

## Evidence From Pacing in Obstructive Hypertrophic Cardiomyopathy. Response



### Evidencia del tratamiento con marcapasos en la miocardiopatía hipertrófica obstructiva. Respuesta

#### To the Editor,

We thank the authors for their comments and share their opinion on the limited role of atrioventricular sequential pacing (AVSP) in clinical practice guidelines, given that these recommendations are primarily based on 3 small placebo-controlled trials that are not without limitations.<sup>1</sup> The superiority of septal reduction techniques over AVSP has also only been shown in highly specialized centers. The shortage of such centers in Spain and the undesirably high morbidity and mortality associated with septal reduction techniques (15% in myectomy and 40% in septal ablation) make AVSP an appealing strategy in suitably selected patients.

In addition, AVSP has shown greater clinical benefit in elderly patients with more pronounced baseline functional impairment.<sup>1</sup> Thus, the notable improvement in the subjective functional class described in our study could be related to the high average age of the patients in our sample (66 years) and the high percentage of them in an advanced functional class (93% in New York Heart Association [NYHA] class III-IV). Although the average patient age in the study by Sandín et al<sup>2</sup> was similar to that of our cohort, their study did not include patients in functional class IV and only 62.9% were in class III, possibly explaining the differences in functional improvement. Despite the large sample size and long-term follow-up, we recognize that one of the main limitations of our study is the absence of an objective evaluation of the functional class. Although subjective evaluation of the functional class via

the NYHA classification continues to play a large role in determining changes in clinical practice, it would undoubtedly be useful to design studies objectively analyzing the effects of AVSP through not only conventional exercise testing (requiring indirect inference of the functional class), but also oxygen consumption studies.

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## Heart Team Decision-making in Spain: Is There Room for Improvement?



### Toma de decisiones por el equipo cardíaco en España: ¿hay margen de mejora?

#### To the Editor,

We have read the letter by Fernández-Rodríguez et al<sup>1</sup> about decision-making in cardiology patients and we would like to congratulate the authors on their original analysis. The choice of type of treatment to be applied is a key moment, and the decision-making process, with consultation between clinician and surgeon, begins with the coronary angiography. The importance of this process is reflected in the 2014 Myocardial Revascularization Guidelines of the European Society of Cardiology,<sup>2</sup> in which the creation of a Heart-Team is a class I recommendation with level of evidence C.

There are several factors that influence the decision and the study by Fernández-Rodríguez et al<sup>1</sup> reflects a variable not considered until now, related to group behavior in decision making. Considerations on the incidence of coronary artery disease notwithstanding, Spain is the European country with the lowest rate of coronary artery surgery (17.7 cases/100 000, whereas countries such as Germany, Denmark, Belgium, and Turkey have as many as 67–68 cases/100 000), a fact we believe is worthy of reflection.<sup>3</sup> The factor indicated by Fernández-Rodríguez et al<sup>1</sup> can be considered unmodifiable, but there are other modifiable factors that could reduce these differences. In our opinion, although the Heart-Team does not have any administrative function, it has

sovereignty on clinical decision and should analyze the situation of the cardiovascular treatment in its catchment area and look for potential improvements. In more flexible models, such as in New York in the United States,<sup>4</sup> the process is strictly controlled by the clinic and failure to apply the guidelines has legal consequences. The clinic itself chooses the interventionist or surgeon in agreement with the patient, whose insurance pays for the procedure even if the chosen operator resides outside the patient's hometown or state. In addition, the New York model includes an audit of outcomes weighted according to the complexities of the case by external auditors who report to the state of New York. The risk for each patient is calculated by logistic regression according to their clinical characteristics, and errors in the data provided to the auditors result in hefty sanctions for the center. With this model, mortality decreased by 41% between 1989 and 1992, and from 1992 onwards, data have been available on the Internet by operator and center, such that the patient has access to them. Finally, there is no waiting list as the patients themselves will penalize the center by going to another.

In Spain, our model has highly qualified operators and up-to-date infrastructure, but there are several factors that could be modified, at least partially, and these factors are, in our opinion, what has led to the current situation. The first defect is that patients are forced to attend a given center, without the option of choosing the clinical cardiologist or operator, and these professionals are paid the same regardless of their ability, activity, and results. Second, the lack of transparency in the waiting lists for surgery means that clinicians and interventionists are distrustful of surgery when a prolonged wait may be detrimental to the patient.<sup>5</sup> Third, given a lack of infrastructure, audits, in addition to

being limited in number, have been criticized for being based on administrative information and not on the clinical characteristics of the patients.<sup>6</sup> This model failed in New York and led to a suspension of audits until the current model based on individual risk was implemented.<sup>4</sup> Finally, a reduced presence of the clinician in the decision-making process, in combination with loss of confidence in surgery and a lack of consequences if guidelines are not applied, means that the decision power of the interventionist is high and that patients who arrive in the catheterization laboratory are highly selected.

Although a complete solution to these problems would appear a utopic ideal, we believe it is possible to try more flexible models, as the structure is, to a large extent, responsible for the current situation.

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## Heart Team Decision-making in Spain: Is There Room for Improvement? Response



### Toma de decisiones por el equipo cardiaco en España: ¿hay margen de mejora? Respuesta

#### To the Editor,

We truly appreciate the interest shown by Lozano et al in our article<sup>1</sup> and we would like to make some remarks about their comments.

Despite the inherent limitations of the concept of a heart team,<sup>1</sup> collective decision making in cardiology is of central importance. This decision-making is influenced by the specific characteristics and preferences of each patient and by the availability of resources. The decision-making can be modified both by the internal heart-team dynamics and by oversight of outcomes by the health authorities.

One of the most noteworthy care models is that of New York State in the United States.<sup>2</sup> There, the health authority audits and assesses the care processes based on standard and mandatory reporting derived from individual patient data. The results are available in the public domain and posted yearly. They contain data on percutaneous coronary intervention, heart surgery, and pediatric heart surgery and are adjusted by clinical risk factors. Publication of outcomes has led to homogenization of cardiovascular disease management and heart team actions in New York State. This has all contributed to a substantial reduction in mortality.

We agree with Lozano et al<sup>1</sup> that the difficulty in referring patients to other centers, the lack of transparency in the waiting lists, audits based on administrative data, and the progressive loss of influence of clinical cardiologists in decision making are aspects that could be improved in the Spanish health system.

However, our previous criticism of the limitations of the heart team would remain purely a mental exercise if the assessment of a given decision-making system was not backed up by hard data.<sup>1</sup>

This is why the initiatives to assess the health outcomes for cardiovascular disease, such as INCARDIO,<sup>3</sup> are very important for determining whether the actions of a given group are in line with the required quality objectives for care.

In view of the above, in addition to practical clinical guidelines for the treatment of specific diseases, scientific societies should draft action protocols for heart teams. Centers should attach the minutes of heart-team meetings to the patient documentation, and the health authorities should then assess the centers according to adherence these protocols.

In conclusion, standardization and protocolization of the actions of heart teams and subsequent assessment of their outcomes are essential for clinical decision-making in Spain.

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