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The Need for Palliative Care in the Management of Heart Failure: A Case Report of Advanced Heart Failure Refractory

Dr. Jhan Sebastian Saavedra Torres*[1], Dr. Nelson Adolfo López Garzón[2], Dra. Maira Alejandra Guayambuco Medina[3], Dr. Nataly Vanesa Pérez Martínez[4], Dra. Leidy Diana Imbachi Imbachi[5], Dr. Marco Antonio Medina Ortega[6]

[1] Médico General, M.Sc en Cuidados paliativos- Universidad de Nebrija (Madrid- España). Residente de Medicina Familiar – Departamento de Clínicas Médicas- Pontificia Universidad Javeriana, Cali - Colombia.

[2] Cardiólogo, Internista, Investigador de Fisiología y Patología Cardíaca. Profesor Titular, Departamento de Medicina Interna Facultad de Ciencias de la Salud Universidad del Cauca-Colombia.

[3] Médico General, Residente de Medicina Familiar – Pontificia Universidad Javeriana, Colombia. Departamento de Clínicas Médicas- Afiliados al programa Reanimación Cardiopulmonar básico de la American Heart Association- Estados Unidos.

[4] Médico General, Universidad Cooperativa de Colombia, Medellín, Antioquia. Departamento de Clínicas Médicas- Servicio urgencias Clínica Los Rosales de Pereira, Risaralda.

[5] Médico General. Universidad Santiago de Cali. Departamento de Urgencias, Hospital San Juan de DIOS, Cali- Colombia.

[6] Especialista en Cirugía General, Médico General de la Universidad del Cauca -- Colombia. Docente Universidad del Cauca de la catedra cuidados generales y neurológicos del paciente en pos operatorio.

ABSTRACT

Palliative care is increasingly acknowledged as beneficial in supporting patients and families affected by heart failure, but policy documents have generally focused on the chronic form of this disease. Heart failure results from a diverse range of etiological cardiovascular conditions causing a spectrum of systolic and diastolic dysfunction, often mediated by disparate patterns of ventricular remodeling. We present the case of an elderly patient who, after the diagnosis of pump failure through follow-up, palliative care support was determined by the family medicine specialist, reaching optimal end-of-life results, accepting that there is emotional improvement in his hospitalization.

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CASE PRESENTATION

The patient was a 65-year-old man diagnosed with dilated cardiomyopathy in 2016. He was admitted for worsening heart failure in January 2023 and became dependent on intravenous infusion of inotropic agents. However, he is a street dweller, without financial resources, without family support, who has no health services. Upon admission, serum creatinine was 1.6 mg/dl (normal value 0.65-1.07), blood count with hemoglobin at 10 mg/dl, total bilirubin was 1.7 mg/dl (0.4 -1.5) and plasma B-type natriuretic peptide (BNP) was 980 pg/ml (<18.4). Transthoracic echocardiography showed a left ventricular ejection fraction of 24%, with severe functional mitral regurgitation due to enlargement of the left ventricle. During the 2 months of hospitalization, his hemodynamics were relatively static with continuous bed rest and inotropic agents. Catheter ablation was not performed given his too remodelled left atrium. He could not be a candidate for ventricular assist device (VAD) therapy given that he was too old to be listed for heart transplantation.

Second level health services with few resources and little economic support to improve the quality of care. His hemodynamics deteriorated despite optimal medical therapy including intravenous catecholamines after de novo atrial fibrillation refractory to repeated electrical defibrillation, which was ultimately managed by administration of a calcium channel blocker. Referral to a higher care facility was not achieved.

The reason for non-acceptance is that palliative care is required and the patient was in total abandonment. The role of the family doctor in palliative care was included in the center of care, generating strict monitoring.

There is no pain, there is good religious accompaniment, and the symptoms of dyspnea and fatigue prevail with good adaptation to the follow-up of the family doctor in palliative care. After 2 months, the patient died from an ischemic cerebrovascular accident in the territory of the middle cerebral artery.

Palliative care through family medicine was timely and had good results in his state of mind and acceptance of the end of life during his hospitalization.

DISCUSSION: Barriers to palliative care

The cultural and social barriers, such as beliefs about death and dying; misconceptions about palliative care, such as that it is only for patients with cancer, or for the last weeks of life; and. misconceptions that improving access to opioid analgesia will lead to increased substance abuse. While palliative care is likely to become mainstream practice, it will be slow to reach certain patients and families who could benefit from it (1,2).

One barrier is the strong bias of the healthcare system towards curative medicine, with financial incentives that encourage provision of aggressive treatment. Rural and urban areas with a generally poor healthcare infrastructure will tend to fare worst in relation to palliative care (3,4).

DISCUSSION: Advanced heart failure in palliative care

Advanced heart failure (HF) occurs when patients with HF experience persistent severe symptoms that interfere with daily life despite maximum tolerated evidence-based medical therapy. Advanced heart failure (HF) is a disease process that carries a high burden of symptoms, suffering, and death. Palliative care can complement traditional care to improve symptom amelioration, patient-caregiver communication, emotional support, and medical decision making (5–7).

More than 20% of HF patients suffer from depression. Abundant evidence demonstrates a strong relationship between depression and HF. The impact of co-morbid depression during the index hospitalization on significantly increased mortality of chronic heart failure patients is strong and persists over 12 years (1,2,7). These patients experience 2 to 3-times higher morbidity and mortality in the years following depression detection than their non-depressed counterparts.

Patients with advanced heart failure have high levels of depression and feelings of fatigue. They describe a lack of hope because they do not understand their pathology (2,8). These findings suggest that more investigation is needed to understand the trajectory of depression and the mechanisms underlying the impact of depression as well as to identify effective management strategies for depression of patients with HF (5,6).

Inpatient Specialist Palliative Care in patients with left ventricular assist devices (LVAD):

To identify management options in inotrope-dependent advanced heart failure patient without indication of left ventricular assist device (LVAD) (9,10). In patients with advanced HF, VAD therapy would be the best strategy, irrespective of the existence of mitral regurgitation (5,9,10).

Repeat hospitalizations, complications, and psychosocial burdens are common in patients with left ventricular assist devices (5,9,10). Specialist palliative care involvement supports patients during decision-making until end-of-life. In the United States, guidelines recommend early specialist palliative care involvement prior to implantation. Yet, data about Specialist palliative care and Specialist palliative care involvement in Europe are scarce (9,10).

Palliative care involvement may facilitate clarification of goals of care or symptom management after device withdrawal, but hospice care may present significant difficulties to heart failure patients with these devices (2,5).

Three-year mortality in heart failure patients.

Left ventricular ejection fraction is a predictor of the outcome in patients with chronic heart failure. Some treatments cause a small increase in ejection fraction and may, thereby, improve prognosis. Individuals with heart failure with left ventricular ejection fraction less than 30% have a high recurrence of emergency room visits(11,12). If it drops too low, to 35% or below, a higher risk of a possibly life-threatening heart rhythm(11).

Three-year survival is low when ejection fraction is very low. However, once the ejection fraction is < or =20% ejection fraction is no longer a predictor of mortality (11,12).

Learning points:

As with chronic Advanced heart failure, providing Palliative care to those with acute heart failure presents challenges and opportunities. All along the spectrum of community engagement, public health palliative care approaches have been found to improve outcomes for both people with life-limiting illness and their carers, including improving quality of life, reducing fatigue and isolation, and increasing the size of caring networks.

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