

practice during LVAD implantation is vasoactive support with adrenaline and milrinone to reduce the probability of right heart failure, as the authors mention. However, in this case, by not performing a myectomy despite the dynamic left ventricular outflow gradient, they may have created the ideal environment for suction events. The vasoactive support could have increased the left ventricular outflow tract gradient and also created a high intraventricular gradient due to the increased midventricular inotropy facilitated by the adrenaline, together with the suction created by the LVAD. Considering these factors, despite the good outcome described, we believe that the performance of myectomy during implantation could help to improve the postoperative treatment of patients with obstructive left ventricular outflow tract gradients.

We would like to add that long-term ventricular assistance in cardiomyopathies with restrictive physiology is a challenge. The most important determining factor when considering LVAD implantation in these patients is probably the dimensions of the cardiac chambers. Grupper et al.³ reported the largest published series of patients with cardiomyopathy, restrictive physiology, and LVADs, and observed that patients with smaller ventricles had a worse prognosis. In such patients, it is generally very difficult to achieve adequate ventricular assistance because they are very sensitive to volumetric changes and they are prone to suction events with postural changes. This often means that the revolutions of the device have to be reduced to avoid the cavity collapsing, and this, in turn, increases the risk of pump thrombosis and/or embolic events. Therefore, careful anticoagulant and antiplatelet therapy is required in these patients.

Last, we would like to congratulate the authors once more on the good outcome they achieved, although in our opinion LVAD therapy in cardiomyopathy with restrictive physiology is not free

from significant complications and should be reserved for centers with a high annual caseload.

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Implantation of Ventricular Assist Devices in Hypertrophic Cardiomyopathy. Is It a Safe Option? Response



Implante de dispositivo de asistencia ventricular en miocardiopatía hipertrófica. ¿Es una opción segura? Respuesta

To the Editor,

We have read with interest the response of Uribarri et al. to our report.¹ The patient had severe left ventricular dysfunction. This patient was evaluated and not considered a good candidate for septal myectomy, which would not improve his severe systolic impairment and adverse remodeling. Severe systolic impairment is a rare complication in patients with hypertrophic cardiomyopathy that has a poor prognosis²; this situation would not be improved by performing an isolated myectomy.

All surgical considerations described by Uribarri et al. were also evaluated by our team, as well as the opinion of international surgeons with hundreds of implants. As reported, we performed an intraoperative examination of the left ventricle, when the patient was on pump, which included visual and digital examination of the cavity, in addition to the preoperative analysis of transthoracic and transesophageal echocardiograms. There was enough space after

the coring without any possibility that the inflow caused any suction of the trabecules, if the pump was correctly positioned. We considered performing a myectomy during the implantation and decided that the risks outweighed the potential benefits. Although inotropes could theoretically increase the outflow tract gradient, this would be a minor complication at short term, because the effects would be the same as those of a closed aortic valve. We did not see any midventricular gradient; probably as the result of the good selection of a patient with enough cavity. We would like to point out that adding more procedures to device implantation leads to a longer time on cardiopulmonary bypass, which is a well-known independent risk factor for postoperative mortality, morbidity, and right heart failure in cardiac surgery³; therefore, additional procedures in this case would have increased surgical risk with an unclear clinical benefit. The anatomical variability of these patients makes an individual case evaluation mandatory and general messages not useful.

We agree that ventricular assist devices in patients with restrictive physiology should be performed in high-volume centers; at this moment in Spain there are no hospitals that meet these criteria but we have patients who need treatment. The rarity and complexity of a patient like the one we present make “safe options” difficult to find. What this patient needed was an option

and now he is on the transplant list after normalization of pulmonary pressures.

CONFLICTS OF INTEREST

S. Schueler has received consulting and proctor honorarium from HeartWare Inc.

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Initiatives to Achieve Excellence in the Care of Acute Coronary Syndrome



Iniciativas para conseguir una atención excelente en el síndrome coronario agudo

To the Editor,

We read with interest the article by de Lorenzo-Pinto et al.¹ reporting a program to reduce bleeding in acute coronary syndrome patients. We would like to congratulate the authors for their initiative, which, through proper use of the extensive battery of antithrombotic therapies, will help to improve the care of patients with a highly prevalent and complex condition that represents a substantial part of our activity.

The introduction of coronary units, improvements in antithrombotic therapy, and the use of interventional procedures in the acute phase has helped to produce a spectacular improvement in the care of coronary patients. This is particularly evident in the decreased 30-day mortality rate, which, in the case of ST-elevation acute coronary syndromes, dropped from 16.6% in 1978 to 4.7% in 2007.²

Nonetheless, despite these advances, programs such as the one reported by Lorenzo-Pinto et al.¹ show that the task is not over and there is still room for improvement to reach desirable results. The program described by these authors can be added to 2 other initiatives also aimed at improving care, which could be complementary. One of them has not been tested in Spain and the other, in our opinion, could be further perfected. The first involves the recently described programs to effectively reduce readmission rates following percutaneous revascularization. The incidence of repeat hospitalizations is around 15% in the first month and these are rarely due to a procedure-related problem or an acute coronary syndrome.^{3,4} The second is the RECALCAR project, launched in Spain in 2011 with the aim of gaining

information related to the infrastructure and results of cardiology units within the Spanish health care system. This initiative should be applauded because of its aim of improving knowledge about our activity, but we believe that it could and should undergo some changes. The origin of the data is 2-fold: first, the department heads provide data about the infrastructure and activity of each cardiology unit recorded for a particular year, and second, the outcome data are obtained from the Minimum Basic Data Set of the Ministry of Health, Social Services and Equality, derived from the coded discharge reports of the previous year.

Since its inception, this structure has received criticism, as errors in the coding and administrative processes have resulted in complaints from some of the participating centers. This same road was travelled by the New York system and led to a temporary interruption until the current modification was applied, in which the data are based on individual risk, estimated through the use of risk scales. The scores on these scales are recorded by the physician at the time of the procedure, and the accuracy of the data is verified by strict external auditing through random selection of the patients' clinical records, with consequences for both the center and the physician if there are errors.⁵ Following the use of this model, there was a 41% decrease in mortality from 1989 to 1992. Furthermore, since 1992 the data per each physician and center have been published online so that patients can check them and choose a physician according to outcomes. Although it may seem distant or utopian, achieving this level of transparency in the results for centers and physicians in our setting would be a resounding success. In this line, the Spanish Society of Cardiology has launched an effort to monitor quality indicators and improve the results in individual centers.⁶

It is likely that there will be the usual impediment, a lack of infrastructure to carry out this activity, but our current mission is to demonstrate its effectiveness. In this way, the administration