



Treatment of Heart Failure by Using Catheter-Based Management

Javier H Jaimez *

Department Cardiology, Lozano Blesa University, Zaragoza, Spain

DESCRIPTION

Clinical outcomes are improved and mortality is decreased in this population as a result of pharmacologic developments, such as triple treatment for Heart Failure (HF) with Reduced Ejection Fraction (HFrEF). In individuals with heart failure with Preserved Ejection Fraction (HFpEF), early decompensated HF is unresponsive to medication, and severe HF needs sophisticated treatments. A frequent procedure used to identify or treat a range of heart conditions is cardiac catheterization. For instance, if you experience arrhythmias (irregular heartbeats), angina (chest discomfort), or cardiac valve issues, your doctor could advise this operation. Both in acute and chronic situations, device treatment for severe heart failure have proven effective. Recent advancements in percutaneous technology have established the specialty of "interventional HF," which offers doctors a range of nonsurgical mechanical circulatory support-focused treatment options for acute decompensated heart failure. Other structural-based treatments focus on the underlying causes of functional mitral regurgitation, ischemic cardiomyopathy, and elevated neurohumoral activity in order to address the pathophysiology of chronic HF. Devices for remote hemodynamic monitoring have also demonstrated effectiveness in the ambulatory treatment of HF.

For patients with HF, hemodynamic remote monitoring has become more popular in an effort to reduce hospitalization rates. When compared to thoracic impedance-based implanted devices, Pulmonary Artery (PA) pressure monitoring devices may demonstrate an advantage in lowering HF hospitalizations. In meta-analyses of reduce-HF and compass-HF, the Chronicle device (Medtronic, Fridley, Minnesota) shown improved overall results. It is an implanted cardiac defibrillator with an extra right ventricular lead used to assess changes in right ventricular pressure. These trials lacked the statistical power to identify mortality benefits, and it is hoped that the ongoing guide-HF study will shed additional light on the advantages of PA pressure monitoring in HF.

Transcatheter mitral valve repair-The MitraClip has been demonstrated to enhance quality of life and reduce mortality in

patients with dilated cardiomyopathy and secondary mitral regurgitation (MR). The MitraClip device is now authorized for moderate-to-severe secondary MR caused by HF, in addition to the initial FDA authorization for primary MR in patients at prohibitive surgical risk. However, although being successful in lessening the severity of MR, a second randomized controlled study (MITRA-FR) that examined MitraClip for secondary MR did not provide the same clinical outcomes advantage. In comparison to patients in MITRA FR, patients in COAPT reported more severe HF symptoms that were resistant to medical treatment, less Left Ventricular (LV) dilatation, and a higher degree of MR.

Interatrial shunt-To reduce left atrial pressure, a major factor in the symptoms of HF getting worse, interatrial shunts are made between the left and right atria. Several gadgets are currently being investigated. After a typical trans-septal puncture, the InterAtrial Shunt Device (IASD, Corvia Medical, and Tewksbury, MA) is implanted.

Therapy for left ventricular remodeling-A pathologic increase in LV volume and a decrease in LV ejection fraction are the outcomes of post Myocardial Infarction (MI) Remodeling (EF). A research tool called the Revivent TC System offers a cutting-edge transcatheter method for reconstructing the Left Ventricle (LV) by plicating and excluding the fibrous scar to restore LV function.

Intra-aortic balloon pump-Despite being used extensively in Cardiogenic Shock (CS) for many years, the role of the Intra-Aortic Balloon Pump (IABP) has not been specifically outlined in RCTs. The IABP-SHOCK II experiment, the only large scale randomized investigation using IABP, failed to demonstrate a significant advantage of IABP treatment in CS caused by acute MI. Therefore, it is unknown how IABP will be used to treat either acute or chronic HF made worse by CS.

Micro-axial circulatory support-Long-term left ventricular device installation, cardiac function recovery, or transplantation is all being bridged by acute mechanical circulatory support for CS. Furthermore, difficult, high risk coronary procedures are performed with the use of acute percutaneous mechanical assistance.

Correspondence to: Javier H Jaimez, Department Cardiology, Lozano Blesa University, Zaragoza, Spain, E-mail: jjaimenz@gmail.com

Received: 04-Jul-2022, Manuscript No. CPO-22-17633; **Editor assigned:** 07-Jul-2022, PreQC No. CPO-22-17633 (PQ); **Reviewed:** 21-Jul-2022, QC No. CPO-22-17633; **Revised:** 28-Jul-2022, Manuscript No. CPO-22-17633 (R); **Published:** 04-Aug-2022, DOI: 10.35248/2329-6607.22.11.296

Citation: Jaimez JH (2022) Treatment of Heart Failure by Using Catheter-Based Management. Cardiovasc Pharm. 11:296

Copyright: © 2022 Jaimez JH. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.