

Tytuł pracy: SCINTIGRAPHIC ASSESSMENT OF POST-INFARCTION CHANGES OF THE MYOCARDIUM OF LEFT VENTRICULAR**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. Functional diagnostics allows to assess the presence of post-infarction changes, their severity, but has limited application in relation to the area of myocardial damage. In this case, radiation imaging methods such as MRI, CT and radionuclide: SPECT and PET come. Radionuclide methods for assessing postinfarction myocardial changes are more physiological and reliable compared to other methods.

The purpose of our work is to evaluate the diagnostic capabilities of myocardial scintigraphy (MSG) in the SPECT mode in determining post-infarction changes in the LV myocardium and the area of its lesion.

Material and methods. 45 patients with post-infarction atherosclerosis were examined. Damage to the area of the right coronary artery (RCA) was diagnosed in 17 patients (37.7%); the right interventricular branch of the left coronary artery (LCA) in 12 patients (26.7%); of the left circumflex branch of the LCA in 10 patients (22.2%) and lesions of two arteries - in 6 patients (13.4%). The average age of the patients was 59.5 ± 7.1 years. MSG in the SPECT mode was performed on the Infinia Hawkeye gamma camera according to the standard method. ^{99m}Tc -MIBI was administered intravenously - 555-740 MBq. Myocardio scintigrams were evaluated qualitatively and quantitatively. The area of the post-infarction lesion was calculated only in segments - less than 50%.

Research results and their discussion. Thus, in the case of PCA damage, post-infarction changes occupied 5 segments of the myocardium with an area of damage of $32.7 \pm 5.4\%$ with levels of RFP accumulation of $45.4 \pm 5.9\%$ at the norm of $79, 8 \pm 3.7\%$. 8 segments had a level of accumulation of RFP from 65 to 75%, which was estimated as moderate ischemia. 4 segments had a normal level of RFP accumulation. In the case of PMSHG LKA lesion, post-infarction changes occupied 7 segments of the myocardium with a lesion area of $43.7 \pm 5.1\%$ with levels of RFP accumulation of $47.8 \pm 4, 9\%$. 5 segments had a level of accumulation of RFP from 65 to 75%, which was estimated as moderate ischemia. 5 segments had a normal level of RFP accumulation. In case of damage to OG LKA, post-infarction changes occupied 5 segments of myocardium with a lesion area of $34.3 \pm 7.2\%$ with levels of RFP accumulation of 41.9 ± 6.5 . 5 segments had a level of accumulation of RFP from 65 to 75%, which was estimated as moderate ischemia. 7 segments had a normal level of RFP accumulation. In patients with lesions of two basins of coronary arteries, post-infarction changes occupied 9 or more segments with a lesion area of $65.8 \pm 6.8\%$, with levels of RFP accumulation of $43.9 \pm 5.2\%$. All unaffected segments had a level of RFP accumulation at levels of 65% or less - ischemia.

Conclusions.

1. MSG using the SPECT technology is a highly informative method of assessing the presence of areas of myocardial damage with cicatricial changes in patients with post-infarction atherosclerosis.

2. MSG allows to assess the prevalence of post-infarction changes.

Obraz uzupełniający: [Przesłany plik](#)