

Tytuł pracy: IMPROVEMENT OF THE CLINICAL TREATMENT GUIDELINES IN PATIENTS WITH CORONARY DISEASE BY ASSESSMENT OF VIABLE MYOCARDIUM BY MYOCARDIAL PERFUSION**Autor:** Viktoriia Kundina**Afiliacja:** National Healthcare University of Ukraine, Kyiv**Adres email:** vika.kundina@gmail.com**Współautor, Afiliacja, adres email:** Yuliia Storozhchuk National Healthcare University of Ukraine, Kyiv
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Afiliacja: Introduction. When solving questions about myocardial revascularization, the cardiac surgeon solves a number of important aspects of surgical intervention, one of the main ones of which is the assessment of viable myocardium (VM). The most informative method of assessing VM is radionuclide with the use of radiopharmaceuticals (RP), which accumulate in the myocardium in proportion to the intensity of coronary blood flow.

The purpose of the study: to determine the stages of scintigraphic assessment of VM as a method of improving the clinical guidelines in patients with coronary heart disease (CHD) before coronary artery bypass grafting (CABG).

Material and methods. The study is based on an examination of 82 patients with coronary heart disease who underwent CABG. Myocardio scintigraphy (MSG) was performed in single-photon emission computed tomography (SPECT) mode and in SPECT mode with X-ray CT (SPECT/CT) on the Infinia Hawkeye gamma camera from GE (USA). MSG was performed on an empty stomach. The preparation of the patient for MSG during the evaluation of LV included the exclusion of antianginal, hypotensive and antiarrhythmic drugs. RP - ^{99m}Tc -MIBI was used. ^{99m}Tc -MIBI was administered intravenously with an activity of 555-740 MBq. The study was conducted 45-60 minutes after the introduction of RP. MSG results were evaluated using ECToolBox and Myovation on Xeleris software with qualitative and quantitative scintigrams. The presence of VM was assessed semi-quantitatively and quantitatively using the 17-segment "bull's eye" model based on the percentage of RP inclusion in each segment of the model.

Obtained results. The method of scintigraphic preoperative assessment of the number of VM is as follows: Proper preparation of the patient for MSG, namely, on the eve of the study, cancel all antianginal, hypotensive, and antiarrhythmic drugs; sufficient RP activity for the study, at least 6-7 MBq/kg, to obtain statistically reliable data on the distribution of RP in the myocardium.

Conducting research with ECG synchronization; MSG data processing is carried out in the Myovation program system; qualitative (visual) assessment of myocardial scintigrams; quantification of myocardial scintigrams using the 17-segment "bull's eye" model; assessment of the number of LVs in the system of polar maps, which are a planar representation of the number of pulses in each segment of the myocardium. The limit is the fixation of RFP below 50%.

Conclusions. The presented method of assessing the viability of the myocardium allows to objectively assess the VM in patients with coronary heart disease before CABG in different modes of MSG and is the main and integral

part of the research protocol of such patients.

Obraz uzupełniający: [Przesłany plik](#)