

XI Reunión. Estado del Arte en
INSUFICIENCIA CARDIACA

PRÁCTICA CLÍNICA Y MODELOS ORGANIZATIVOS

Sede: Hotel Meliá MaríaPita, A Coruña

A CORUÑA 27-28 SEPTIEMBRE 2024



XI Meeting. State of the Art in
HEART FAILURE

CLINICAL PRACTICE AND ORGANIZATIONAL MODELS

Venue: Hotel Meliá MaríaPita, A Coruña

#ACoruñaHF2024

A CORUÑA 27-28 SEPTEMBER 2024

Clinical Case. Is it possible to reverse advanced HF stage without HF therapies?

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Clinical Case: background

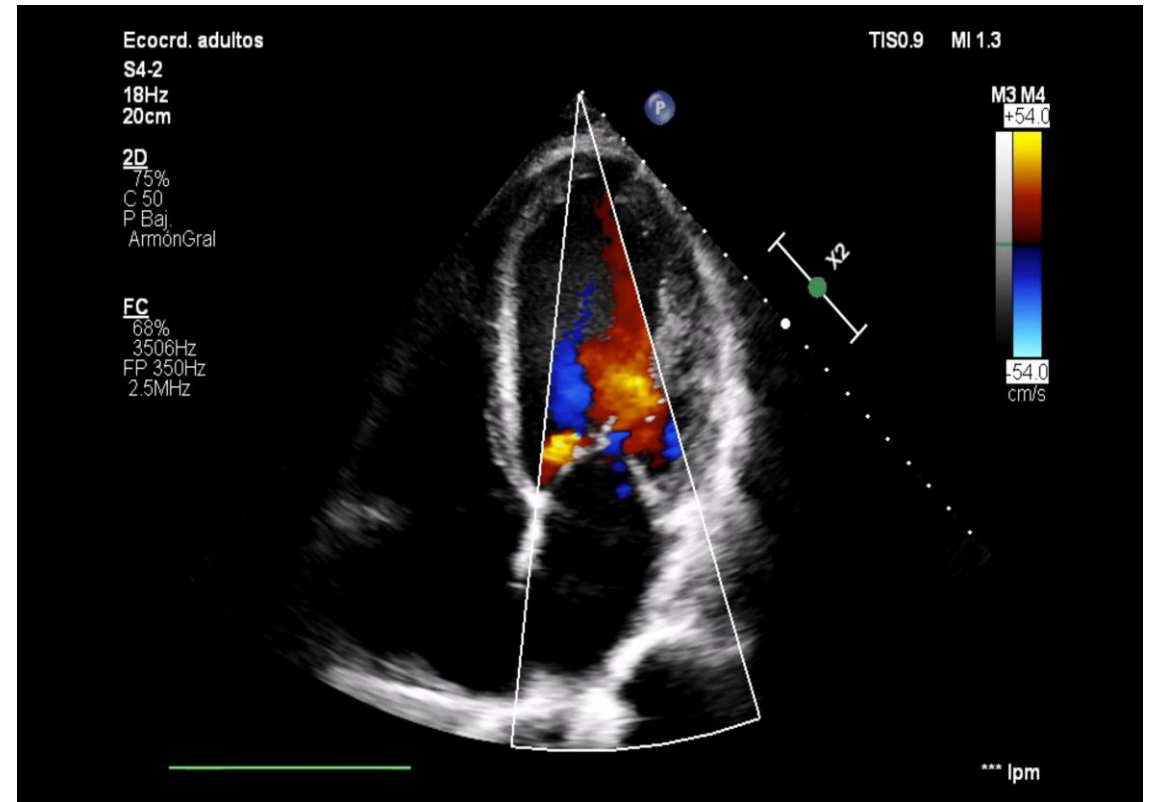
- **Mr López, 69 Yo, referred to our center for Mitral valve TEER.**
- HT, HL, Obesity (weight: 98kg / BMI 37 in April 2022).
- Cardiac history:
 - Paroxysmal AF. LVEF 57% (2019).
 - Admitted for AHF (Aug 2022). AF with RVR. Echo: LVEF 32% - global hypokinesia -.
 - Admitted for AHF (Sept 2022). CAG: LM 50%, LADm 70%, LCXp 80%, RCAAd 90%. **CABG** (BIMA).
 - 4 admissions for acute HF in 2023. **AF permanent**. Echo Aug: LVEF 22%, severe functional MR, TAPSE 17mm.
 - Received **levosimendan** every 15 days since Aug 2023 (4 cycles).
- Comorbidity: CKD Stage IIIa (eGFR 57), OSA (CPAP).
- Medications: Apixaban 5mg BD, S/V 24/26mg BD, Eplerenone 25mg OD, Bisoprolol 2,5mg OD, Dapaglifozine 10mg OD, Vericiguat 5mg OD, Rosuvastatin 20mg OD, Furosemide 40mg OD.

Clinical Case: presentation at admission



- **NYHA IV**, decreased appetite, abdominal pain after eating, **severe weight loss**.
- Physical Examination:
 - **BP 85/50 mmHg**; Pulse 124 bpm irregular.
 - Weight 55 Kg (BMI 20,7). **Sarcopenia**.
 - Ortopnea (+), JVD (+), bilateral rales, clammy skin, acral coldness.
- EKG: AF 124 bpm, QRS 126 ms (BRIHH like). PVCs.
- Lab: Hb 11.4 g/dL, Crtn 1.7 mg/dL, Albumin 3,1 g/dL, **NT-proBNP 32267 pg/mL**, Lact 2.4 mmol/L.
- Echo: LVEDD 7.4 cm, LVESD 6.5 cm, **LVEF 18%**, MR 3+, TAPSE 10 mm.

Echo at admission



Clinical Case: "I NEED HELP"

Immediate Treatment --> stop NHB medications and initiate IV Dobutamine + IV Furosemide.

Numerous Markers of Advanced Heart Failure. May be candidate for life-prolonging therapies (HT or LVAD)?

I	Need for inotropes
N	New York Heart Association Class IV
E	Worsening end-organ dysfunction
E	Ejection fraction <20%
D	Defibrillator shocks for ventricular arrhythmias
H	Recurrent HF hospitalizations
E	Escalating diuretic dose
L	Low blood pressure
P	Progressive intolerance of GDMT

- ✓ We initiated the process of patient eligibility for advanced HF therapies.
- ✗ We canceled percutaneous mitral valve intervention (to be re-evaluated).

Clinical Case: inpatient follow-up

Favourable response with IV Dobutamine + IV Furosemide.

✓ **TTE:** mild mitral regurgitation and right ventricular function improvement.

✓ **Right heart catheterization** (on 6th day with dobutamine):

PAP 22/16/18 mmHg

PCWP 8 mmHg

CO 3.32 L/min / CI 2.01 L/min/m²

PVR 2.29 Wood Units

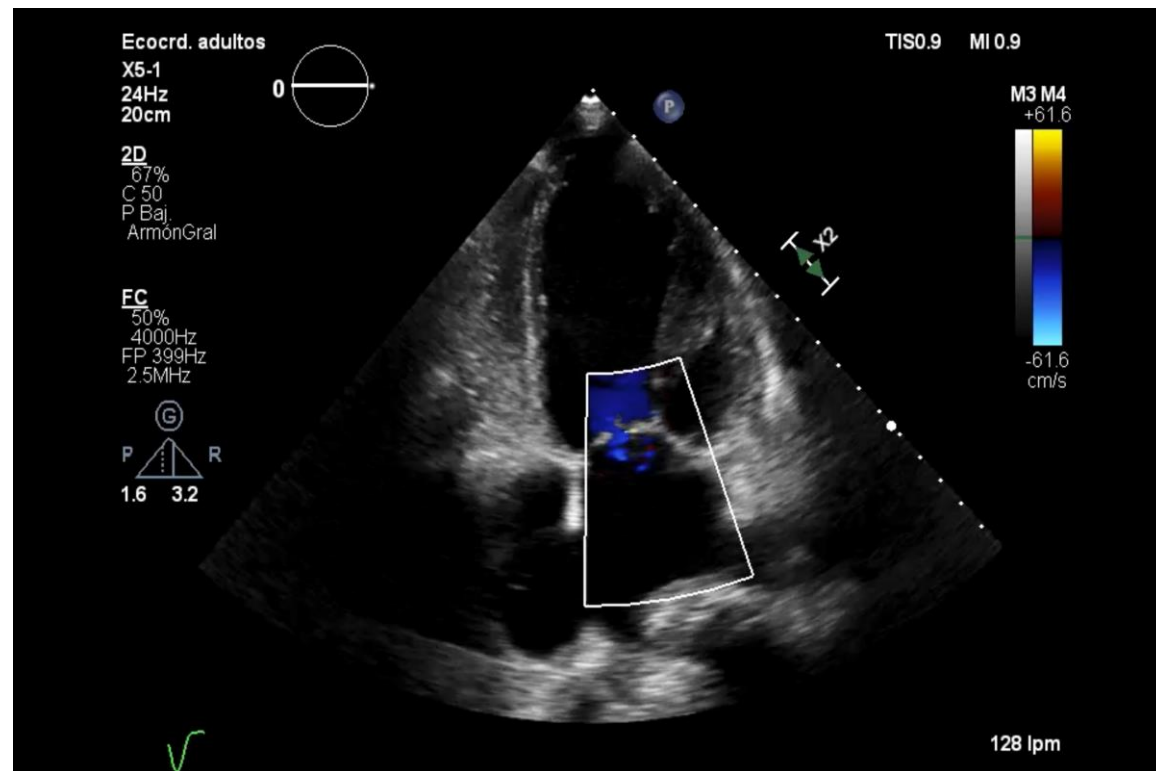
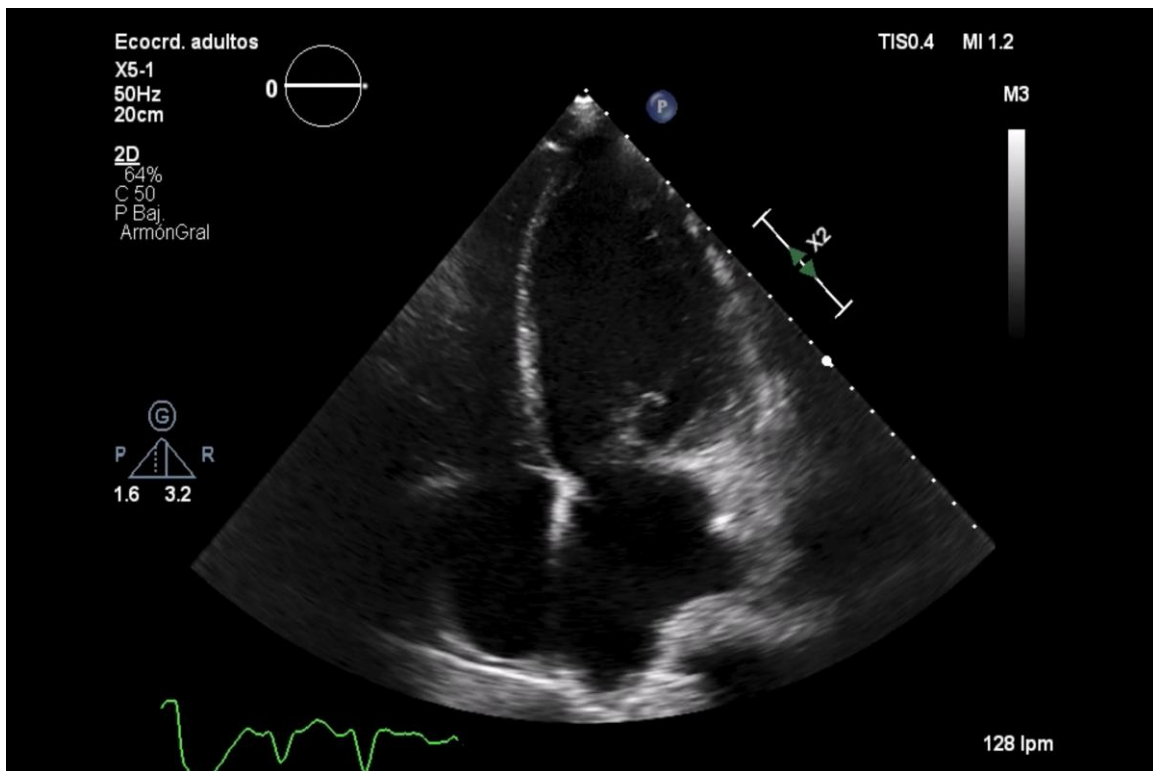
RA 3 mmHg

PAPi 2.1

RA/PCWP 0.38

✓ **Simultaneous CT angiography and whole-body CT:** no arteriopathy or malignant lesions.

Echo after 72h



Clinical Case: inpatient follow-up

📞 We contacted the heart transplant team at the referral hospital.

🕒 Switch to Levosimendan (given for 24 hrs).



Clinical Case: @ heart transplant referral hospital

Complete de process of patient eligibility for cardiac transplantation:

Nutrition Assessment (MNA-SF score 4 / NRI 83):

- Severe malnutrition due to heart failure and dietary restriction.
- Nutricional therapy:
 1. Salt-free diet with the possibility of choosing the menú (improved palatability).
 2. Megestrol acetate (improved appetite).
 3. Oral Nutritional Supplement with β -hydroxy- β -methylbutyrate (HMB).

Frailty Assessment: met criteria of physical frailty. Exercise training program.

Clinical Case: @ heart transplant referral hospital



✦ He was added to the **heart transplant waiting list**.

✦ He was discharged in early November:

➤ Gaining +4kg lean body weight.

➤ Lab: Crtn 1.3 mg/dL (1.7 mg/dL), **NT-proBNP 4145 pg/mL** (32267 pg/mL).

✦ Plan for discharge:

➤ Wearable Cardioverter Defibrillator (*LifeVest*).

➤ Outpatient exercise training plan.

➤ Medications: Dabigatran 110mg BD, Bisoprolol 1,25mg OD, Dapaglifozine 10mg OD, Furosemide 20mg OD, Digoxin 0,125mg OD, Amiodarone 200mg OD, Megestrol acetate 160mg OD, ONS with HMB OD.

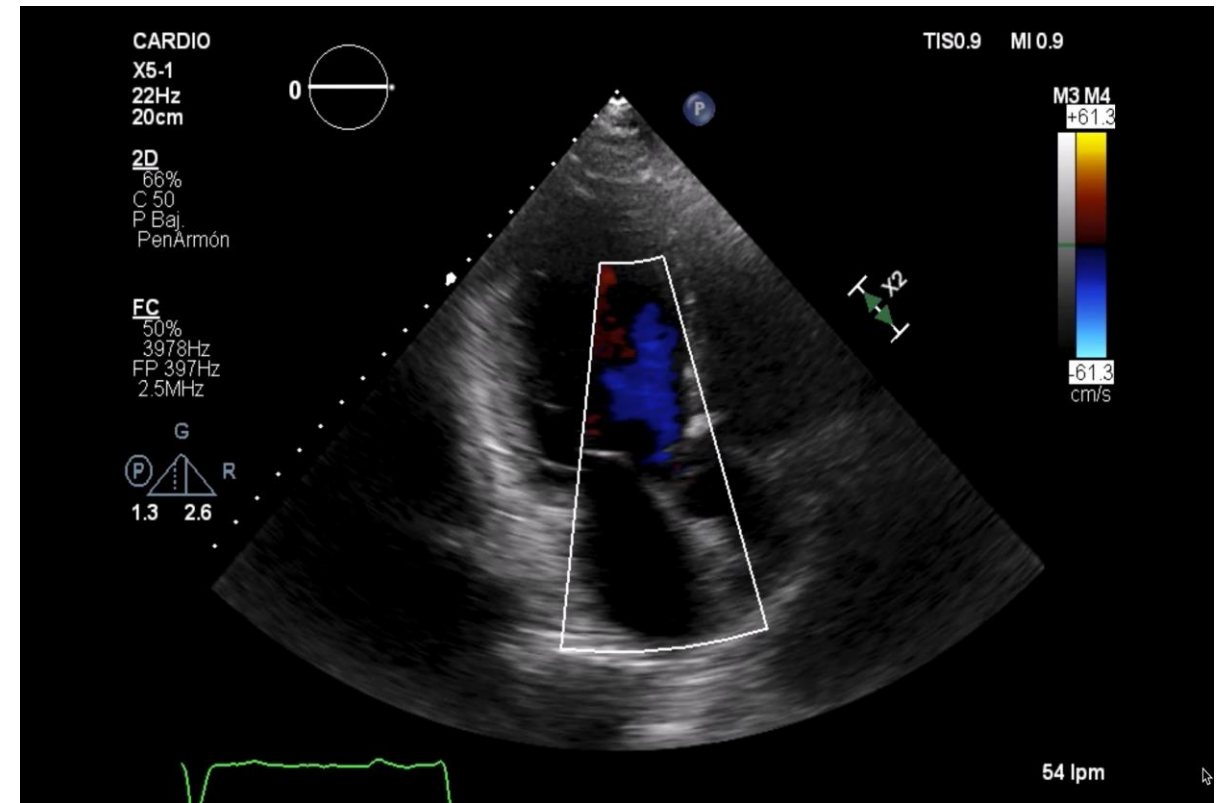
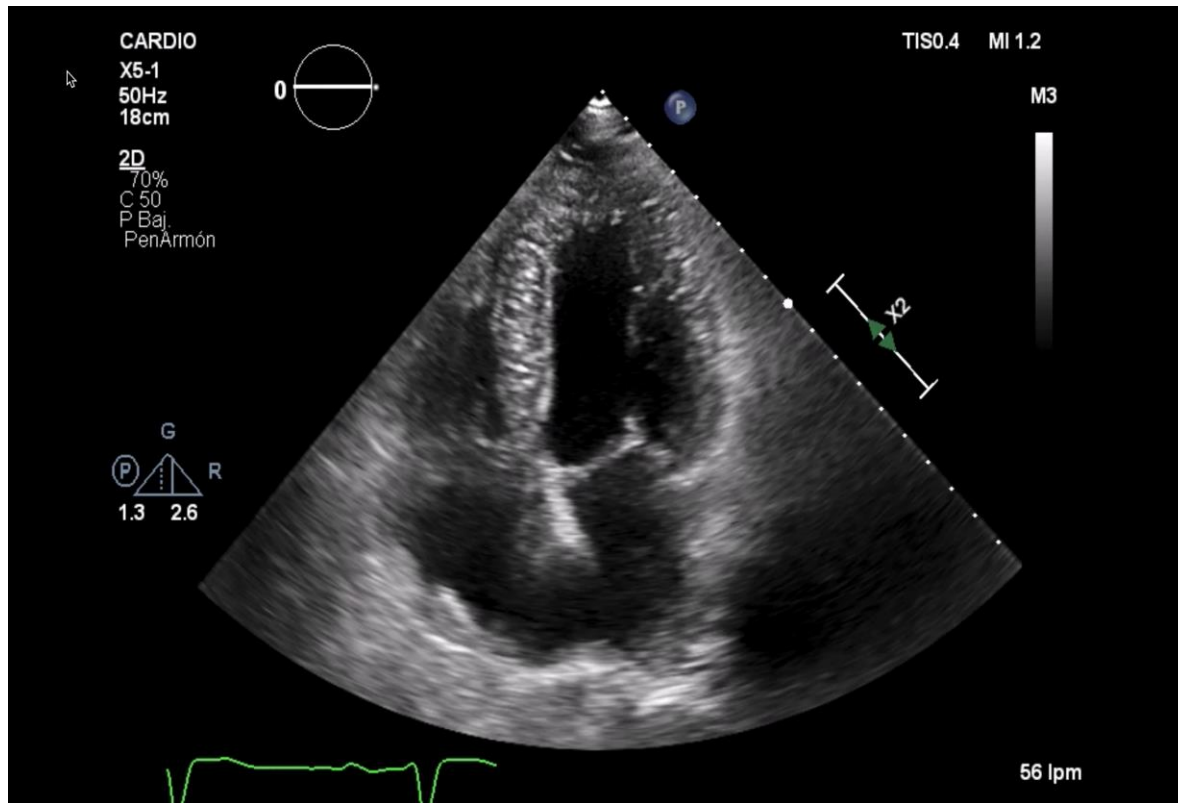
➤ Repetitive ambulatory levosimendan **as a bridge to heart transplantation**.

Clinical Case: outpatient visits

1. (Vigo). **Levosimendan (0.2µg/kg/min-6 h)**. Started on **S/V 24/26 BD**.
2. (A Coruña). Started on **Eplerenona 12,5mg OD**. Spontaneous **SR restoration**.
3. (Vigo). **Levosimendan (0.2µg/kg/min-6 h)**. Stop megestrol acetate (polyuria?).
4. (Vigo). **Levosimendan (0.2µg/kg/min-6 h)**. Increase **S/V 49/51 BD**.
5. (A Coruña). Stop Furosemide. Increase **Eplerenona 25mg OD**.
6. (Vigo). **Last Levosimendan (0.2µg/kg/min-6 h)**. 4th January.
7. (A Coruña). NYHA II. No room for up-titration. NT-proBNP 1580 pg/mL.
8. (A Coruña). NYHA II. No room for up-titration. TTE was requested.



Echo after 6m follow-up



Clinical Case: outpatient visits



- ✓ NYHA II, **Gaining +12kg lean body weight**, no new admissions for HF.
- ✓ BP 100/60 mmHg; Pulse 50 bpm regular; Weight 67 Kg (**BMI 25,2**), NRI 100,8.
- ✓ EKG: **SR 50 bpm**, QRS 130 ms (BRIHH like).
- ✓ Lab: Hb 12.5 g/dL, Crtn 1.39 mg/dL, eGFR 51 ml/min/1.73m², Albumin 3,89 g/dL, **NT-proBNP 732 pg/mL**.
- ✓ Echo: LVEDD 4.4 cm, **LVEF 49%**, AR 1+, TAPSE 20 mm.

👍 **He was removed from the waiting list for a heart transplant.**

👍 **Wearable Cardioverter Defibrillator (*LifeVest*) was removed.**

Key Messages & Key Questions

- ✓ **The value of collaboration** (in a regional network) to improve outcomes in advanced HF.
- ✓ **Multidisciplinary Team Approach** is Paramount on the management of advanced HF.
- ✓ **Malnutrition and Frailty** are common comorbidities in patients with HF associated with **poor prognosis**. Assessment and Treatment, if needed, is mandatory.
- ? Myocardial Revascularization in Ischemic Cardiomyopathy: **for whom, when and how?**
- ? Should a **rhythm control strategy** be considered in advanced HF with AF?
- ? Levosimendan as a **“Bridge to Optimization”**?

Muchas gracias

