IX Congresso
Novas Fronteiras em Medicina Cardiovascular
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The Village Praia D'El Rey - Óbidos

Dealing with controversies

The complexity of the every day HFrEF patient

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Clinical Case

- **Male, 62 years-old**

- **Previous diagnosis**:
  - HTN (amlodipine 5mg q.d.)
  - Type 2 DM (metformin 1000mg b.i.d.)
  - Ex-smoker

  - No significant alcohol consumption
  - No relevant familial history

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  - No relevant familial history
- **May 2018**
  - Dry cough with exertion
  - Shortness of breath with moderate exertion
  - Orthopnea

- **Beginning of June 2018**
  - Hospital admission due to **acute heart failure**
    - NYHA functional class III

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Clinical Case

- **First hospital admission** (other hospital)

- **ECG**:
  - HR: 120 bpm; typical atrial flutter; LBBB (QRS duration ~140 ms)
- **Echocardiography**:
  - Dilated left ventricle with **severely depressed ejection fraction** (~20%)
- **Coronary angiography**:
  - Distal left anterior descending artery severe lesion → **PCI** with DES
  - 2nd Obtuse coronary artery chronic total occlusion (small vessel)

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Clinical Case

- **First hospital admission** (other hospital)

- **Discharge diagnosis**:
  - **Acute heart failure / Heart failure with reduced ejection fraction**
    - NYHA functional class II
  - Typical atrial flutter
  - 2-vessel coronary artery disease
  - **Medication**: ASA 100mg q.d.; clopidogrel 75mg q.d.; apixaban 5mg b.i.d.; carvedilol 6,25mg b.i.d.; enalapril 5mg b.i.d.; furosemide 40mg q.d.; rosuvastatin 20mg q.d.; metformin 1000mg b.i.d.

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Clinical Case

- **During June 2018**
  - **NYHA functional class II → III**

- **End of June 2018**
  - **2nd Hospital admission** due to **acute heart failure** (another hospital)
  - Intravenous loop diuretic
  - Discharge: NYHA functional class II
  - **Medication**: ASA 100mg q.d.; clopidogrel 75mg q.d.; apixaban 5mg b.i.d.; carvedilol 12,5mg b.i.d.; enalapril 10mg b.i.d.; spironolactone 25mg q.d.; furosemide 40mg q.d.; rosuvastatin 20mg q.d.; metformin 1000mg b.i.d.

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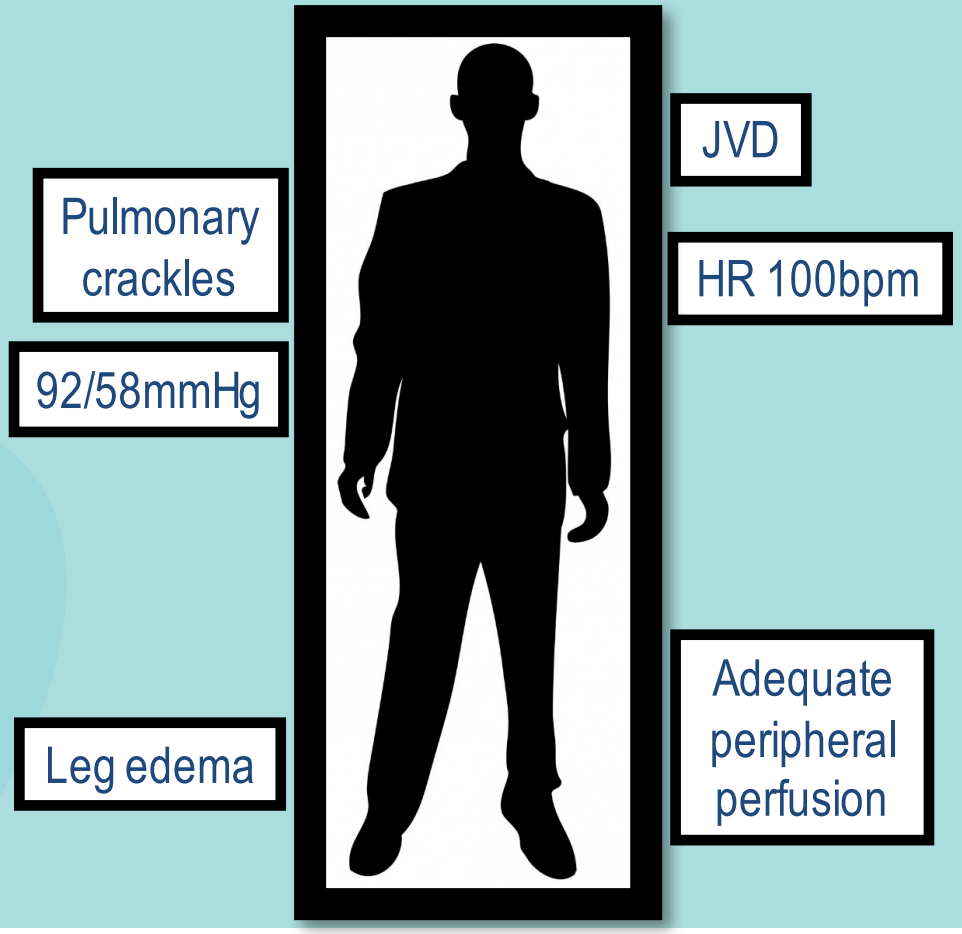
Clinical Case

- **August 2018**
  - **NYHA functional class II → III**
  - Shortness of breath with minimal exertion
  - Orthopnea, PND, lower limb edema

- **3rd Hospital admission** due to **acute heart failure**
  - Cardiology ward



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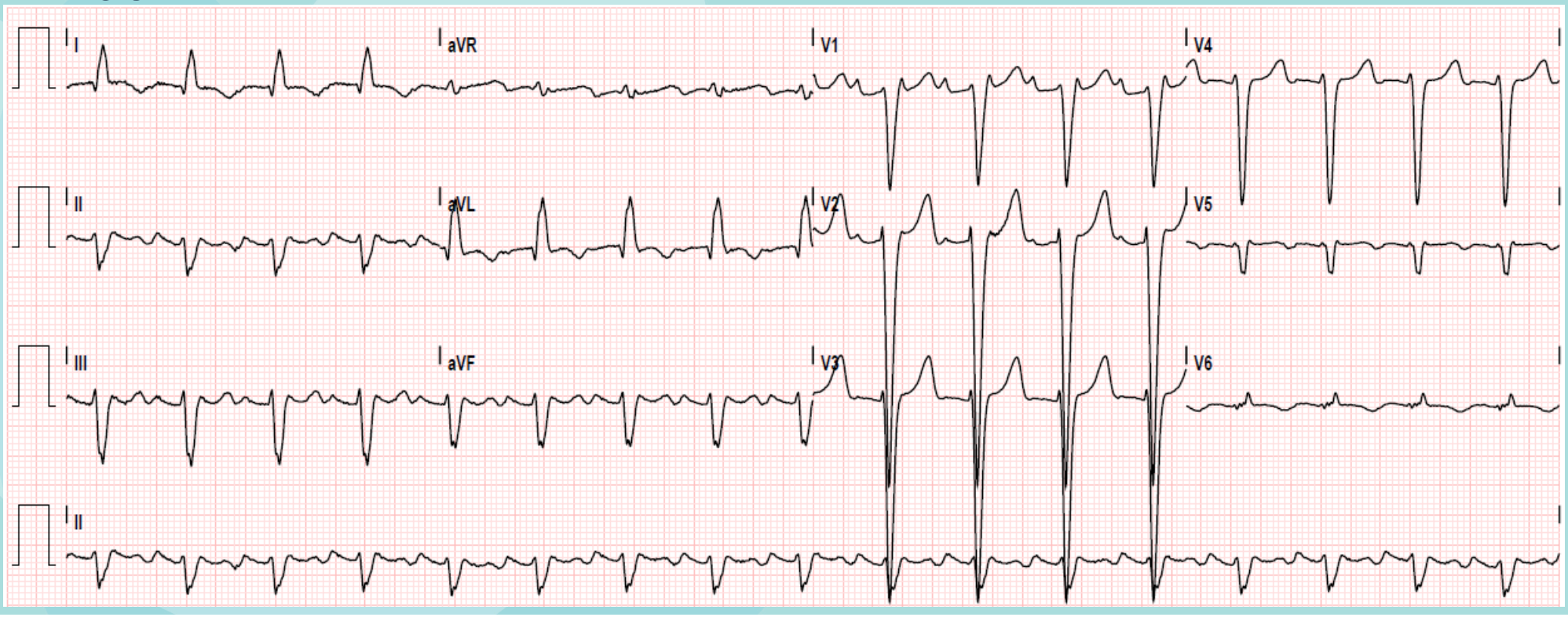
Clinical Case

- ECG



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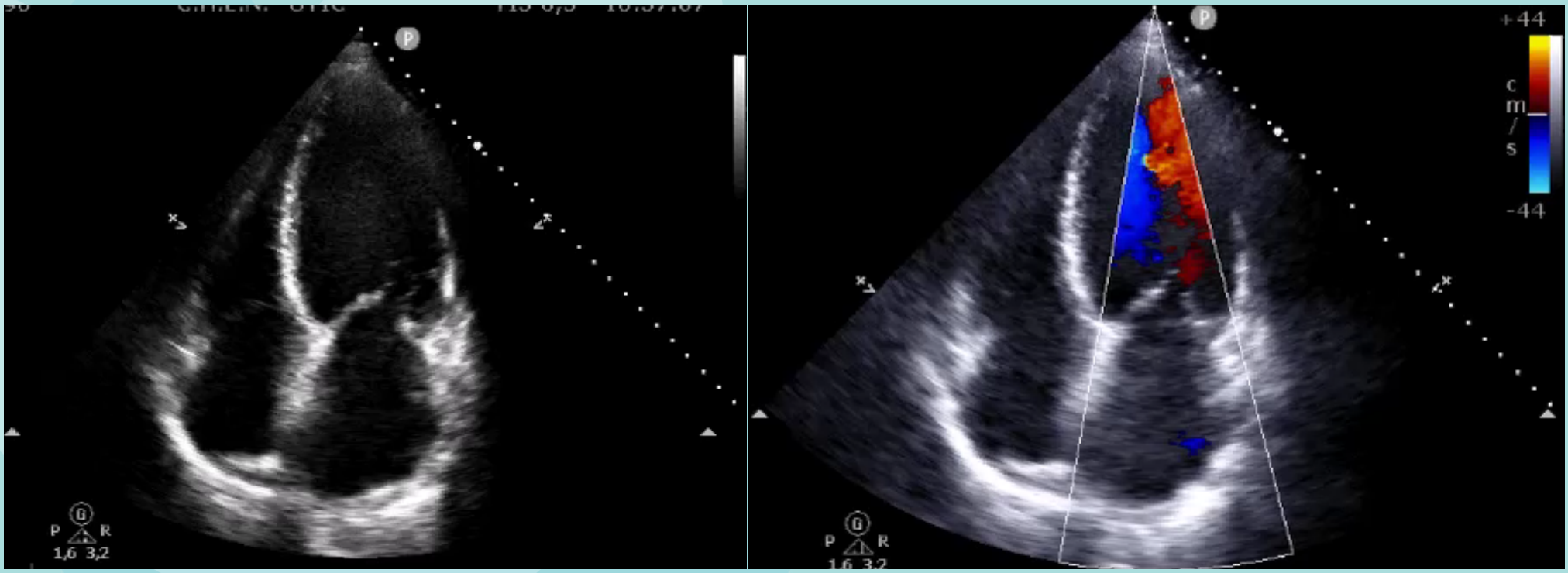
Clinical Case

- **Echocardiography**



Clinical Case

- **Blood tests**

Hb	13.4 g/dL
Htc	37%
Leuc	7.09 x 10^9/L
Neut	4,32 x 10^9/L
Urea	45 mg/dL
sCr	**1.59 mg/dL**
eGFR (CKD-EPI)	**46 mL/min/1.73**
Na^+	136 mmol/L
K^+	3.5 mmol/L

ALT	21 U/L
ALP	70 U/L
GGT	44 U/L
Tot. Bil.	0.66 mg/dL
Fe	41 µg/dL
Transf. Sat.	21%
Ferritin	**264 µg/L**
HbA1c	**6.6%**

TSH	1.36 µU/mL
NT-proBNP	**990 pg/mL**
CRP	0.81 mg/dL
Protein electroph.	Normal
Ca^{2+}	9.1 mmol/L
HIV	Neg.

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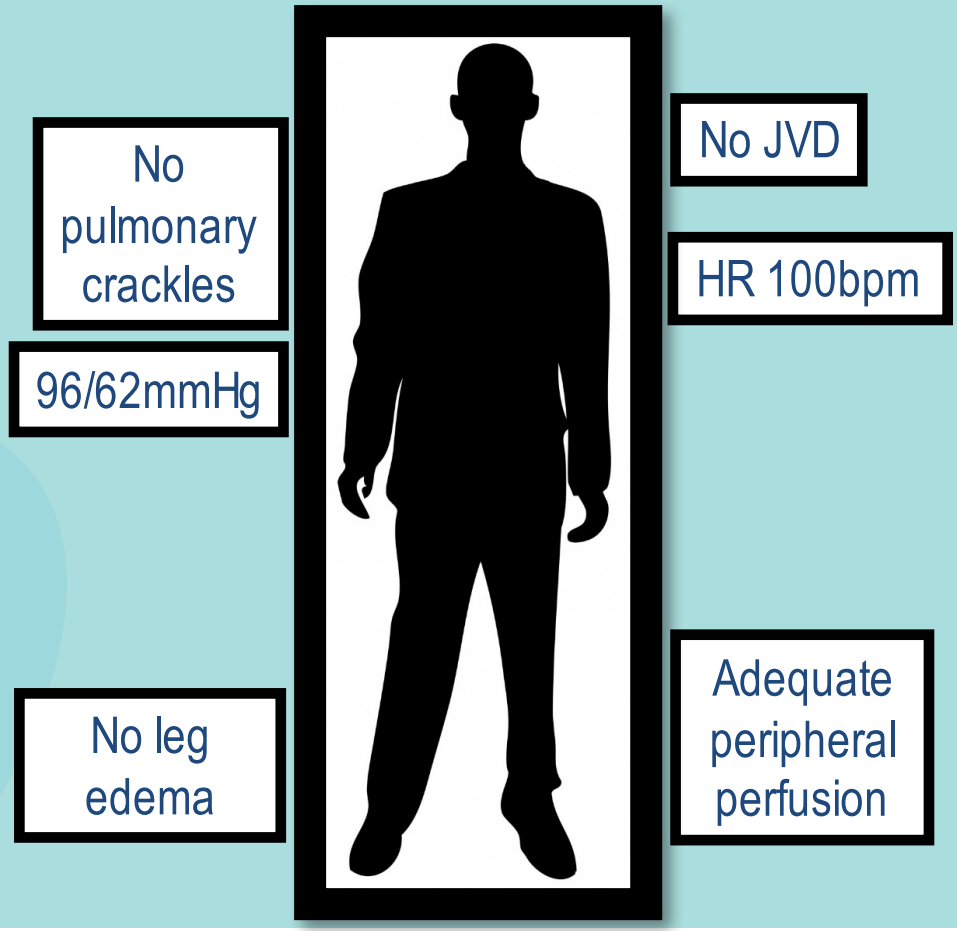
Clinical Case

- **Hospital admission**

- I.V. Loop diuretic ⇨ Torasemide 10mg
- ⇧ Carvedilol 25mg b.i.d.

- **Typical atrial flutter ablation**



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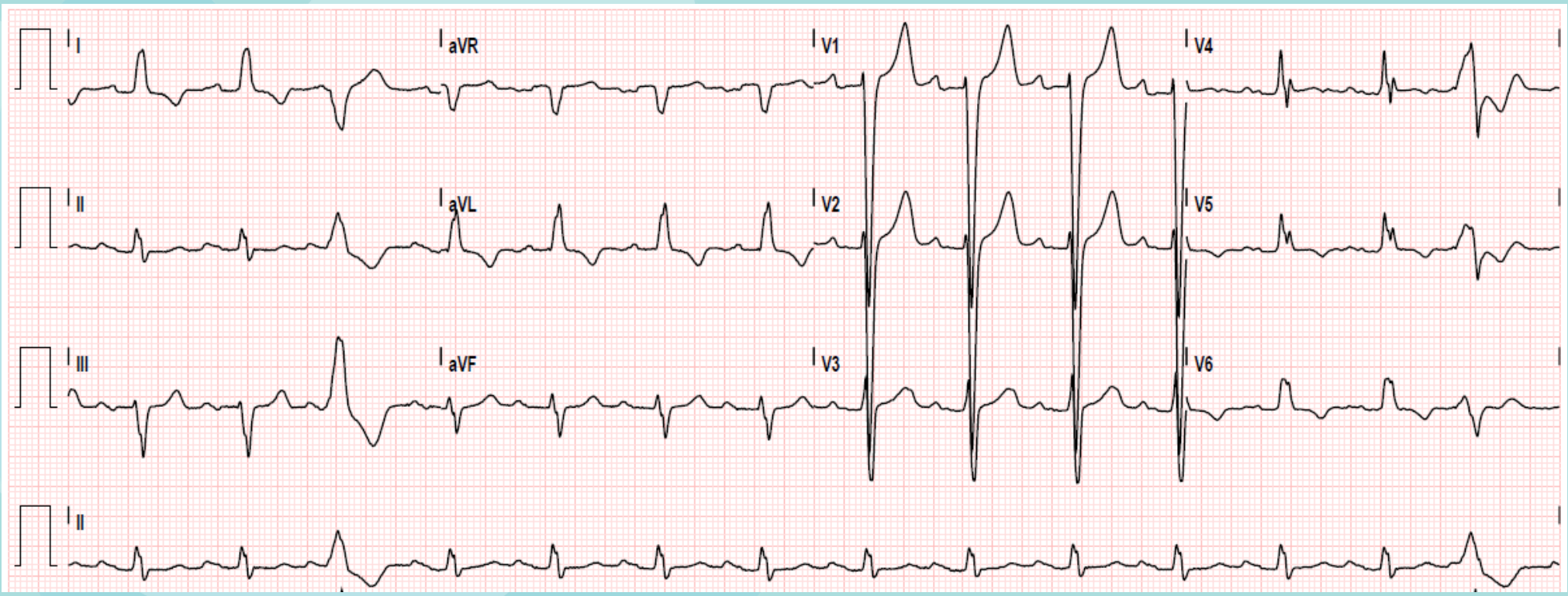
Clinical Case

- **ECG**



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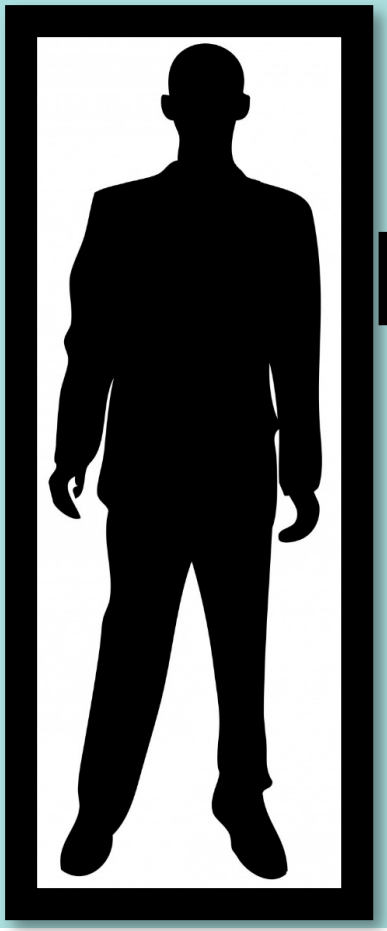
Clinical Case

- **Hospital admission** (10 days)

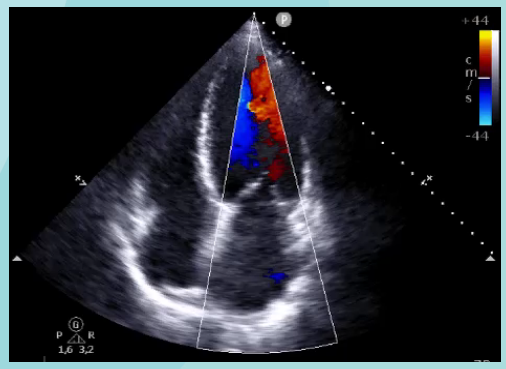
104/60mmHg



HR 85bpm

- NYHA functional class **II**
- Enalapril 10mg b.i.d. ➡ **Sacubitril/Valsartan 24/26mg b.i.d.**
- **Carvedilol / Ivabradine 25/5mg b.i.d.**

NT-proBNP	**301 pg/mL**
sCR	**1.19 mg/dL**
eGFR (CKD-EPI)	**65 mL/min/1.73**
K^+	4.9 mmol/L



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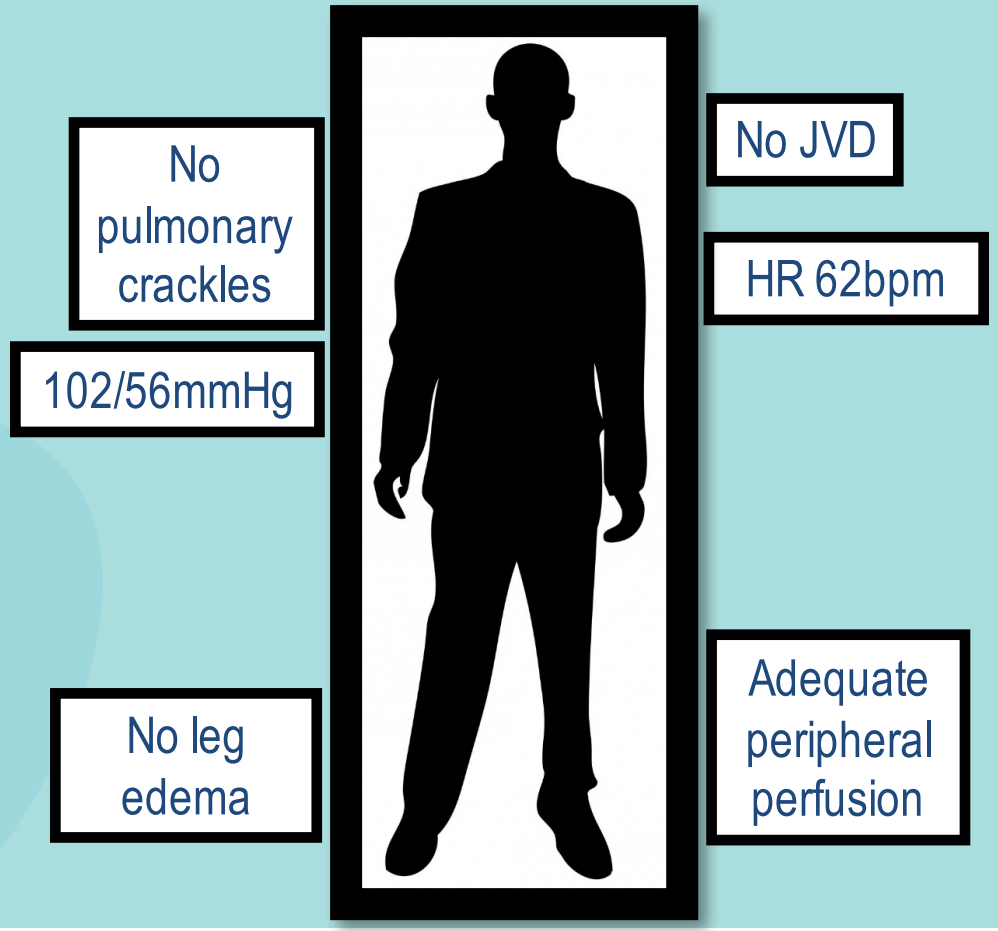
Clinical Case

- **Post-discharge visit**

- NYHA functional class **II**
- ↑ **Sacubitril/Valsartan 49/51mg b.i.d.**

NT-proBNP	**271 pg/mL**
sCR	**1.3 mg/dL**
eGFR (CKD-EPI)	**59 mL/min/1.73**
K^+	4.9 mmol/L



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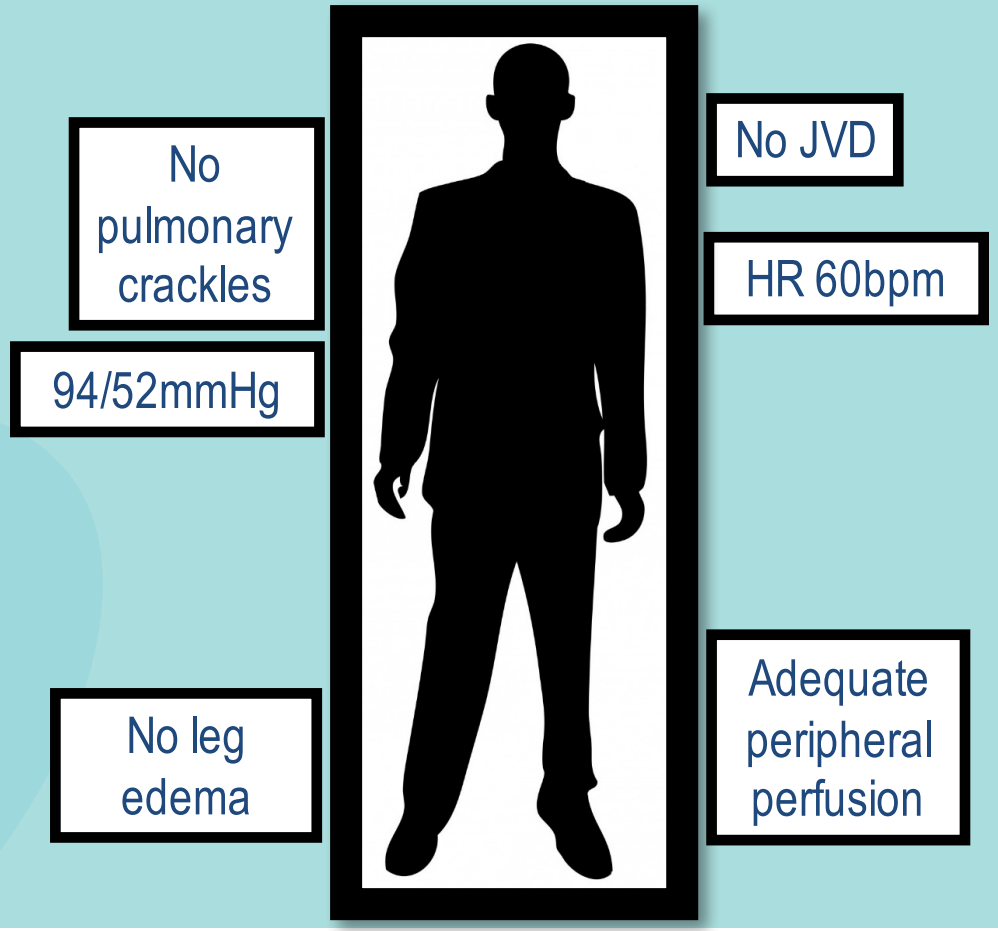
Clinical Case

- **2nd Visit**

- NYHA functional class **II**
- **Continue medication**

NT-proBNP	**290 pg/mL**
sCR	**1.32 mg/dL**
eGFR (CKD-EPI)	**58 mL/min/1.73**
K^+	5.1 mmol/L



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Clinical Case

- **3 Months later…**

- **Cardiac CMR:**
  - Dilated left ventricle with **moderately depressed ejection fraction (33%)**;
  - Distal infero-lateral wall transmural LGE;
  - Slight septal midwall LGE.

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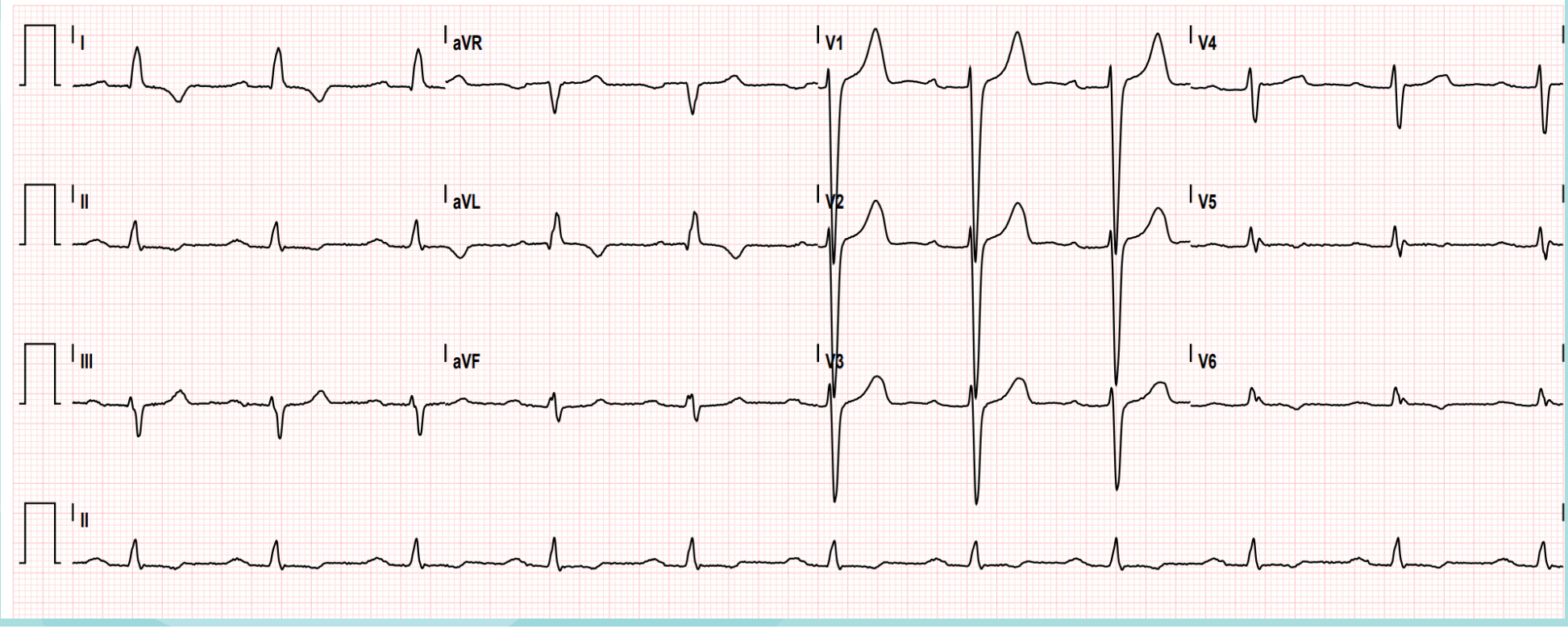
Clinical Case

- ECG



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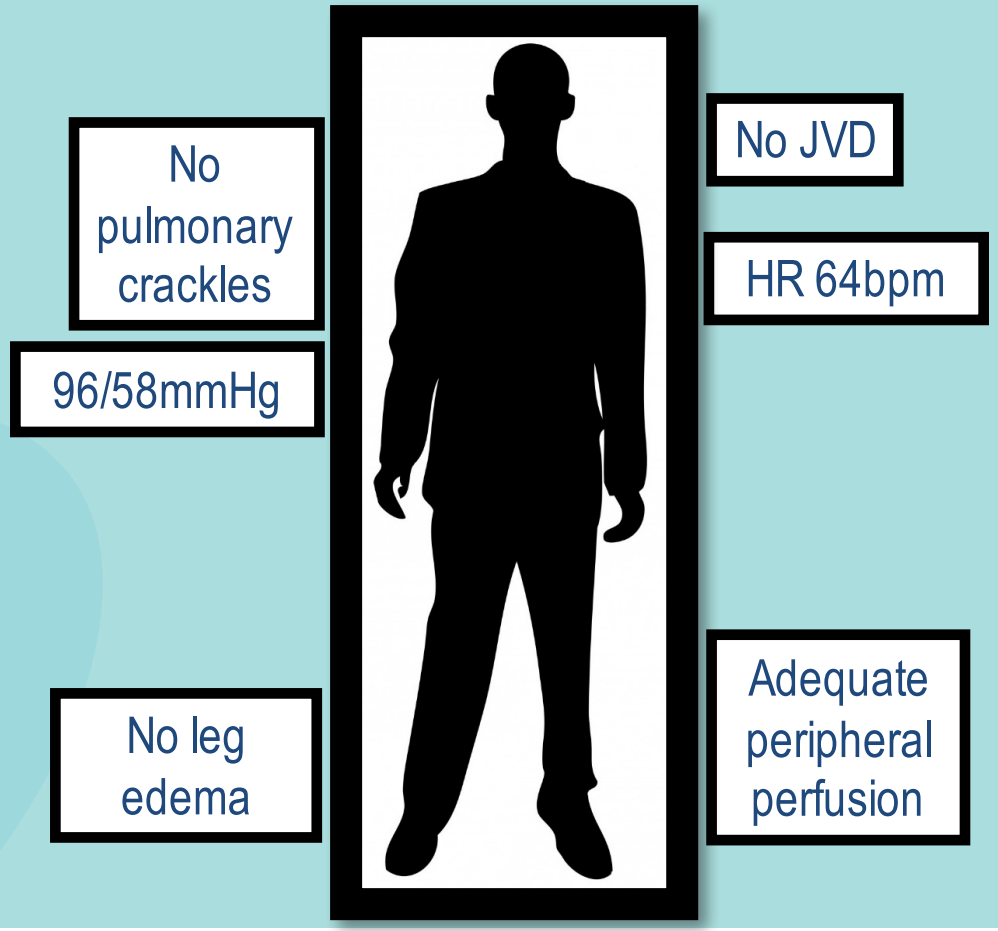
Clinical Case

- **Follow-up visit**

- NYHA functional class **I-II**
- **ICD implant**

NT-proBNP	**326 pg/mL**
sCR	**1.2 mg/dL**
eGFR (CKD-EPI)	**64 mL/min/1.73**
K^+	5.0 mmol/L



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DEPARTAMENTO CORAÇÃO e VASOS
HOSPITAL DE SANTAMARIA
Hospital PulidoValente
FACULDADE DE MEDICINA LISBOA

Thank you for your attention

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