will be encouraged to offer the commitment and resources required to continue on the path to a level of health care excellence we all desire.

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Initiatives to Achieve Excellence in the Care of Acute Coronary Syndrome. Response

Iniciativas para conseguir una atención excelente en el síndrome coronario agudo. Respuesta

To the Editor:

We appreciate the interest shown in our article[1] published in *Revista Española de Cardiología* and the comments made. We agree with Lozano et al. that our intervention is only one option and that it could complement other ways to improve quality of care. Undoubtedly, the 2 strategies suggested by the authors could enhance our proposed model.

In our case, we realized the need to reduce the incidence of bleeding events in patients with acute coronary syndrome due to an exhaustive coding of diagnoses. In addition to participating in the RECALCAR program, the cardiology service of *Hospital General Universitario Gregorio Marañón* also participates in the Cardiac Section of the Benchmarking Club, which publishes an annual series of data comparing the participating hospitals. In 2009, patients (most with acute coronary syndromes) who underwent a percutaneous coronary intervention and who were admitted to the cardiology service of our hospital had a crude bleeding rate of 12.5%, higher than the mean of the hospitals in the Benchmarking Club (9.5%) and the national average (8.6%).[2] However, the bleeding rate reported by each center is entirely reliant on the degree of hospital coding (because the analyses are based on the Spanish Minimum Basic Data Set), as correctly noted by the authors of the letter, and our hospital performed one of the most exhaustive coding of diagnoses and complications of all participating in the Benchmarking Club.

Despite the limitations inherent to these voluntary programs, our results were key to the identification of improvement opportunities and guided us toward the need to develop a multidisciplinary strategy to reduce bleeding events and assess their economic and health effects.

Adequate monitoring of health care quality requires measurement of both activity and outcomes.[3] While acknowledging the limitations noted in the measurement tools and the different monitoring systems, we believe that incomplete or imperfect information is still better than no information at all. This knowledge should be the starting point for the development of strategies to improve quality of care or, in the worst case scenario, of measurement instruments or systems. Declaring that instruments do not work without doing anything to change them is not a responsible approach.

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CONFLICTS OF INTEREST

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Remarks on the Position Paper on Cardio-Onco-Hematology and Remarks on the Review of Cardiac Imaging Modalities for the Detection of Cardiotoxicity

Puntualizaciones al documento de consenso en cardio-onco-hematología y a la revisión sobre técnicas de imagen cardiaca en detección de cardiotoxicidad

To the Editor,

The Nuclear Cardiology Working Group of the Spanish Society of Nuclear Medicine and Molecular Imaging would like to make some comments on the recent articles by López-Fernández et al.[1,2]

In the first article, the authors state that "isotopic ventriculography should not currently be considered for monitoring onco-hematologic treatments due to the risk associated with ionizing radiation", without providing any specific reference supporting this statement, whereas the second article does not even mention isotopic ventriculography.

Strong scientific evidence supports the effectiveness of nuclear cardiology techniques in assessing ventricular function, and isotopic ventriculography is the gold standard for evaluating chemotherapy-induced cardiotoxicity. Ventriculographic calculation of left ventricular ejection fraction using nongeometric methods does not suffer from the errors of other diagnostic techniques caused by changes in ventricular morphology or in regional wall motion.

Not only do classic studies of anthracycline-induced cardiotoxicity show that isotopic ventriculographic monitoring of left ventricular ejection fraction reduces the incidence of heart failure by up to 4 times, but, when it does occur, it is reversible and less severe.[3] Based on this scientific evidence, ventriculography has been widely used in clinical practice since the 1980s, as well as in innumerable clinical trials monitoring cardiotoxicity.[4]

Because of its high reproducibility, ventriculography is an ideal technique to monitor cardiac function. Compared with echocardiography, ventriculography shows much lower intraobserver and interobserver variability, an essential consideration when tracking small variations in left ventricular ejection fraction and detecting early deterioration in the subclinical phase before heart failure development.[4]

The second article acknowledges the drawbacks of other diagnostic techniques that can be used to evaluate cardiotoxicity: low reproducibility (2D echocardiography), reduced availability, and few published data (3D echocardiography and global longitudinal strain), lack of availability (magnetic resonance), and lack of usefulness (computed tomography), but the article fails to include any information on isotopic ventriculography, which is superior to all of the previous techniques in terms of reproducibility, reliability, and use in clinical practice and also benefits from decades of scientific evidence.

The modality is unaffected by obesity, acoustic windows, claustrophobia, breast prostheses, and pacemakers and its cost is similar to that of the alternative modalities.[5]

Analysis of the scientific evidence on radiation and its associated risk is vital. There are no data on cancer induced by radiation exposure from nuclear cardiology studies. The radiation exposure from ventriculography is equivalent to that of 3 to 6 months exposure to background radiation. The natural incidence of cancer exceeds the theoretical rate of supposed radioinduced cancer and is lower than that caused by background radiation.[6] The radiation from computed tomography and radiotherapy, commonly used in oncology patients, is much higher than that of ventriculography.[7]

Nuclear physicians adhere to ALARA (As Low As Reasonably Achievable) criteria, using the lowest dose possible and attempting to reduce it even further by using new systems and improved techniques. Thus, nuclear cardiology is a critical strategic component in the multimodality approach to cardio-oncology.[8]

Accordingly, the articles by López-Fernández et al. should have noted the crucial role played by isotopic ventriculography in cardiotoxicity detection due to its reliability, reproducibility, and low radiation, with clearly superior benefits for patients; all these benefits are supported by extensive scientific evidence. Monitoring of patients receiving cardiotoxic treatments should be multidisciplinary, with coordination among oncologists, cardiologists, and cardiac imaging specialists to ensure that the method with the best results is applied and that patients are not denied the gold standard technique without scientifically sound reasons.