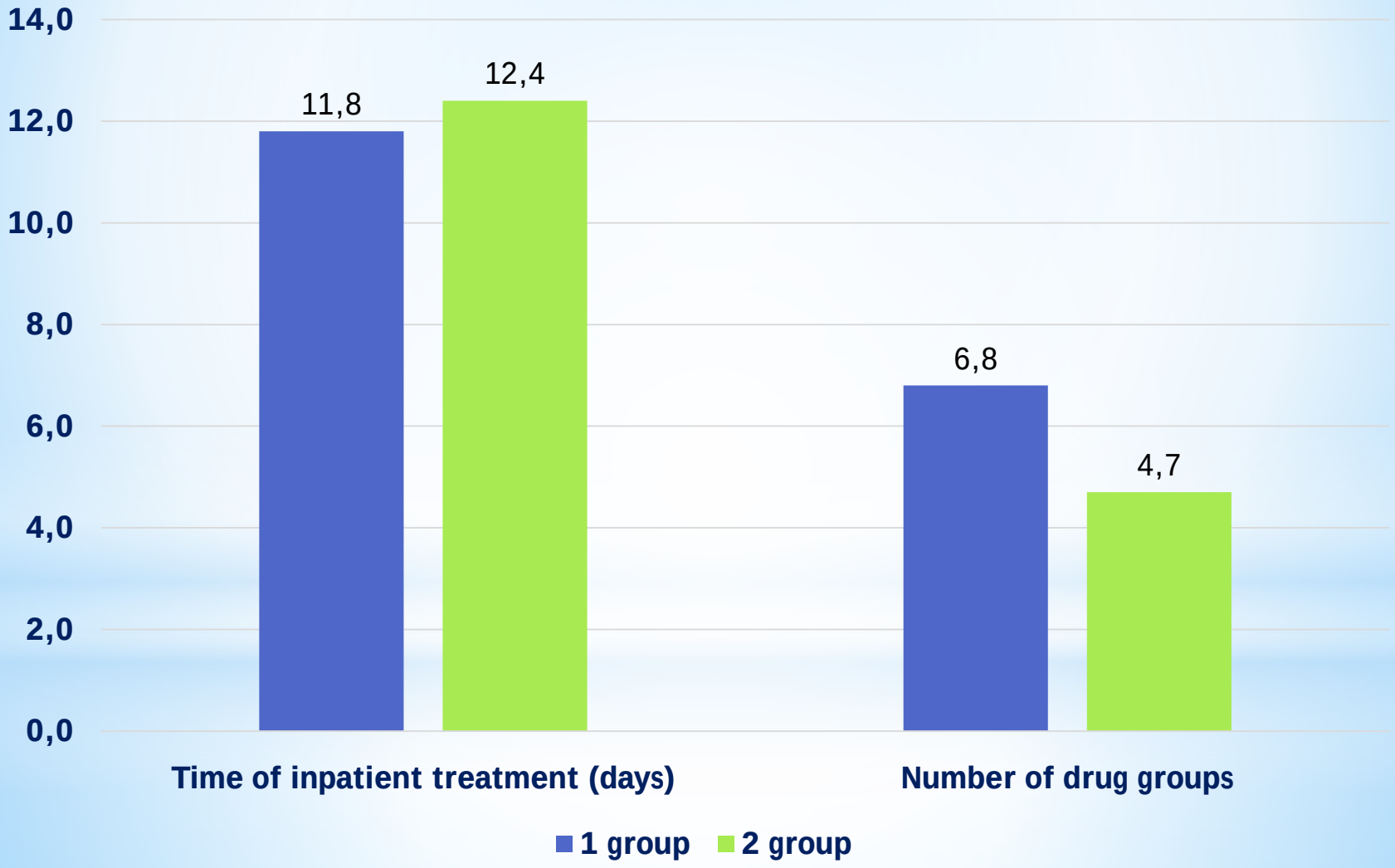


Results and conclusions

- **GFR** was calculated using the CKD-EPI formula and was 50±1.56ml/min/1.73 m2 in group 1 and 69±5.7ml/min/1.73 m2 in group 2.
- The level less **than 90 ml/min** was determined at all patients from group 1 and at 85,7% patients from group 2.
- The level less **than 60 ml/min** was determined at 85,7% patients from group 1 and at 38,4% patients from group 2.

- In group 1 arterial hypertension was detected in 100% of patients; obesity in 23.0%; diabetes mellitus in 7.7%, chronic pyelonephritis in 15.4%.
- In group 2 arterial hypertension was detected in 100%; obesity in 21.4%; diabetes mellitus - in 35.7%, urolithiasis disease - in 14.3%, kidneys cysts – in 7,1%.

Results and conclusions



Results and conclusions

- Disorders of the kidney function in the patients with MI and SARS-Cov-2 infection were detected **in 92%.**
- Violations of renal function in all indicators are more determined in patients of group 1 (MI and SARS-Cov-2 infection).
- Patients with CKD and MI on the background of a viral infection need more intensive therapy for their condition.
- Changes in laboratory parameters are detected more often among men than among women.

Results and conclusions

63% of the studied patients are comorbid patients who need intensive care. The outpatient stage of therapy is a very important stage in the treatment of such patients, and it is also necessary to focus on renal dysfunction. It is important to approach individually and carefully the diagnosis, treatment and prevention of conditions that lead to impaired renal function, to monitor the level of GFR and the implementation of medical recommendations at the outpatient stage of therapy. Because insufficient therapeutic correlation of disorders will lead to the aggravation and progression of CKD.

Thank you for your attention!