

Myocardial Scintigraphy at Rest in Chest Pain

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The diagnostic contribution of perfusion myocardial scintigraphy at rest, to the best of our knowledge, is to bring the information that our patient, when presenting a picture of precordial pain without a diagnosis, either presents coronary occlusion or necrotic myocardium¹.

That does not mean that it is a case of atrial necrosis or occlusion. Specifically, if we use this method in patients with a history of infarction, we believe that there is no influence on the therapeutic decision. Similarly, for diabetic patients or those with CAD (as approximately 80% of the population in this study), the perfusion myocardial scintigraphy at rest

does not even reclassifies the patient's situation as presenting higher or lower risk.

Personally, we would limit the test indication for patients with a previous history of CAD or DM with chest pain and non-diagnostic ECG, although we have to face limiting factors regarding the applicability of this strategy, such as the high cost and difficult access to the equipment in most emergency situations. Therefore, we have diagnostic alternatives, such as CK measurement: in addition to being low-cost, its use is easily approved and the necessary equipment is promptly obtained^{2,3}.

Thus, the use of perfusion scintigraphy at rest to evaluate patients with a suspected ischemic wall helps in the emergency environment, as a limited strategy for patients with no previous history of AMI. We believe, however, that the relation of the number of scintigraphies for a diagnosis in this population is not a favorable one²⁻⁴.

Key words

Radionuclide imaging; myocardium; chest pain.

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Manuscript received May 18, 2009; revised manuscript received May 18, 2009; accepted June 18, 2009.

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Answer to letter

I would like to answer this letter by apologizing. I believe that perhaps, the above article, written after a seven-year experience at the emergency department of a reference hospital, such as Pro-Cardiaco, was not clear for some colleagues. The myocardial perfusion scintigraphy is a broadly used method in patients with suspected myocardial ischemia at emergency services; many studies have been published on the subject and thousands of patients have been studied during years of follow-up. The objective of this study, carried out at a private institution of which aims are both research

and assistance, is to create its own experience with a new method for our reality of Chest Pain Units and adequate such method to our environment. As demonstrated in the study, a number of patients with chest pain, non-diagnostic ECG and no results concerning MNM can undergo a scintigraphy image acquisition up to 30 minutes after their arrival at the emergency service, which will provide diagnostic and prognostic information regarding perfusion defect, involved artery and extension of its involvement, left ventricular global and segmental function and myocardial thickening¹.

We were able to adequate the method to our reality, as

demonstrated in our study, and undoubtedly, as mentioned in the article, we stratified at-risk patients within a reasonable time frame for our reality, having as reference our high-risk patient service.

There are currently many types of tests and assessment methods for patients with chest pain at the emergency room. We emphasize that the best method is the one that the service has the largest experience with.

To our understanding, the diagnostic contribution of resting myocardial perfusion scintigraphy is to bring the information that the patient presenting precordial pain without a diagnosis has either occluded coronaries or necrotic myocardial injuries.

This fact does not mean that either the necrosis or the occlusions are atrial ones. In particular, if we use this method in patients with a history of infarction, we believe that no new information is added that would help in the therapeutic decision-making. Likewise, in diabetic patients or those with CAD (as approximately 80% of this studied population), the resting myocardial perfusion scintigraphy does not even

reclassifies the patient as higher or lower-risk. Personally, we would restrict the indication to patients with no previous history of CAD or DM with chest pain and non-diagnostic ECG, although there would be some limits to the applicability of this strategy, namely the high cost and difficult access to the equipment, for most emergency services. Therefore, there are diagnostic alternatives, such as CK measurements, which, in addition to being lower-cost, are easily approved and of which necessary structure installation is easier to achieve^{2,3}.

Hence, the use of the resting perfusion scintigraphy to evaluate patients with suspected ischemic injury helps, within the emergency department environment, as a limited strategy for patients without a previous history of AMI, but we believe that the proportion between the number of scintigraphic evaluations and attained diagnosis in this population is not a favorable one^{2,4}.

Sincerely,

Gustavo B. Barbirato

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