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Insuficiencia cardíaca con fracción de eyección normal: luces y sombras

Miguel Quintana Rendón M.D., Ph.D.
The Karolinska Institute at the Servicio de Cardiología,
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Hospital de Torrevieja

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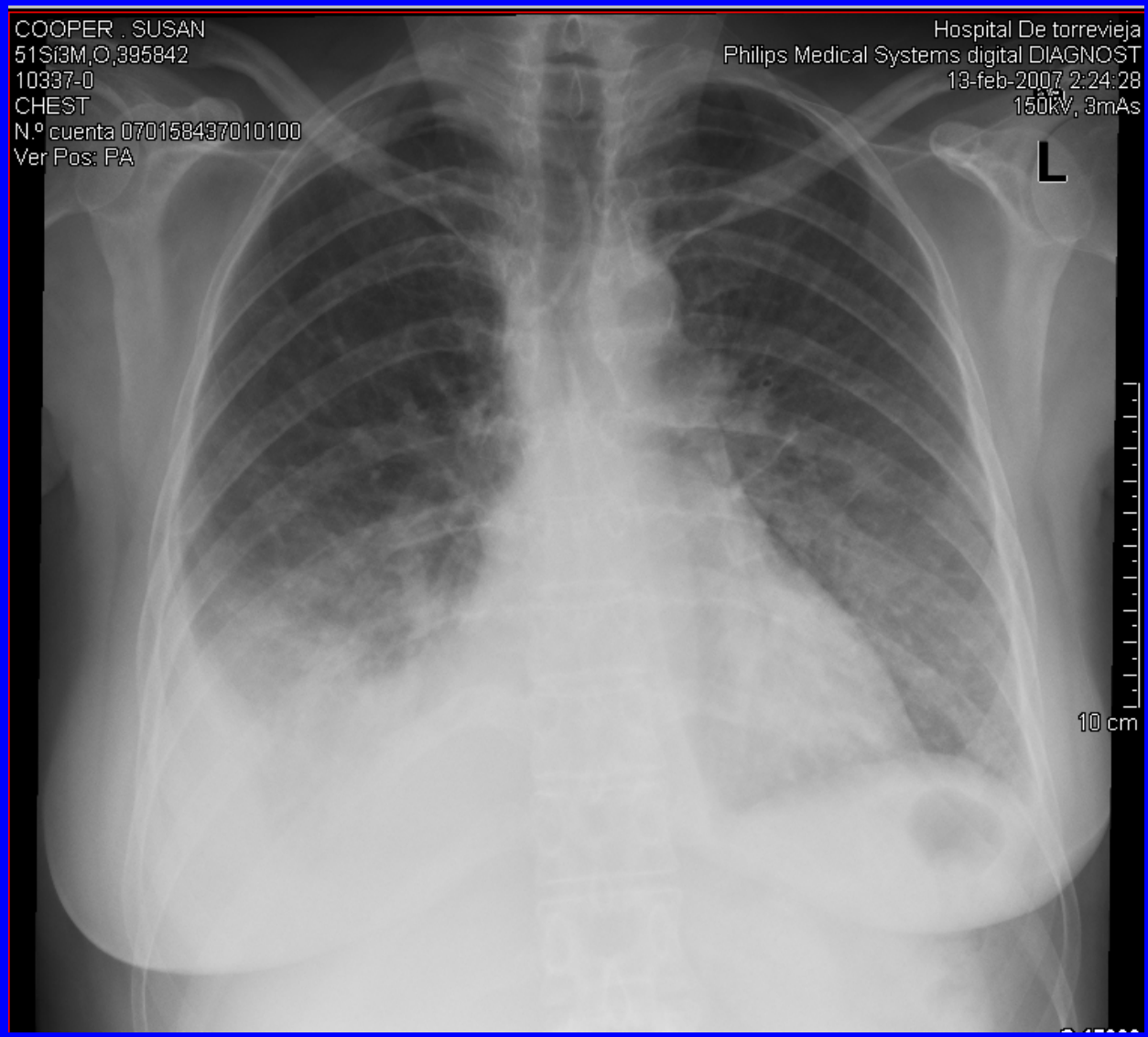

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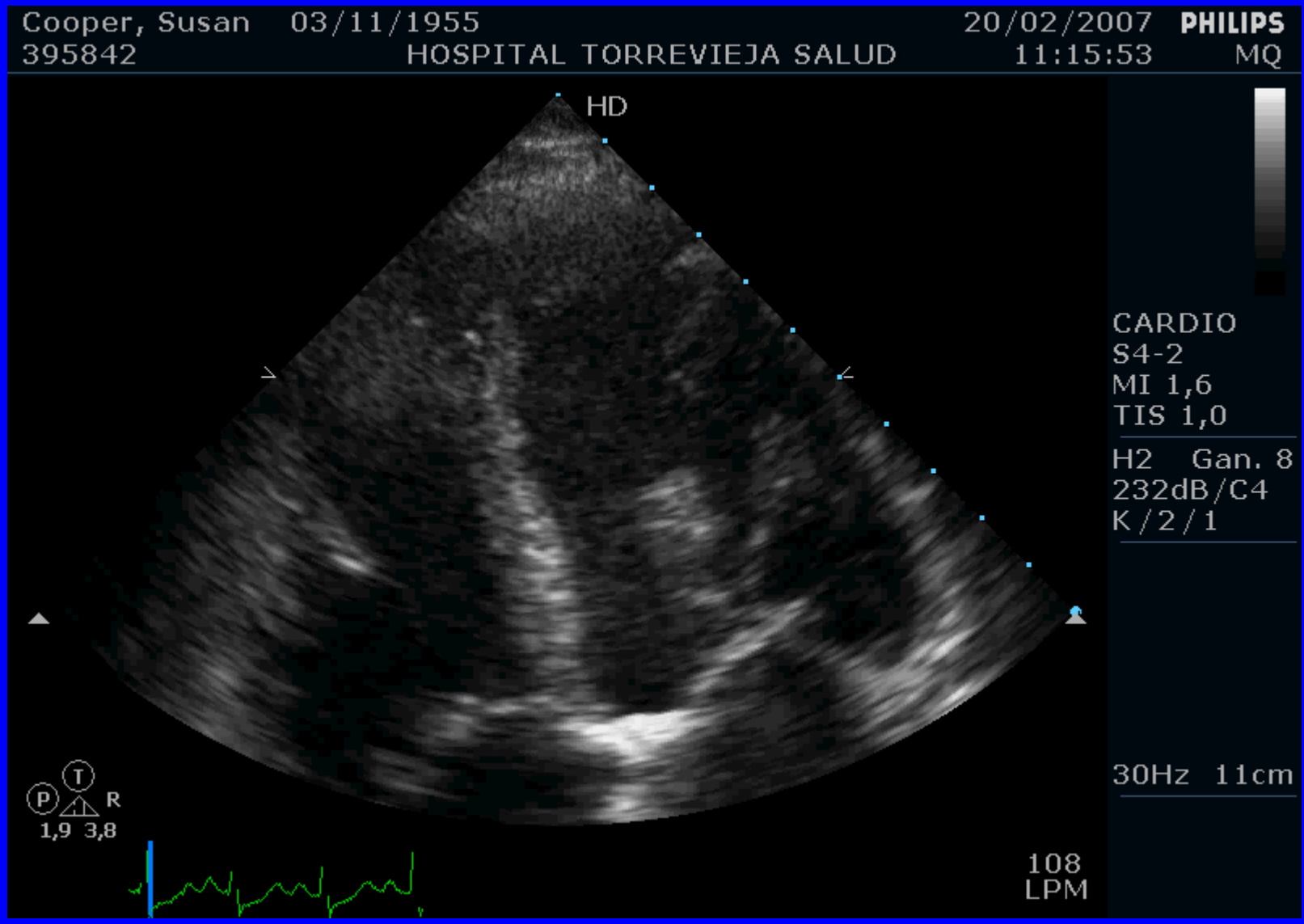

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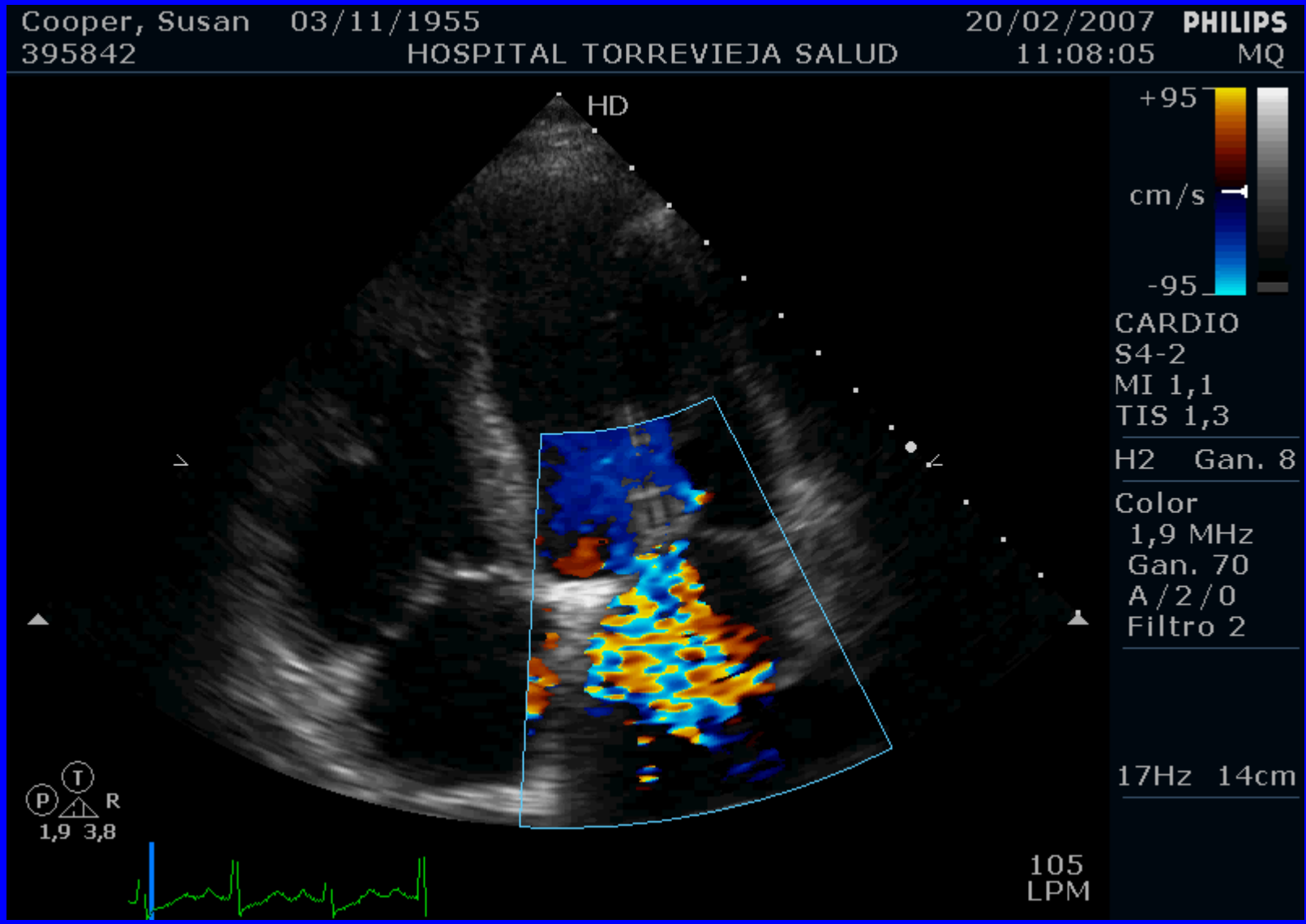

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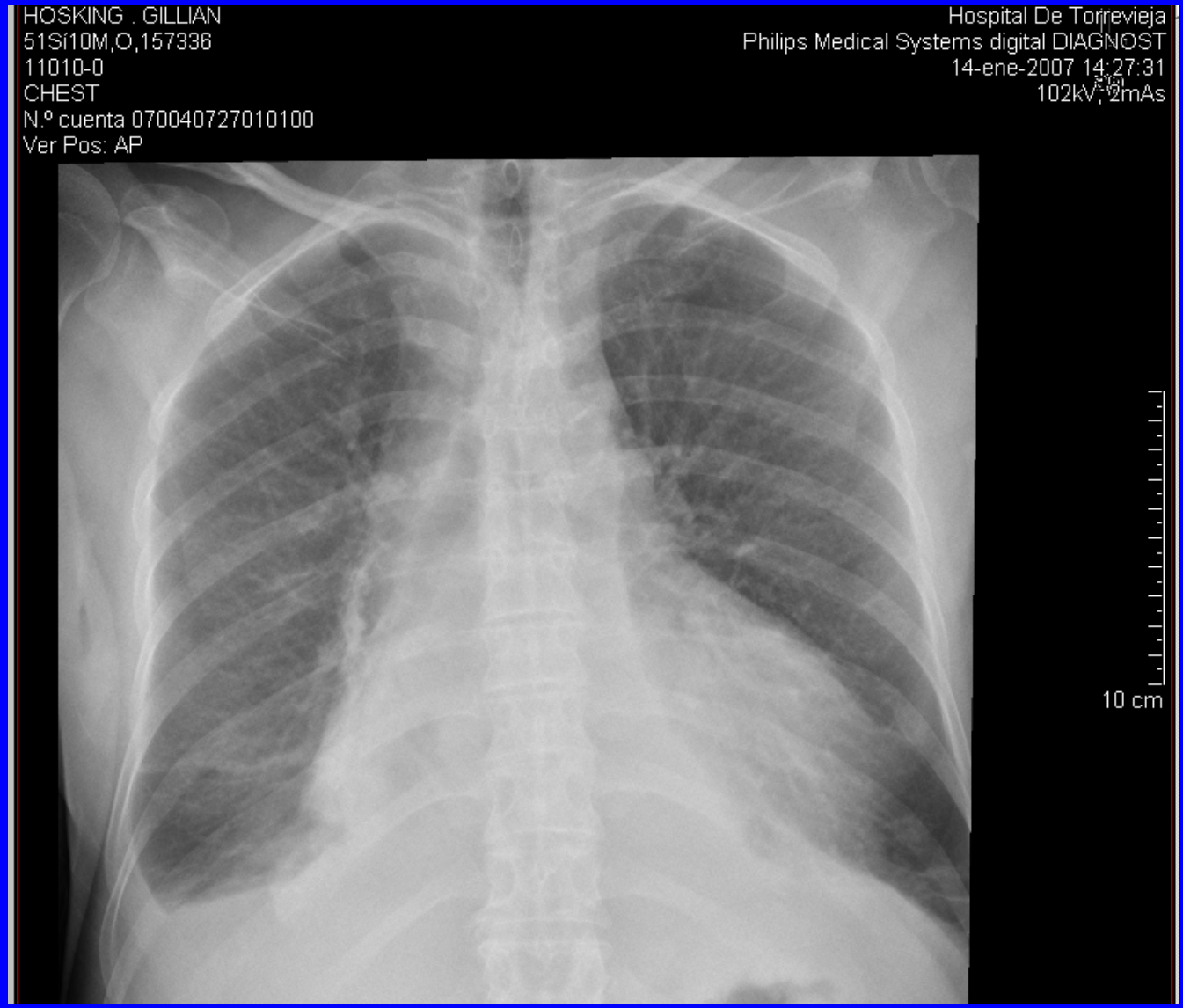

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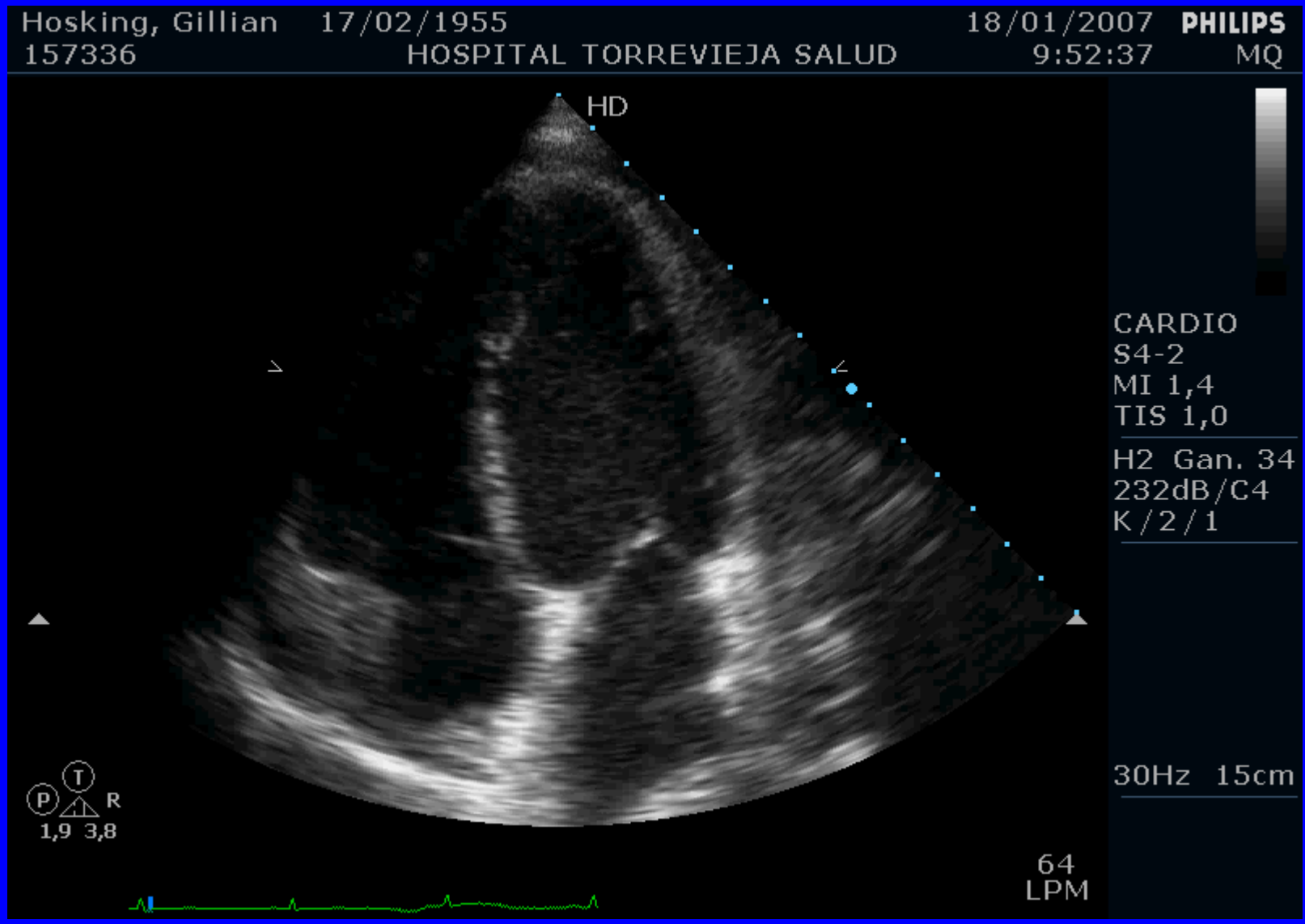

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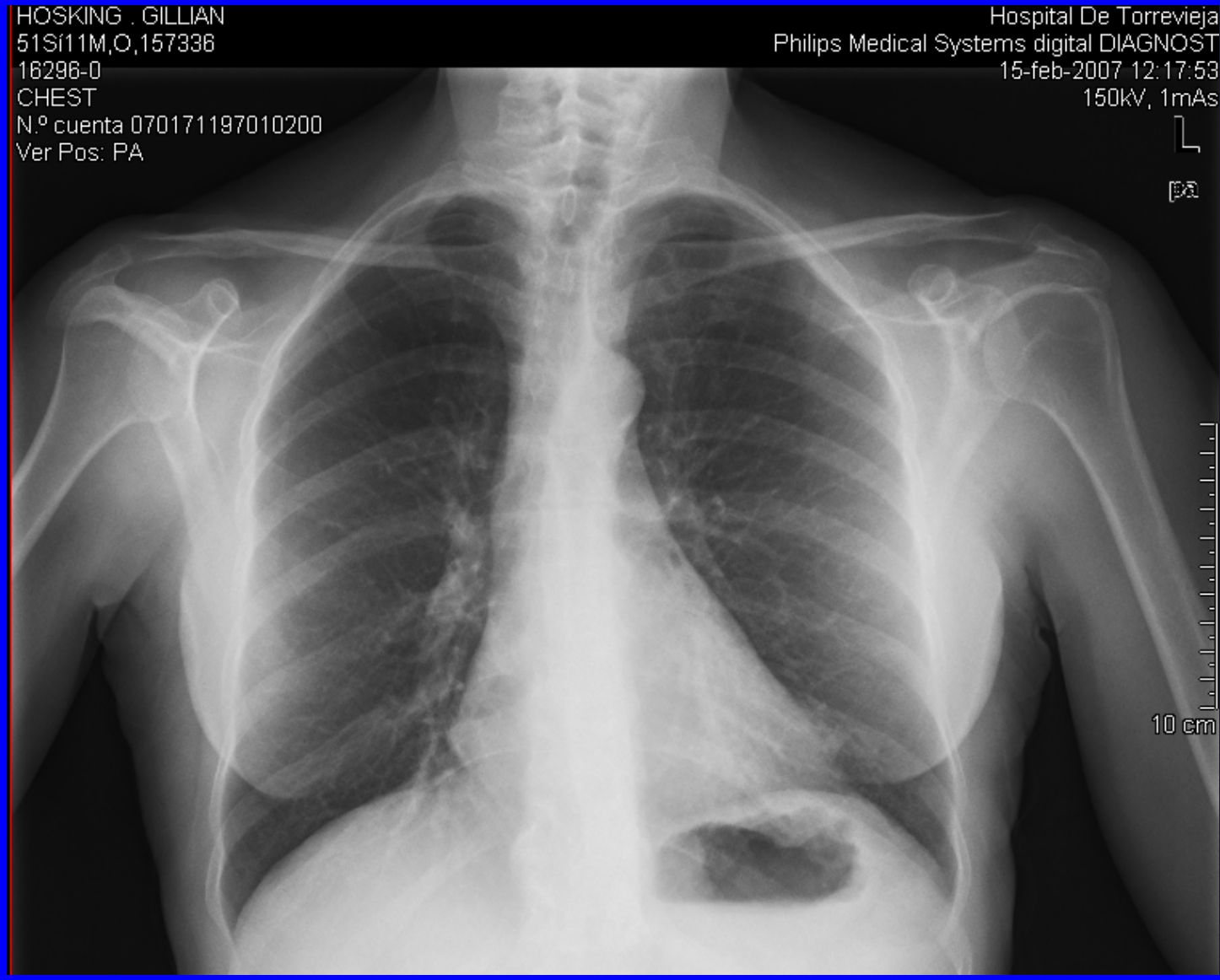

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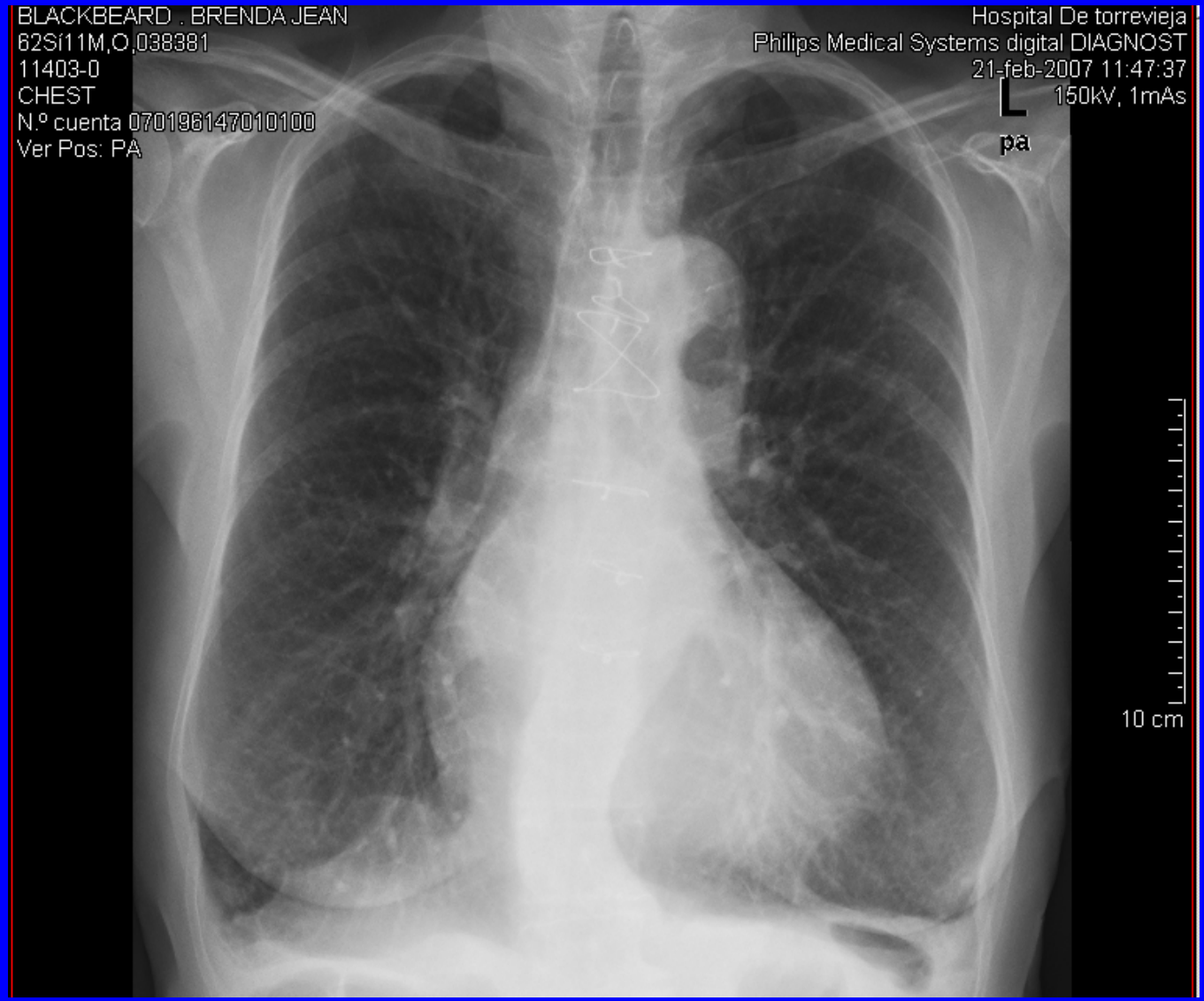

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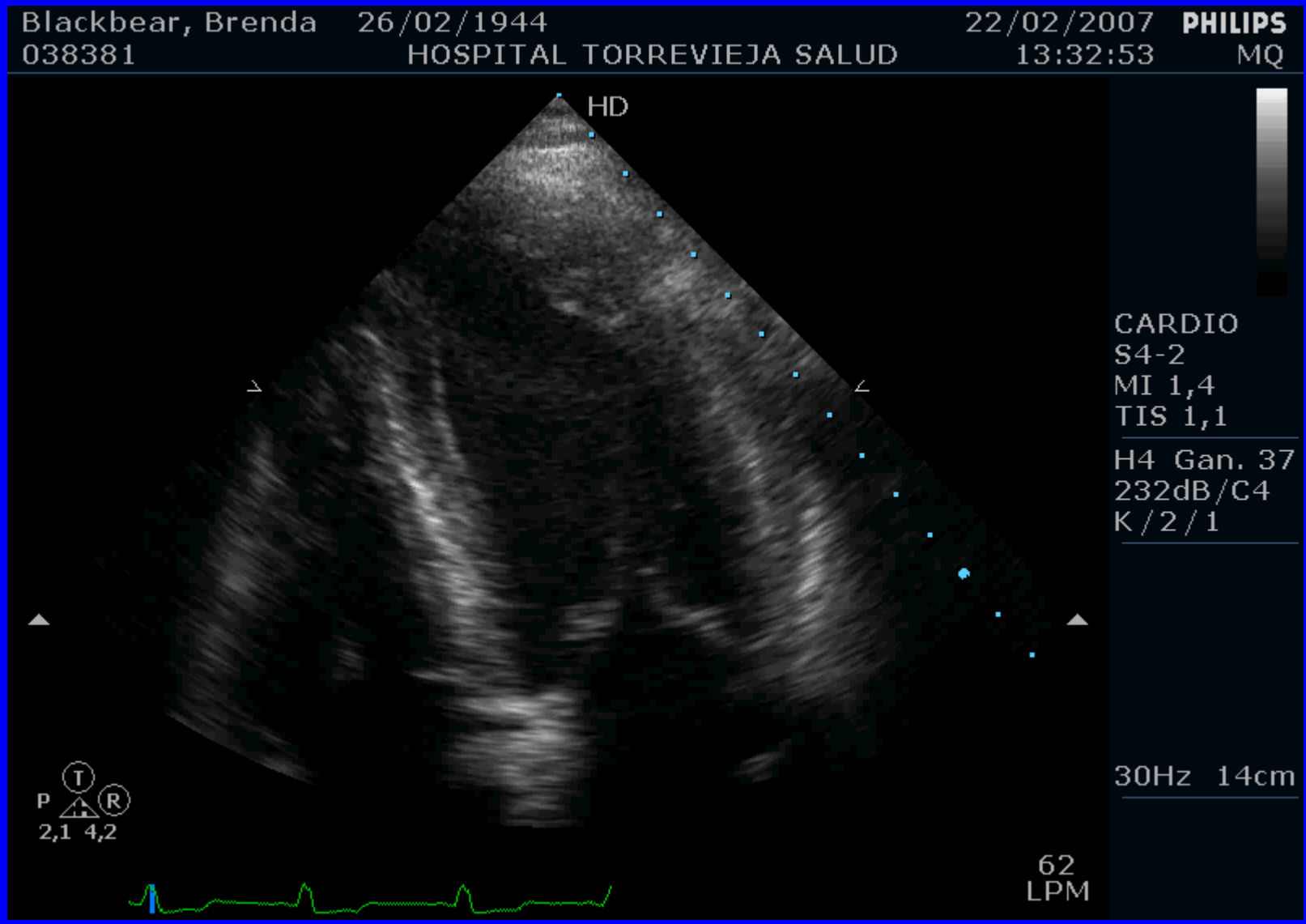

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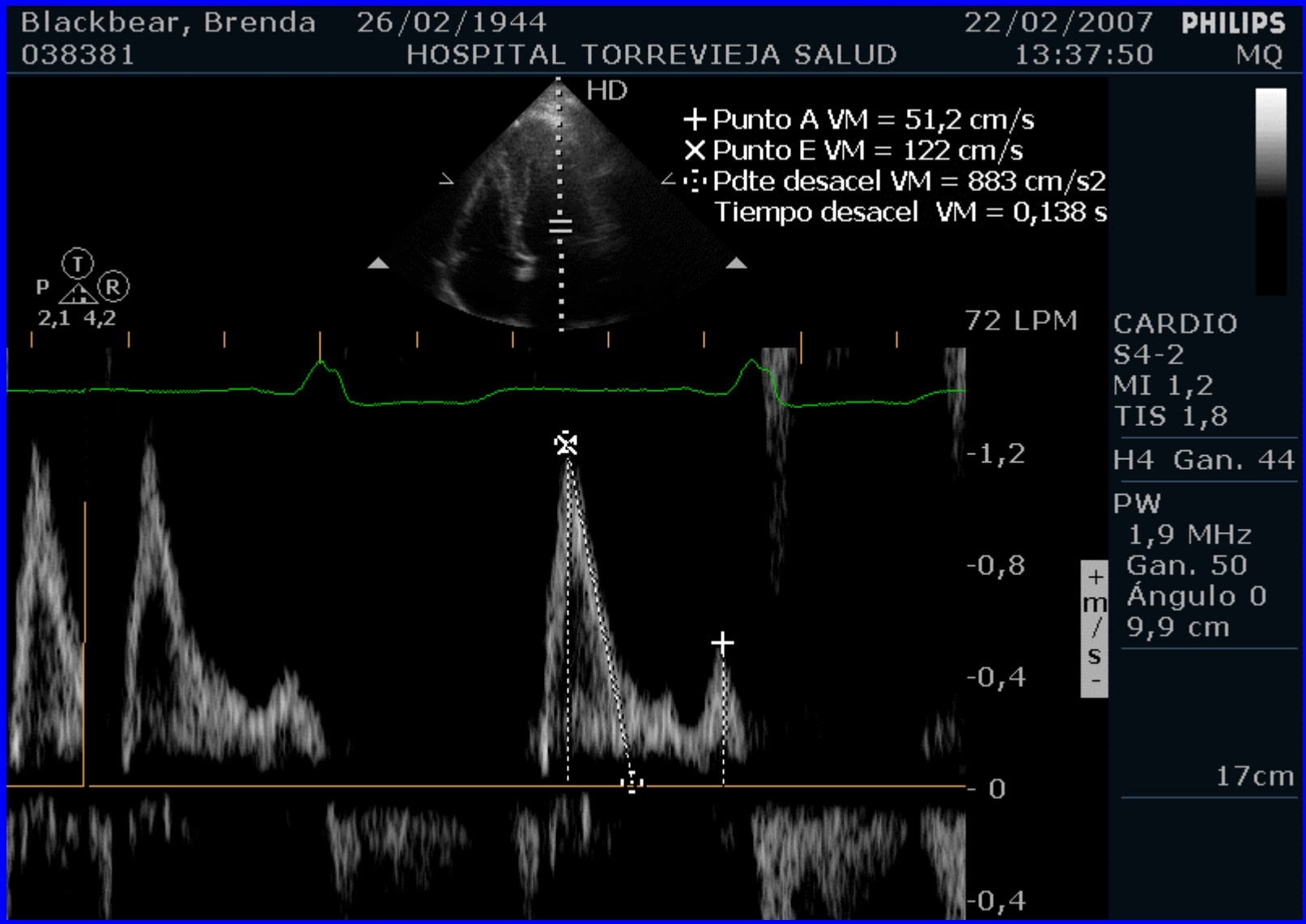

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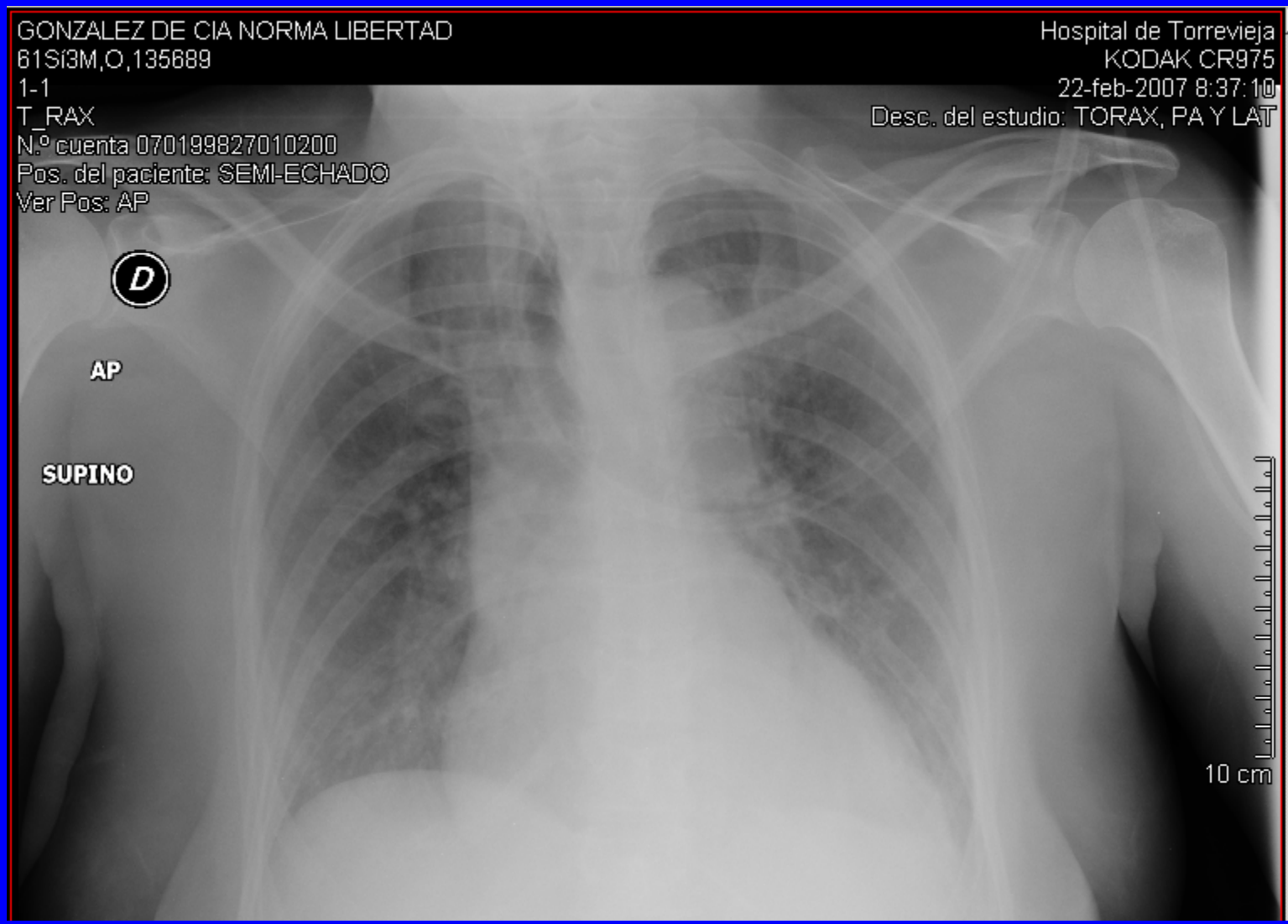

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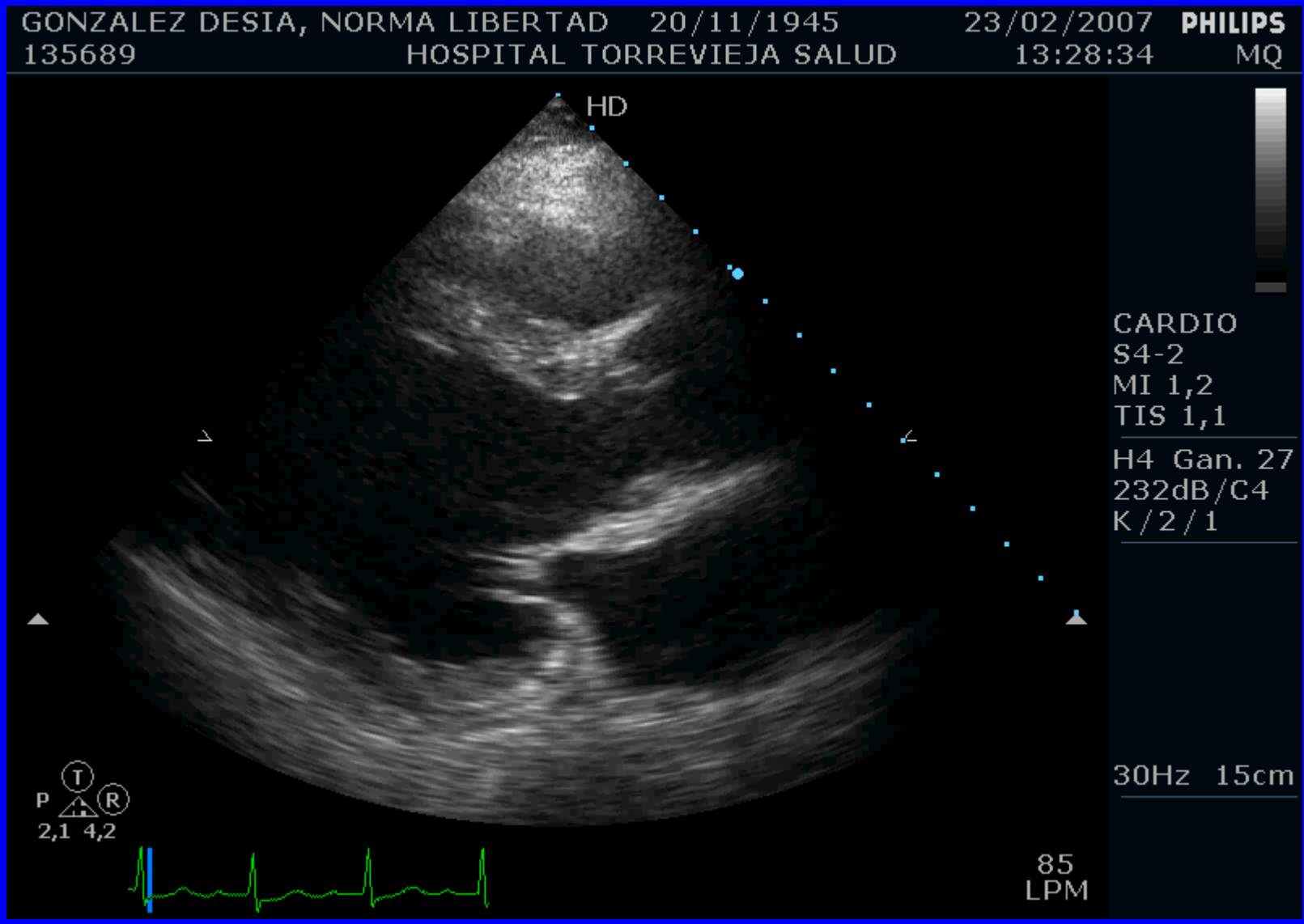

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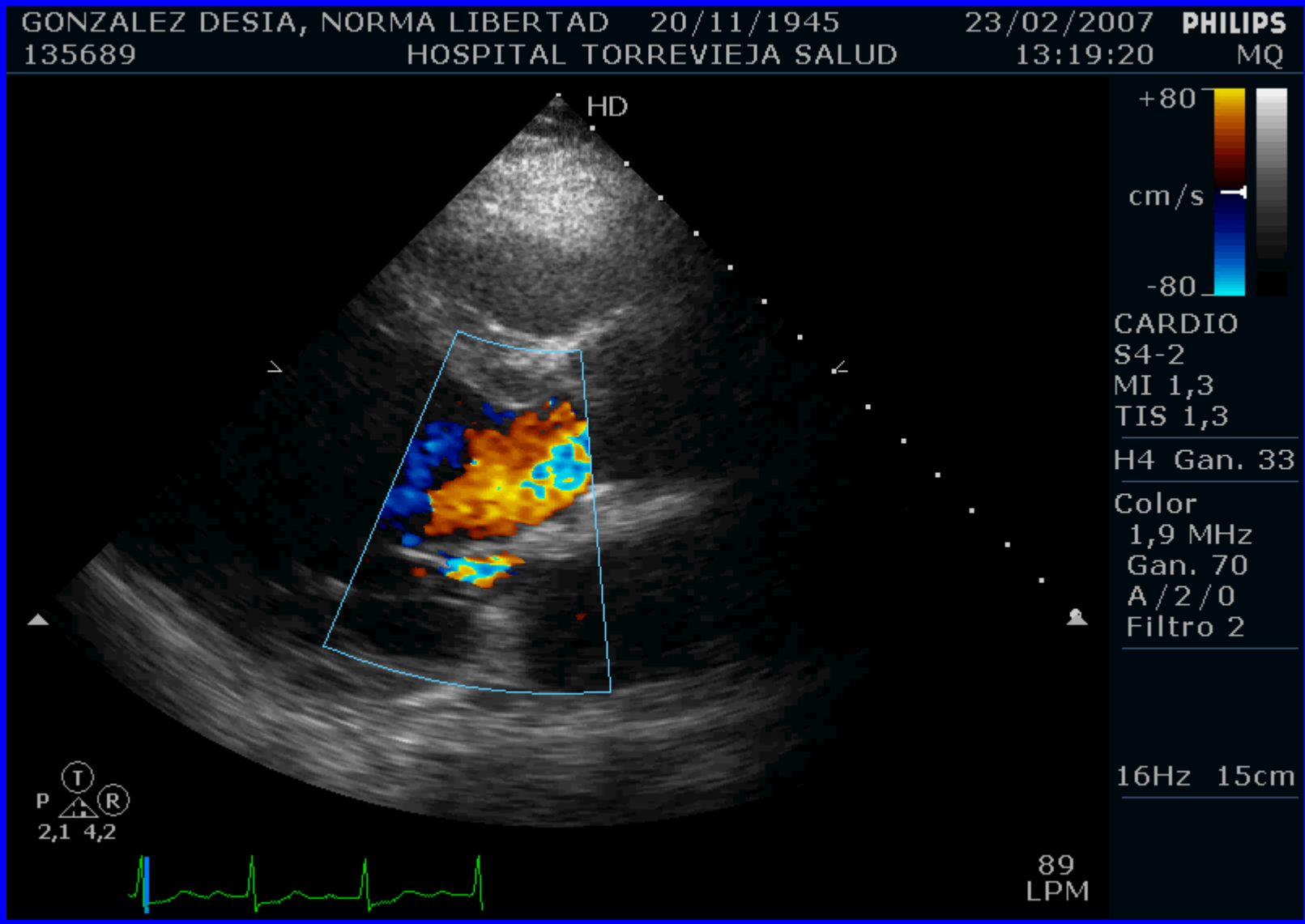

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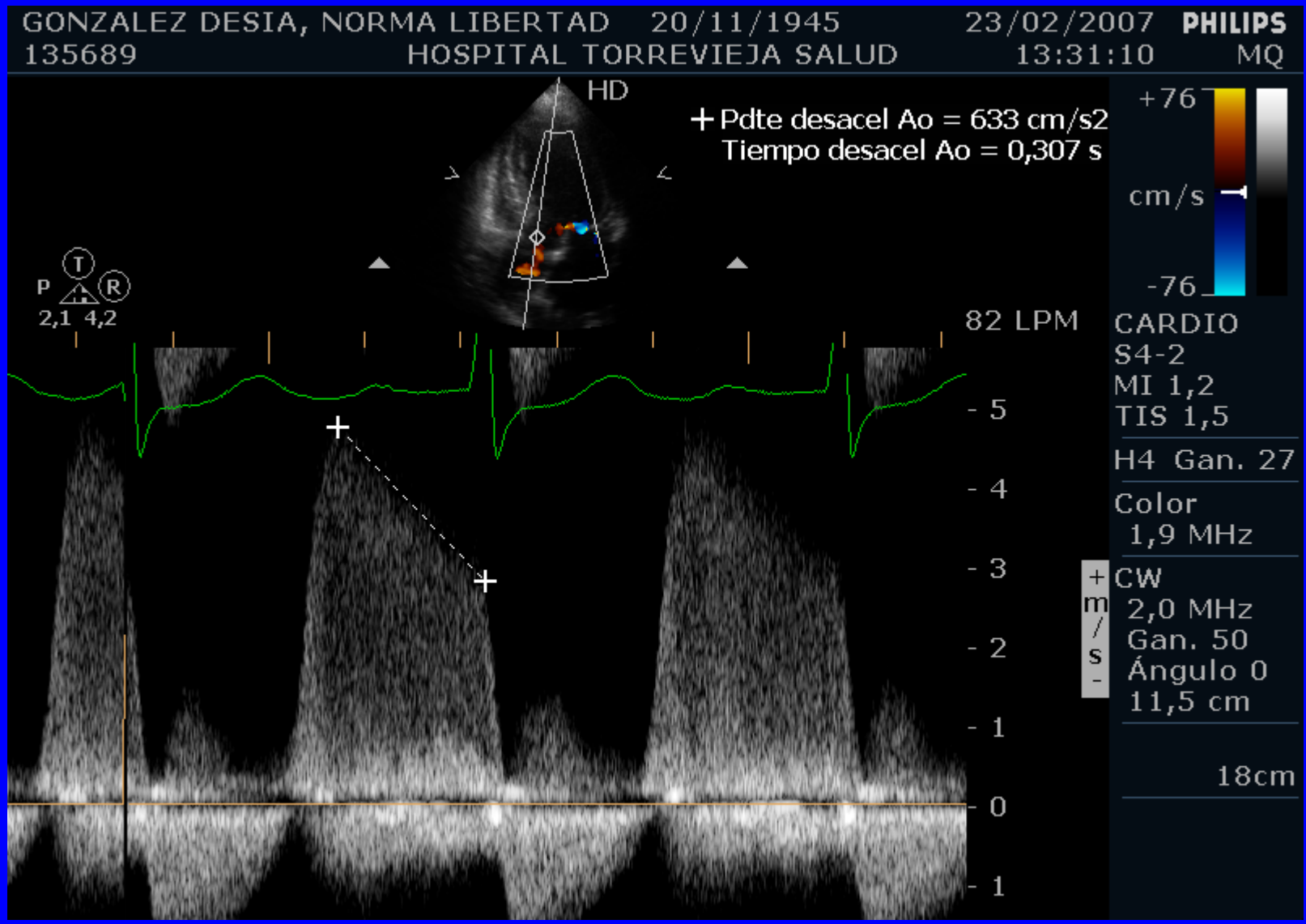

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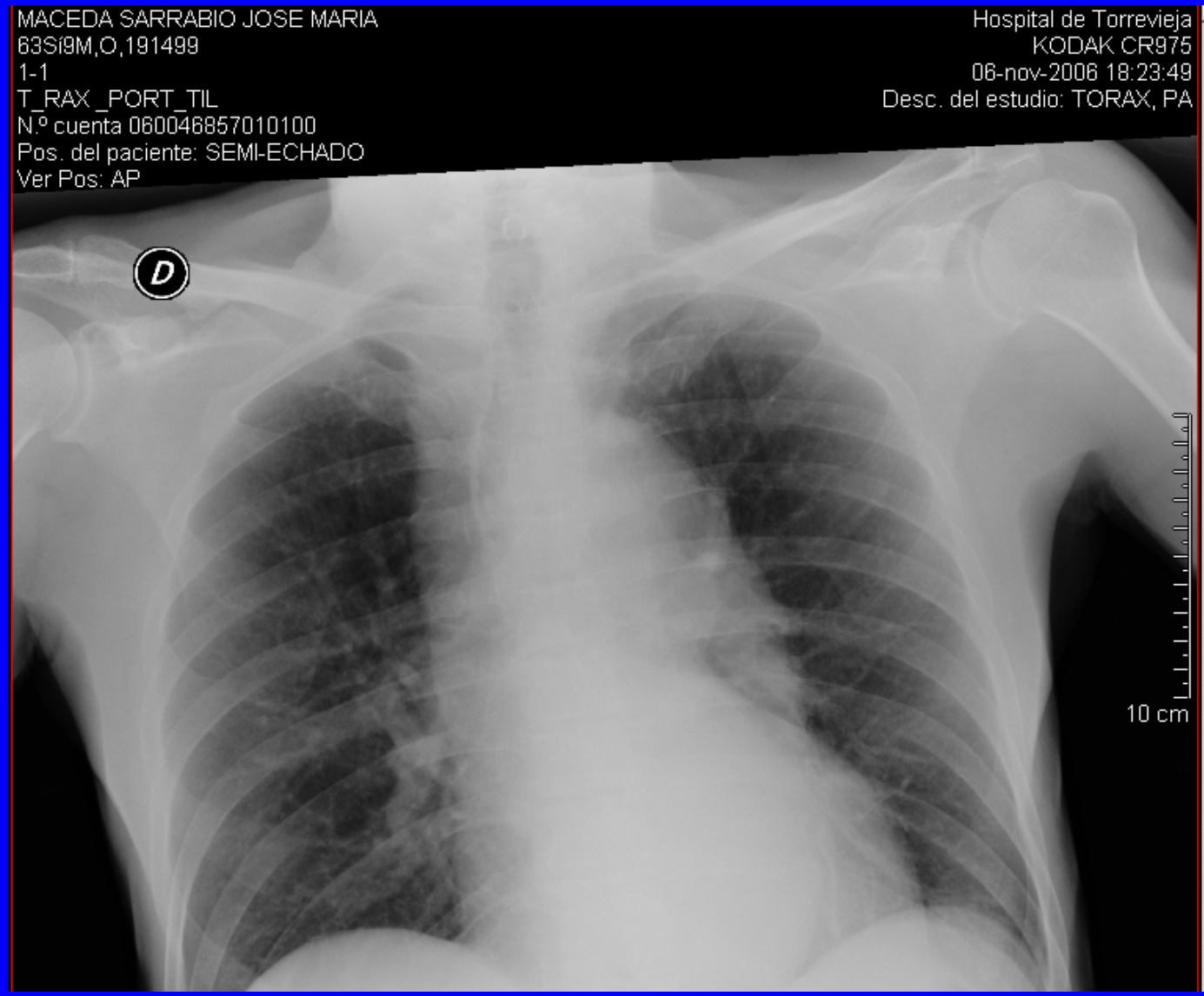

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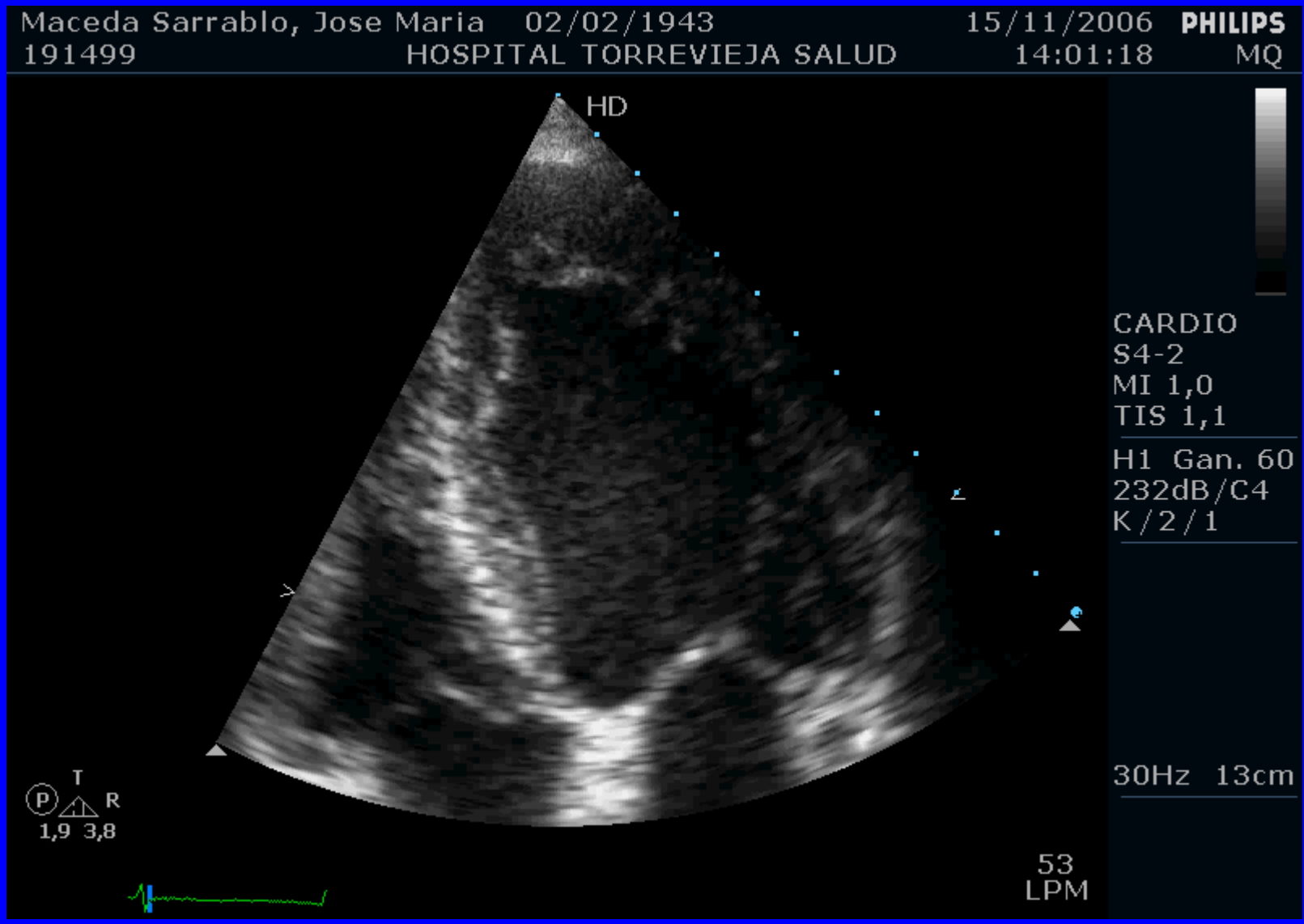

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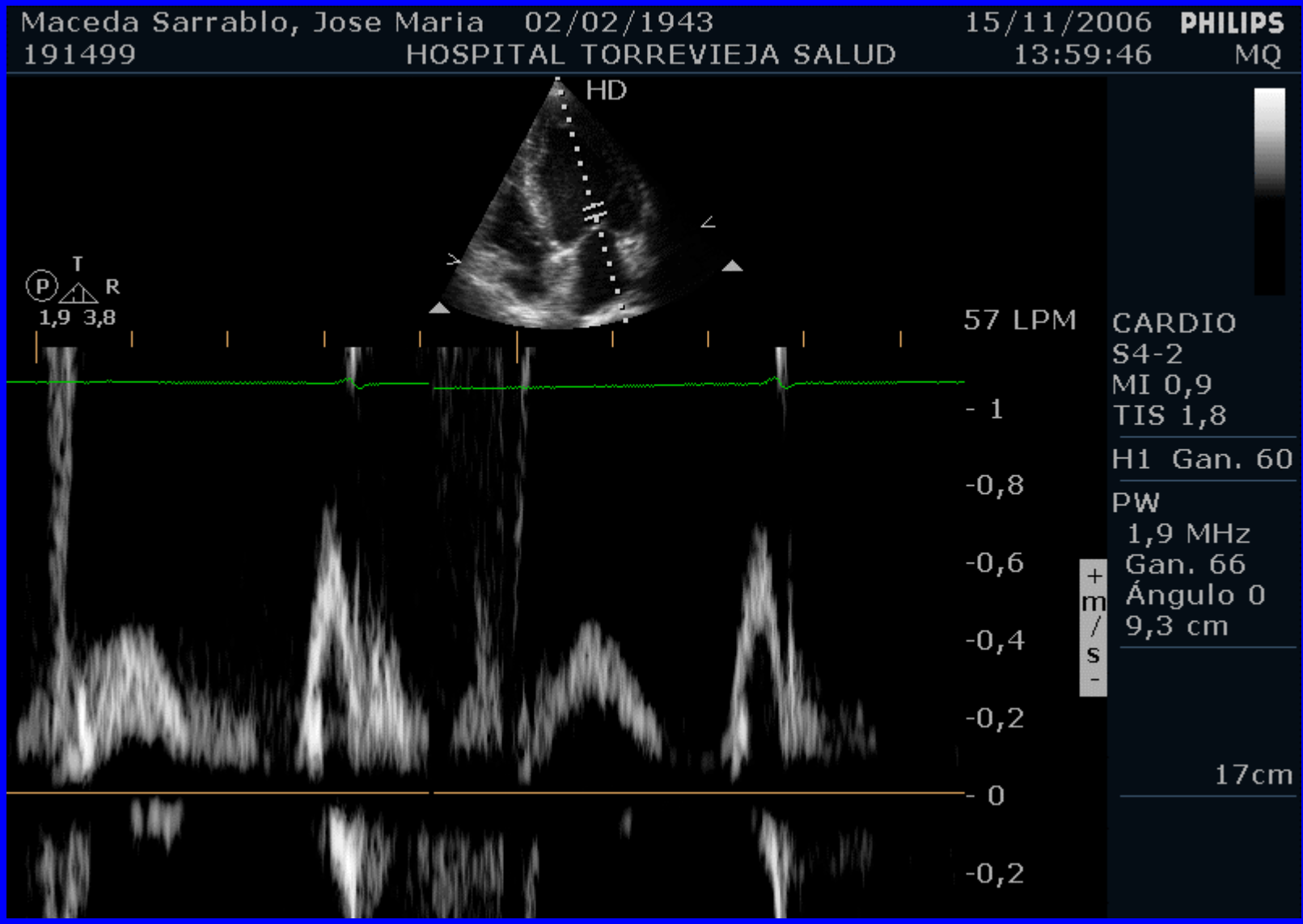

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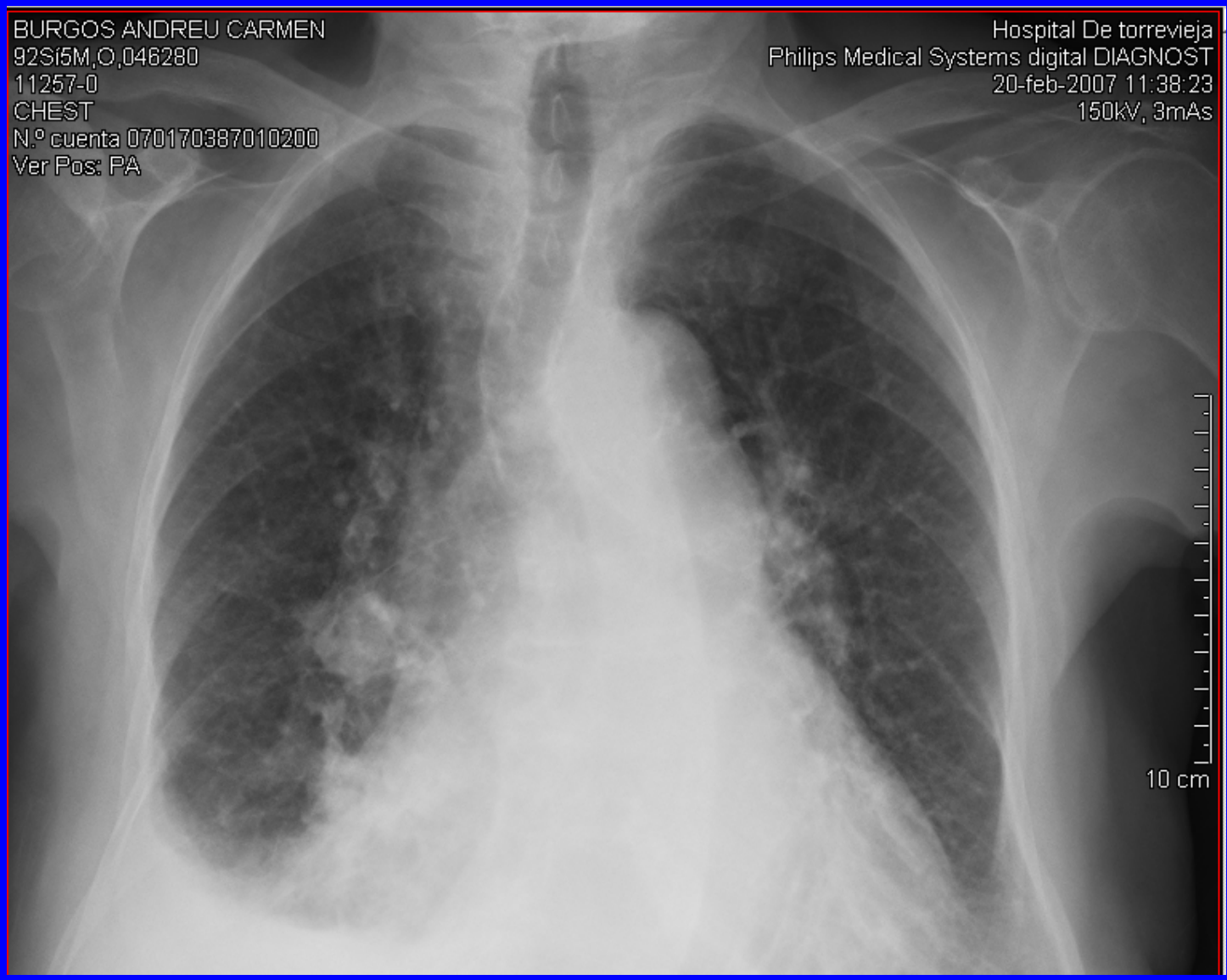

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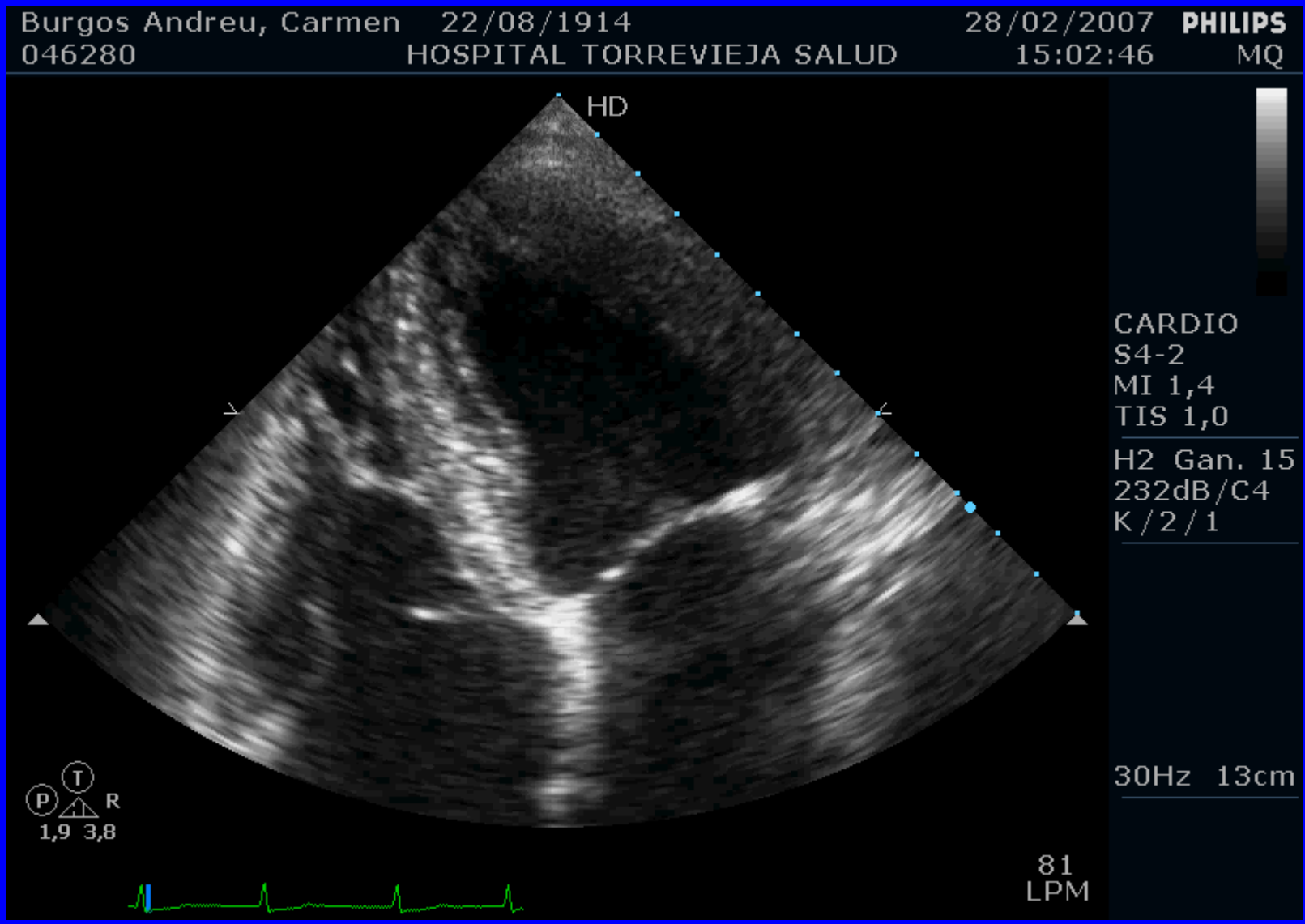

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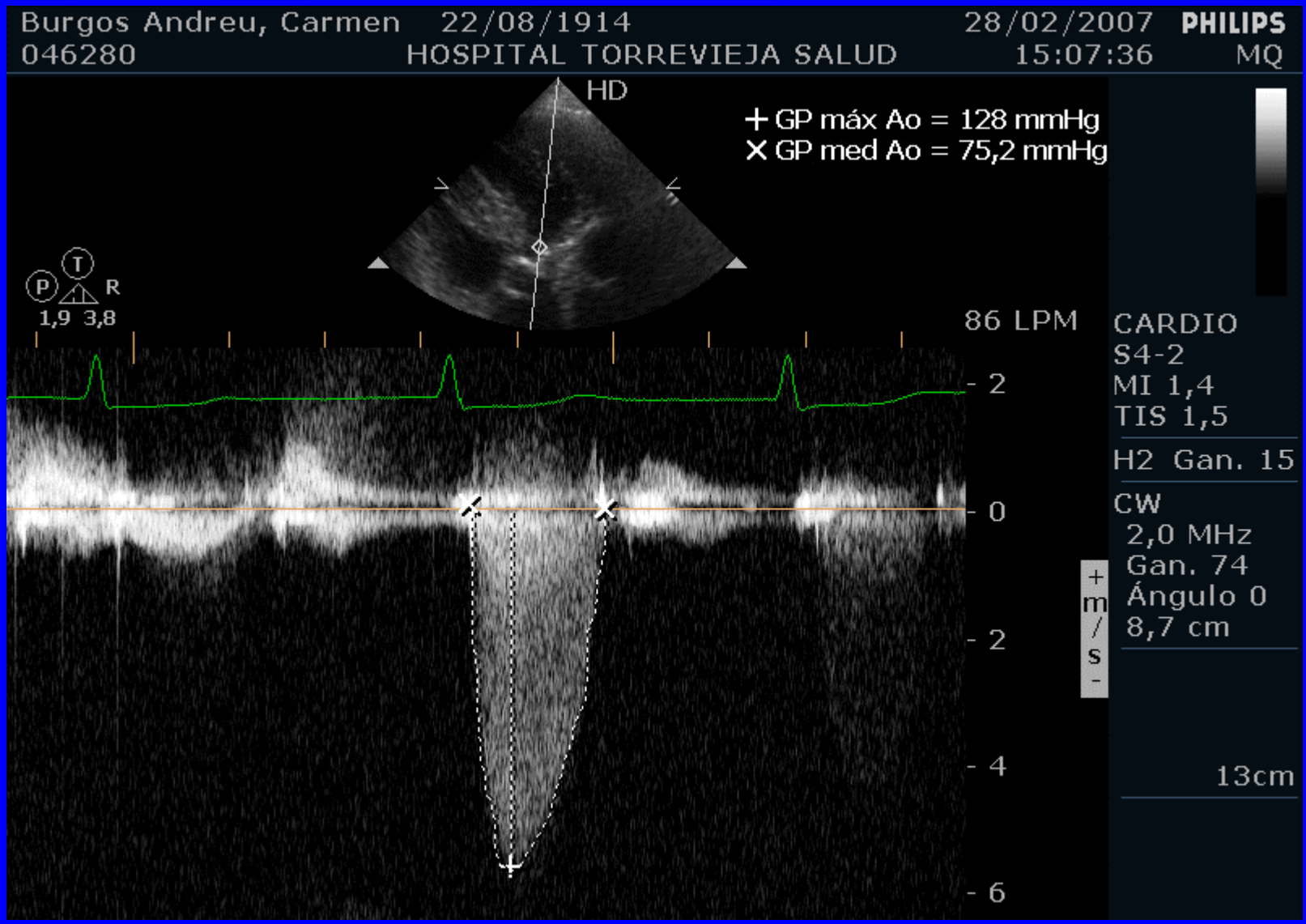

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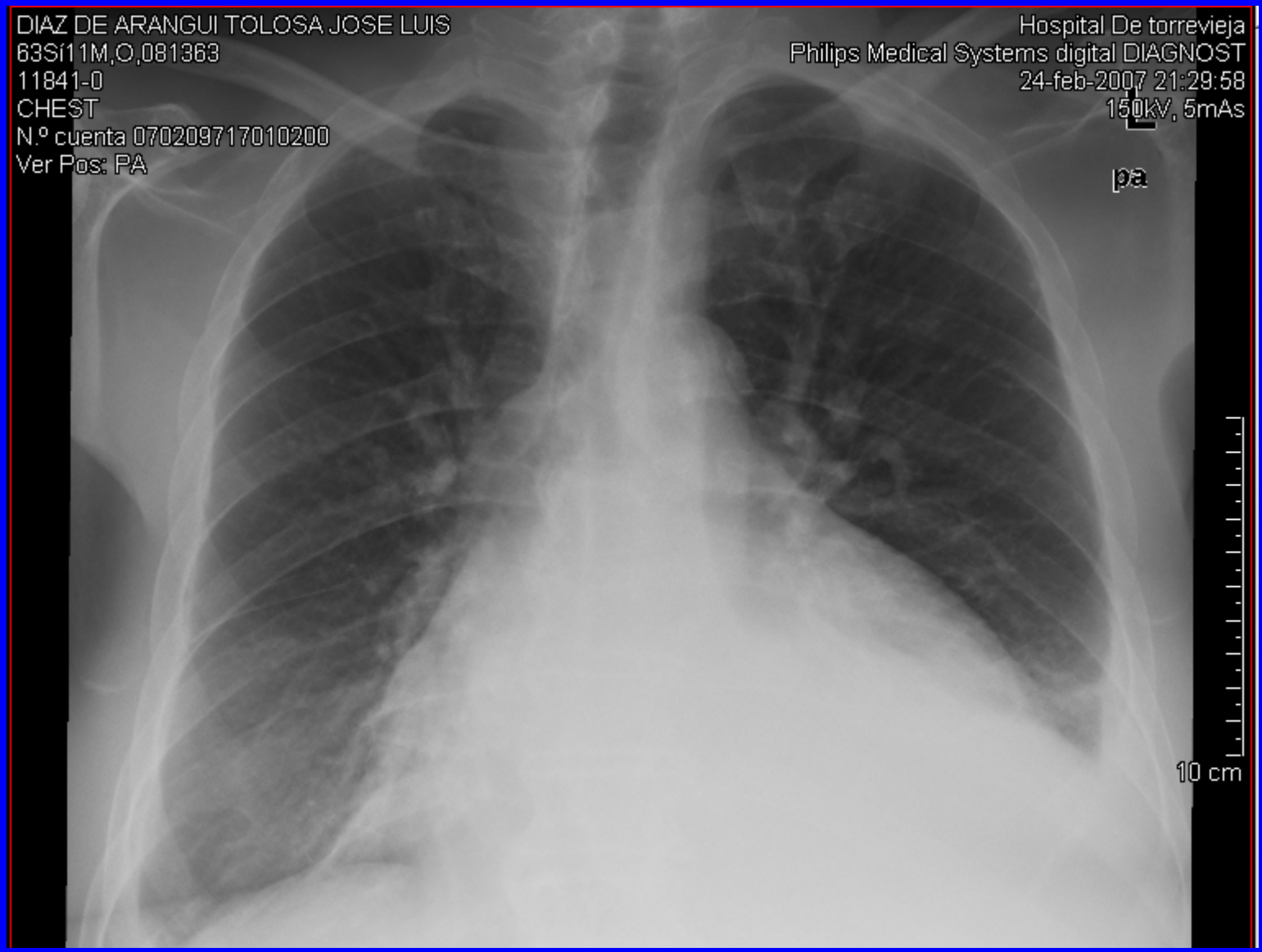

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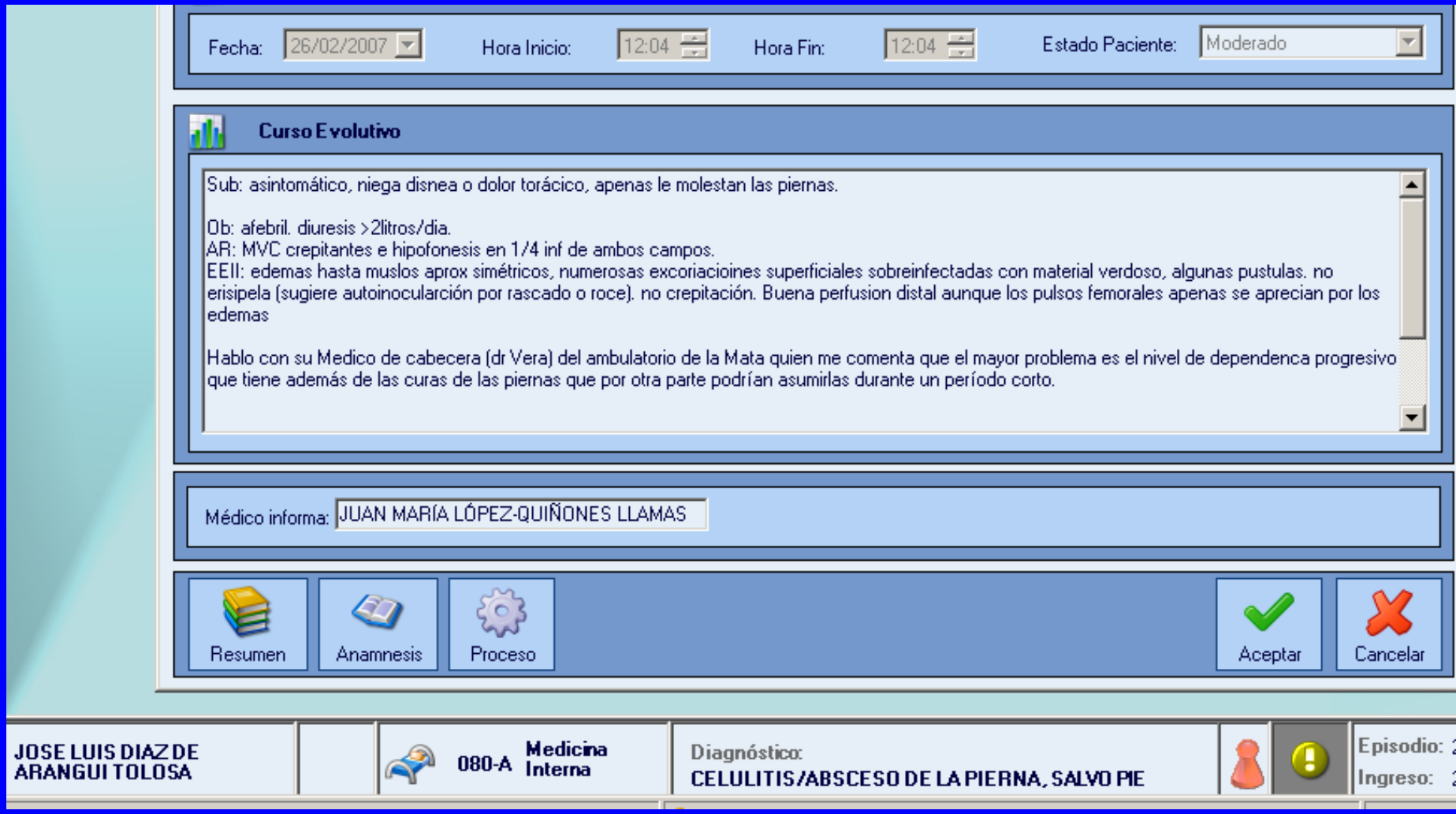

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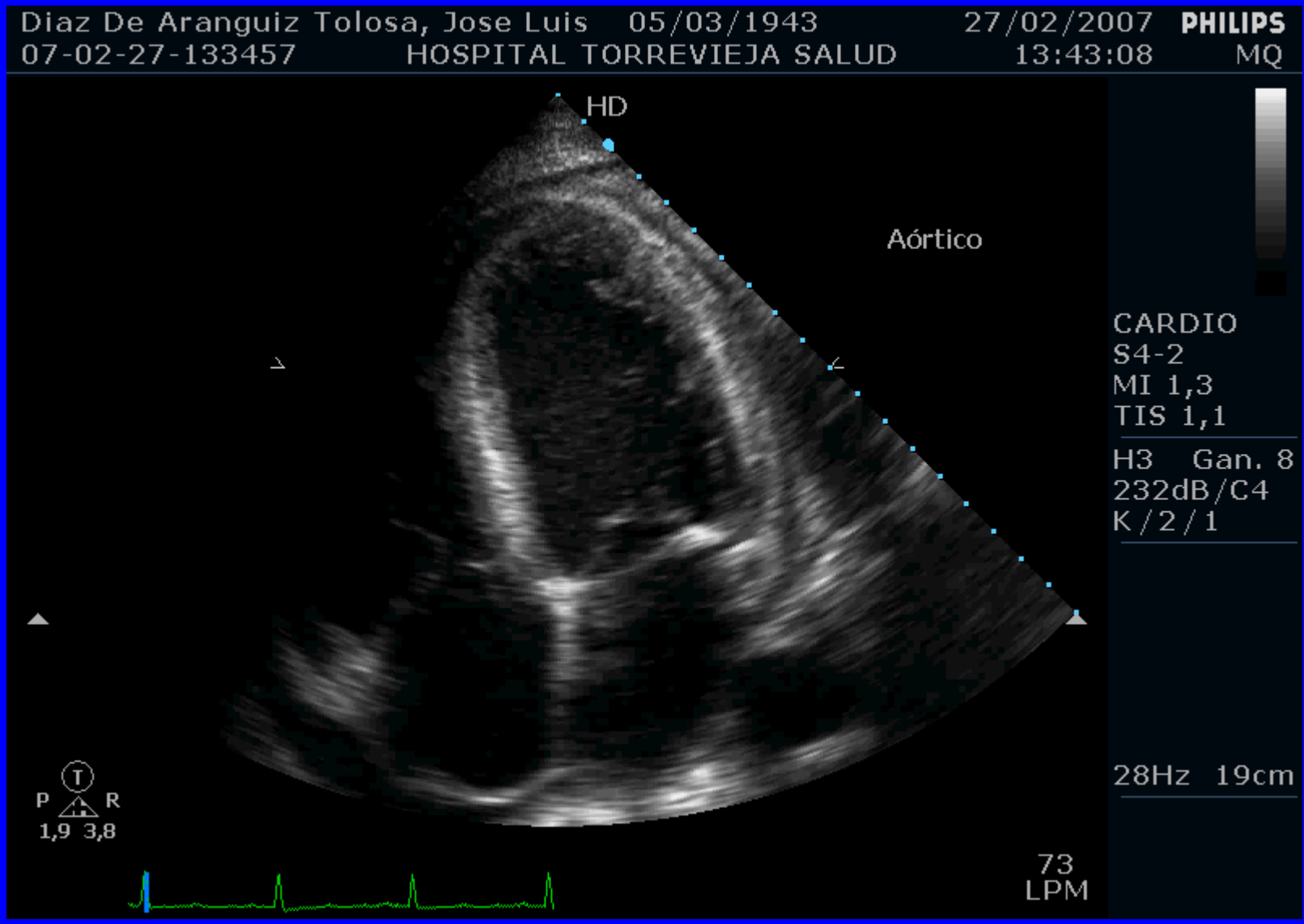

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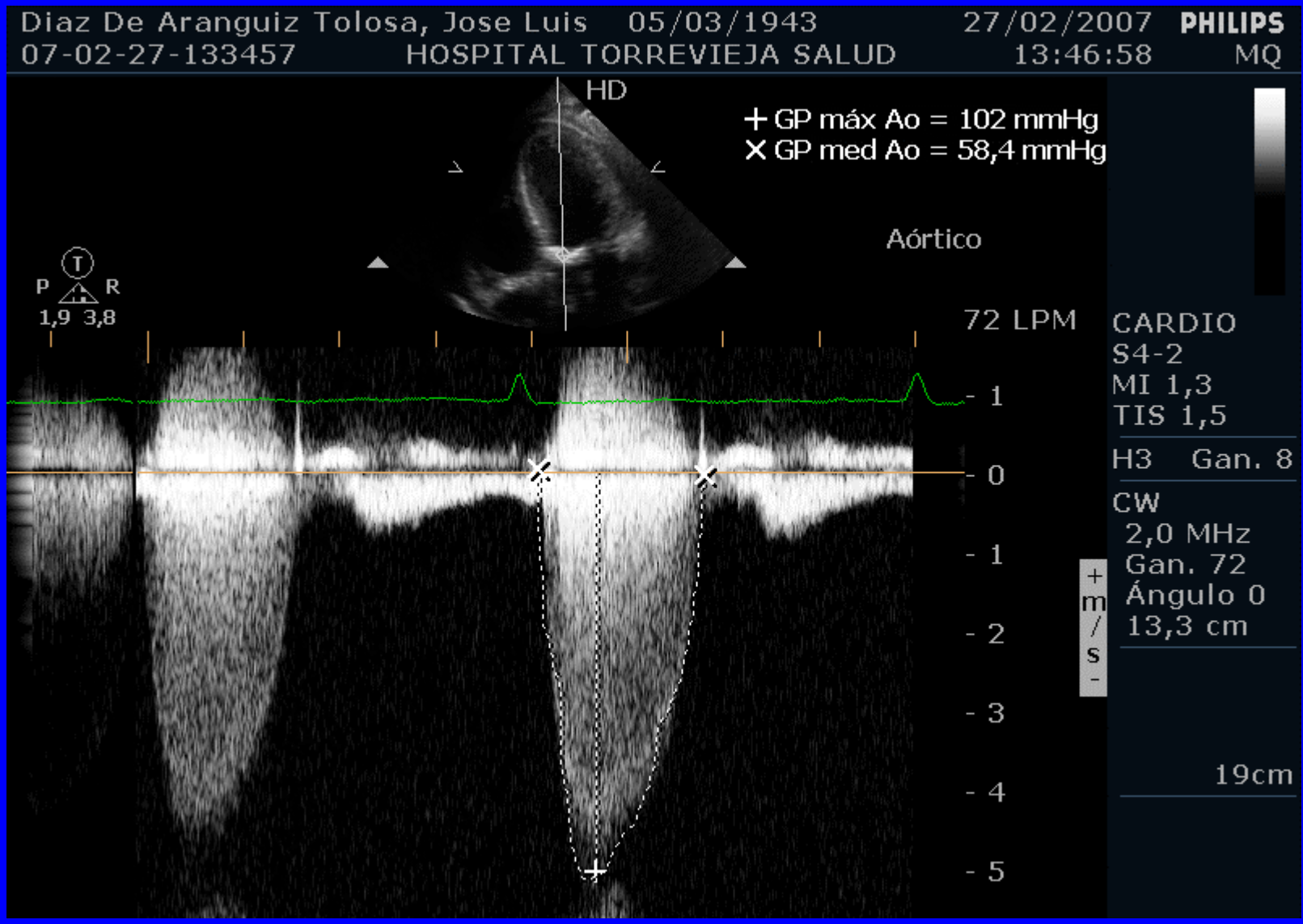

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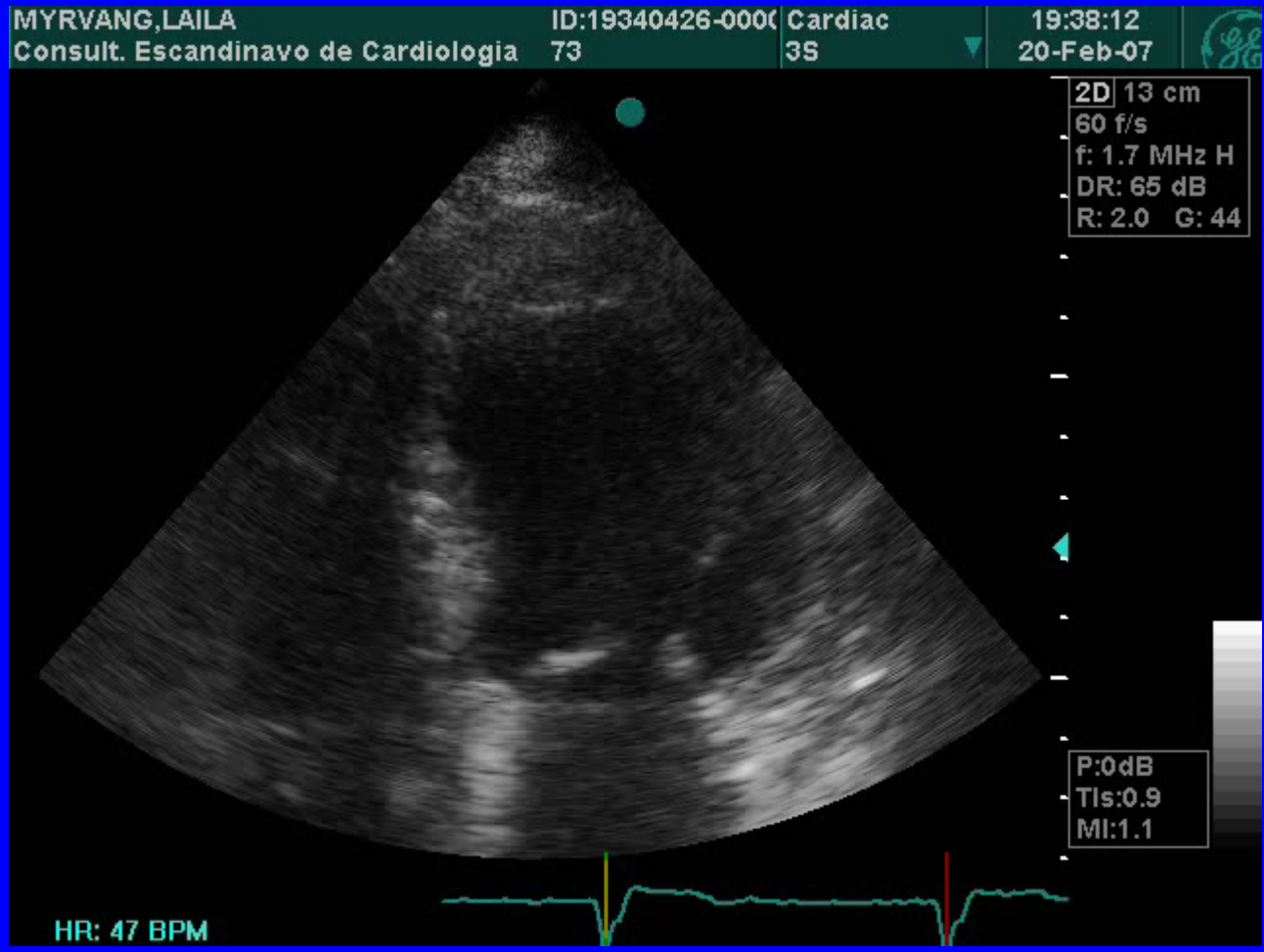

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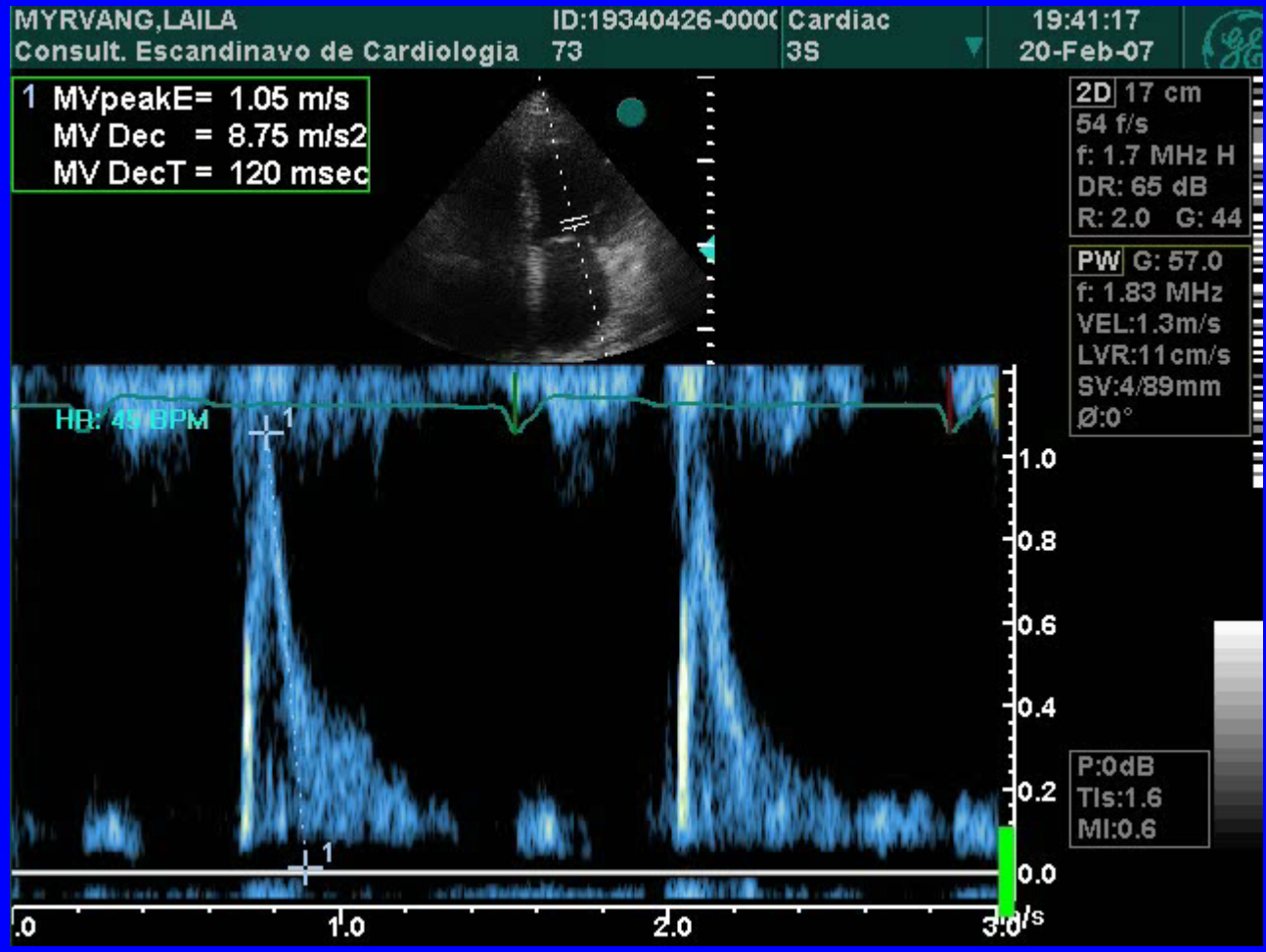

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Anemia, IRC, DM, HTA, EPOC?

Tratamiento:

Furosemida 240 mg diarios

Bumetanida 8 mg diarios

Enalapril 5 mg dos veces diarios

Candesartan 4 mg

Carvedilol 12.5 mg 1x2

Digoxina 0.13 mg diarios

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Guidelines for the diagnosis and treatment of Chronic Heart Failure: full text (update 2005)

The Task Force for the diagnosis and treatment of CHF of the European Society of Cardiology

Definition of CHF

Many definitions of CHF exist,[26–29] but only selective features of this complex syndrome are highlighted. None is entirely satisfactory. A simple objective definition of CHF is currently impossible as there is no cut-off value of cardiac or ventricular dysfunction or change in flow, pressure, dimension, or volume that can be used reliably to identify patients with heart failure. The diagnosis of heart failure relies on clinical judgement based on a history, physical examination, and appropriate investigations.

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Insuficiencia cardíaca congestiva

(conceptos y creencias a través del tiempo)

- Es igual a disfunción sistólica
- Es muy rara
- Función sistólica ligeramente deprimida
- Disfunción diastólica
- Con fracción de eyección normal
- Con reserva funcional miocárdica deprimida????

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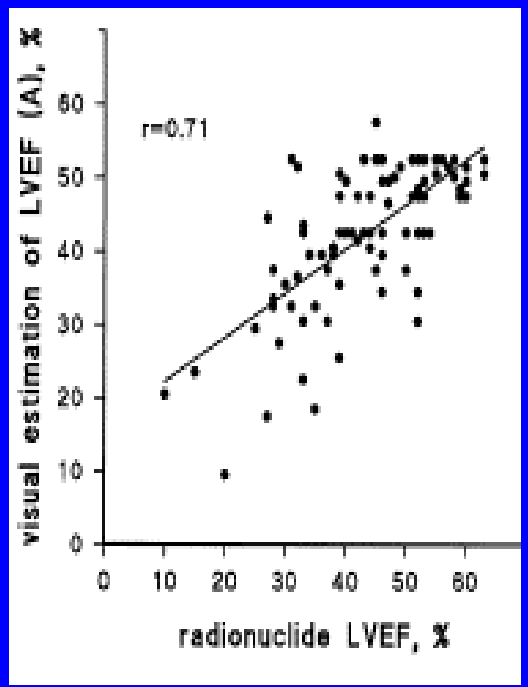
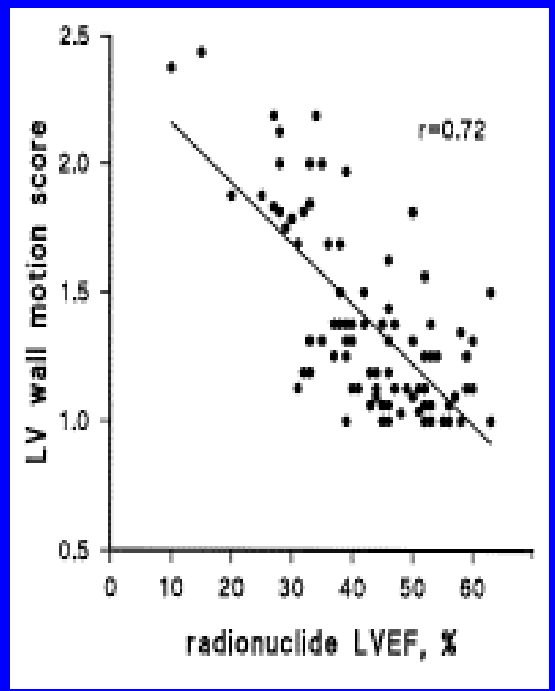
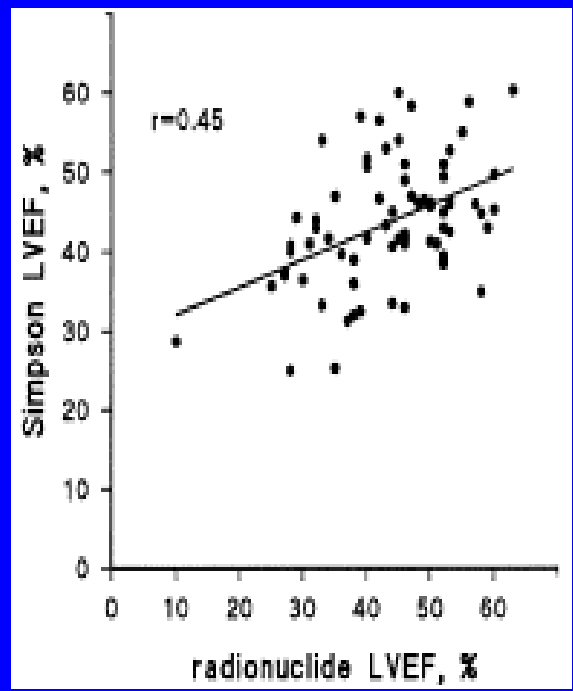
Comparison of Different Echocardiographic Methods With Radionuclide Imaging for Measuring Left Ventricular Ejection Fraction During Acute Myocardial Infarction Treated by Thrombolytic Therapy







(Am J Cardiol 1998;81:538–544)

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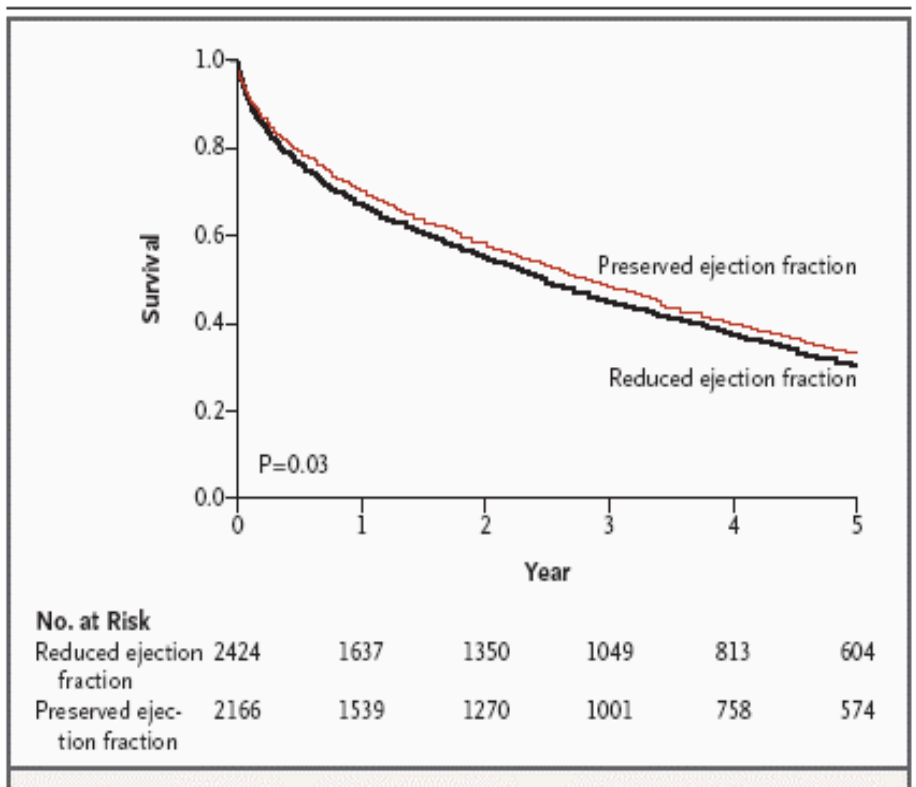
Trends in Prevalence and Outcome of Heart Failure with Preserved Ejection Fraction



A total of 6076 patients with heart failure were discharged over the 15-year period; data on ejection fraction were available for 4596 of these patients (76 percent). Of

N Engl J Med 2006;355:251-9.

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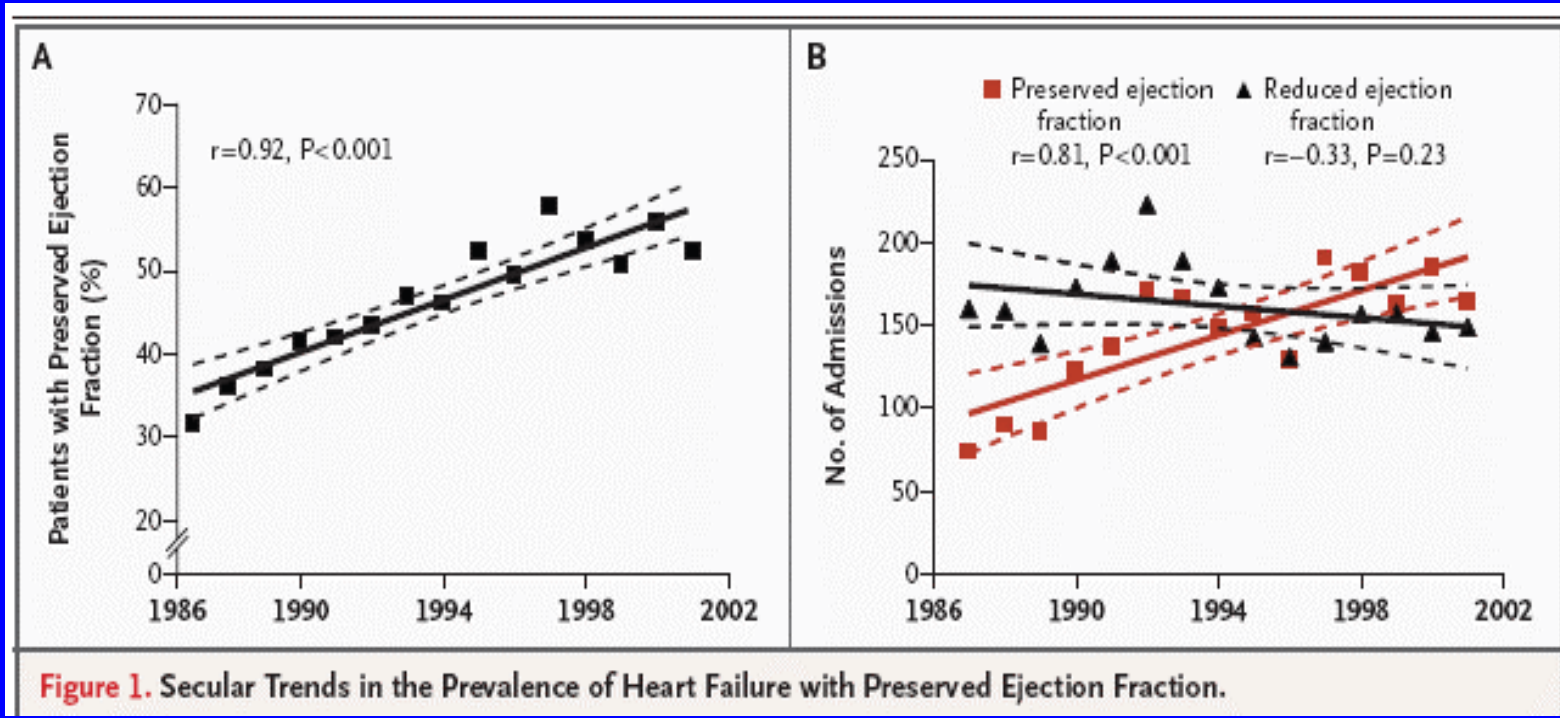

Figure 1. Secular Trends in the Prevalence of Heart Failure with Preserved Ejection Fraction.

N Engl J Med 2006;355:251-9.

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Outcome of Heart Failure with Preserved Ejection Fraction in a Population-Based Study

R. Sacha Bhatia, M.D., M.B.A., Jack V. Tu, M.D., Ph.D., Douglas S. Lee, M.D., Ph.D., Peter C. Austin, Ph.D., Jiming Fang, Ph.D., Annick Haouzi, M.D., Yanyan Gong, M.Sc., and Peter P. Liu, M.D.

A total of 9945 patients were admitted and met the predefined criteria for heart failure at the 103 participating hospitals during the study period. Of these, 5775 patients were excluded because echocardiography, angiography, or nuclear scintigraphy was not performed at admission. Another 717 patients who had undergone echocardiography were excluded because their ejection fraction had not been documented, and 649 were excluded because they had severe aortic or mitral valve disease. Two patients were excluded because they did not have a valid health-card number.

7141 de 9945
(72%) fueron excluidos

N Engl J Med 2006;355:260-9.

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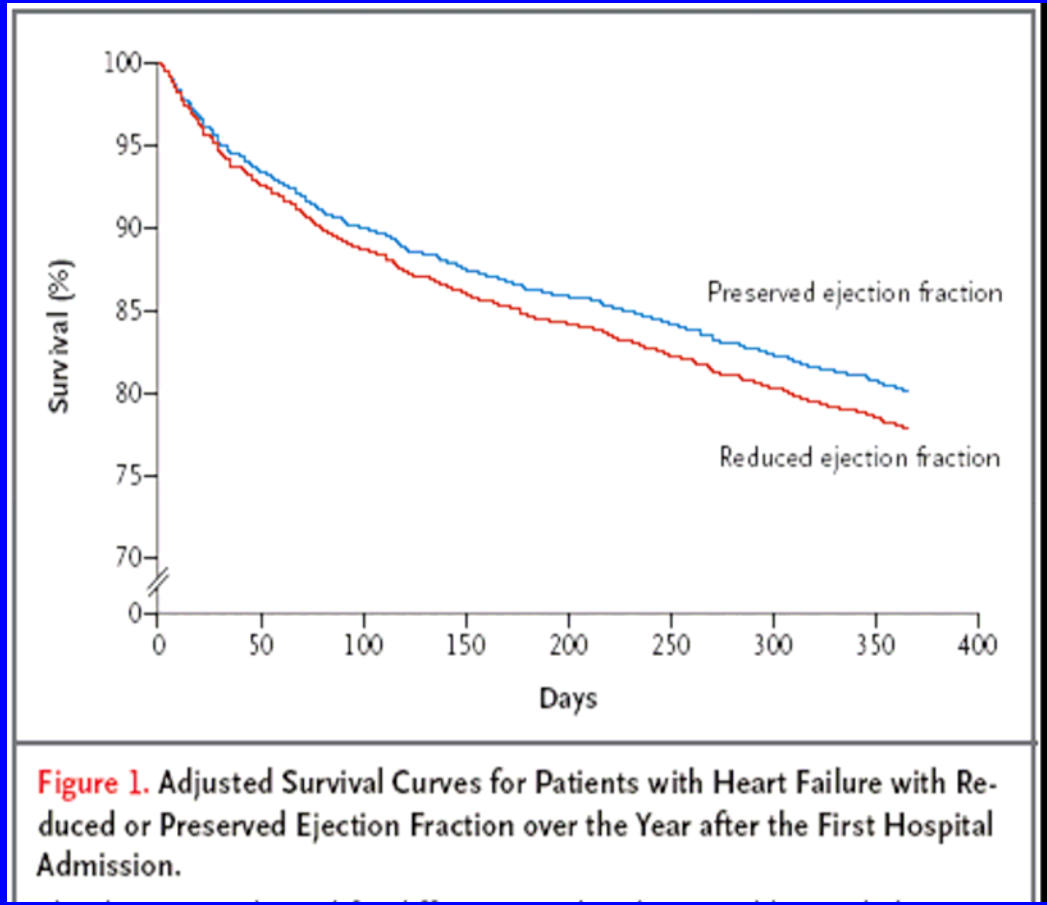

Figure 1. Adjusted Survival Curves for Patients with Heart Failure with Reduced or Preserved Ejection Fraction over the Year after the First Hospital Admission.

N Engl J Med 2006;355:260-9.

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Do patients with suspected heart failure and preserved left ventricular systolic function suffer from "diastolic heart failure" or from misdiagnosis? A prospective descriptive study

Lynn Caruana, Mark C Petrie, Andrew P Davie and John J V McMurray

BMJ 2000;321;215-218
doi:10.1136/bmj.321.7255.215

What is already known on this topic

Patients with suspected heart failure but preserved left ventricular systolic function are commonly said to have "diastolic heart failure"

What this study adds

Most of these patients have an alternative explanation for their symptoms, such as obesity, pulmonary disease, and myocardial ischaemia

---

Complete investigation of these patients requires more than an echocardiogram

---

Improved patient care should result from recognition of the true cause of a patient's symptoms as there are appropriate management strategies for these alternative diagnoses; this is preferable to ascribing symptoms to diastolic heart failure for which there is no evidence based treatment

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THE PATHOGENESIS OF ACUTE PULMONARY EDEMA ASSOCIATED WITH HYPERTENSION

SANJAY K. GANDHI, M.D., JOHN C. POWERS, M.D., ABDEL-MOHSEN NOMEIR, M.D., KAREN FOWLE, R.T., R.D.C.S., DALANE W. KITZMAN, M.D., KEVIN M. RANKIN, M.D., AND WILLIAM C. LITTLE, M.D.

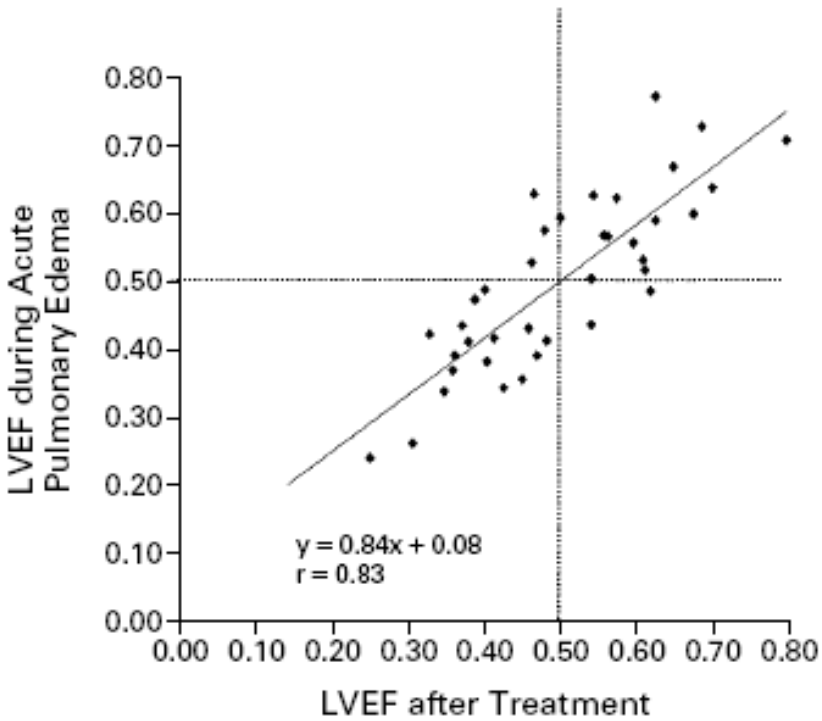

Figure 2. Left Ventricular Ejection Fraction (LVEF) during Acute Pulmonary Edema and One to Three Days Later, after Treatment.

N Engl J Med, Vol. 344, No. 1 · January 4, 2001

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Table 1. Characteristics of Patients with Heart Failure and Preserved or Reduced Ejection Fraction.*

Characteristic	Reduced Ejection Fraction (N=2429)	Preserved Ejection Fraction (N=2167)	P Value	Adjusted P Value†
Age (yr)	71.7±12.1	74.4±14.4	<0.001	NA
Male sex (% of patients)	65.4	44.3	<0.001	<0.001
Body-mass index‡	28.6±7.0	29.7±7.8	0.002	0.17
Obesity (% of patients)‡§	35.5	41.4	0.007	0.002
Serum creatinine on admission (mg/dl)	1.6±1.0	1.6±1.1	0.31	0.30
Hemoglobin on admission (g/dl)	12.5±2.0	11.8±2.1	<0.001	<0.001
Hypertension (% of patients)	48.0	62.7	<0.001	<0.001
Coronary artery disease (% of patients)	63.7	52.9	<0.001	<0.001
Atrial fibrillation (% of patients)	28.5	41.3	<0.001	<0.001
Diabetes (% of patients)	34.3	33.1	0.42	0.61
Substantial valve disease (% of patients)	6.5	2.6	<0.001	0.05
Ejection fraction (%)	29±10	61±7	<0.001	NA

N Engl J Med 2006;355:251-9.

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Table 1. Characteristics of Patients.*

Characteristic	Reduced Ejection Fraction (≤40%) (N=1570)	Preserved Ejection Fraction (>50%) (N=880)	P Value
Mean LVEF — %	25.9	62.4	<0.001
Age — yr	71.8 ± 12	75.4 ± 11.51	<0.001
Male sex — no. (%)	983 (62.6)	302 (34.3)	<0.001
Coronary artery disease or ischemia — no. (%)	764 (48.7)	312 (35.5)	<0.001
Hypertension — no. (%)	772 (49.2)	485 (55.1)	0.005
Hyperlipidemia — no. (%)	350 (22.3)	136 (15.5)	<0.001
Diabetes — no. (%)	611 (38.9)	279 (31.7)	<0.001
Cerebrovascular accident or transient ischemic attack — no. (%)	229 (14.6)	133 (15.1)	0.72
Angina — no. (%)	440 (28.0)	201 (22.8)	0.005
Ever smoked — no. (%)	754 (48.0)	322 (36.6)	<0.001
Currently smoking — no. (%)	271 (17.3)	106 (12.0)	<0.001
Peripheral vascular disease — no. (%)	236 (15.0)	92 (10.5)	<0.001
Atrial fibrillation — no. (%)	370 (23.6)	280 (31.8)	<0.001
Cancer — no. (%)	182 (11.6)	105 (11.9)	0.80
COPD — no. (%)	207 (13.2)	156 (17.7)	0.002
Prior myocardial infarction — no. (%)	612 (39.0)	146 (16.6)	<0.001
Prior CABG — no. (%)	203 (12.9)	51 (5.8)	<0.001
Prior PCI — no. (%)	48 (3.1)	16 (1.8)	0.07
Peptic ulcer disease — no. (%)	94 (6.0)	74 (8.4)	0.02
Hepatitis or cirrhosis — no. (%)	20 (1.3)	16 (1.8)	0.28
Dementia — no. (%)	76 (4.8)	49 (5.6)	0.43
Hemoglobin <10 g/dl — no. (%)	155 (9.9)	186 (21.1)	<0.001
Mean systolic blood pressure — mm Hg	146	156	<0.001
Mean respiratory rate — breaths/min	26	26	0.17
Serum sodium <136 mmol/liter — no. (%)	362 (23.1)	209 (23.8)	0.70
Serum creatinine >150 mmol/liter — no. (%)	296 (18.9)	195 (22.2)	0.95
Dialysis — no. (%)	18 (1.1)	9 (1.0)	0.78

N Engl J Med 2006;355:260-9.

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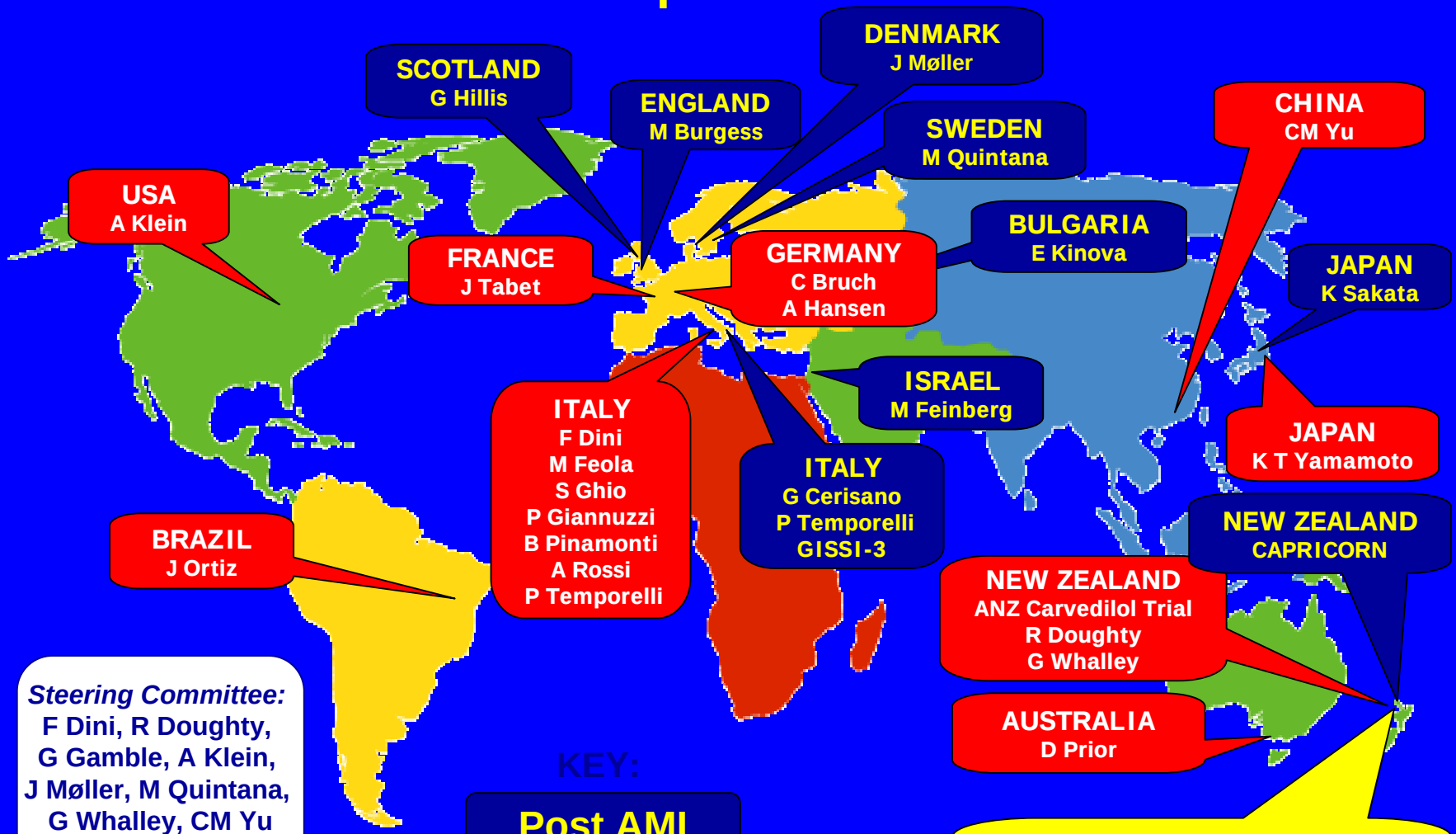
MeRGE Principal Collaborators



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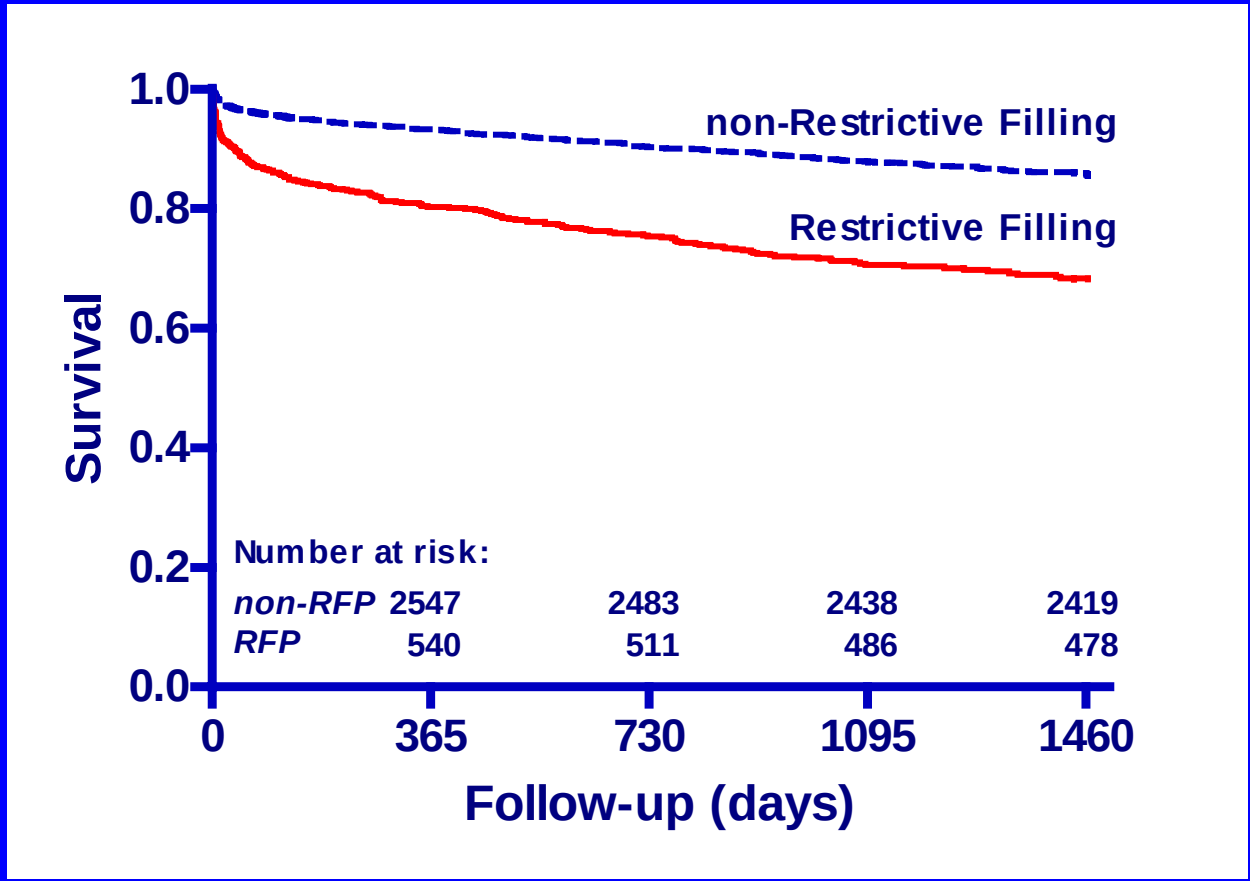
Mortality by Restrictive Filling Pattern in Acute Myocardial Infarction



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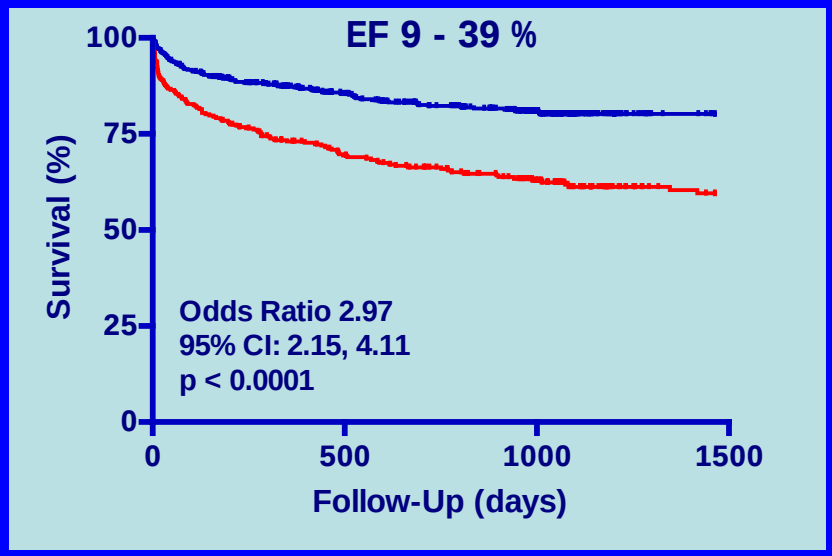
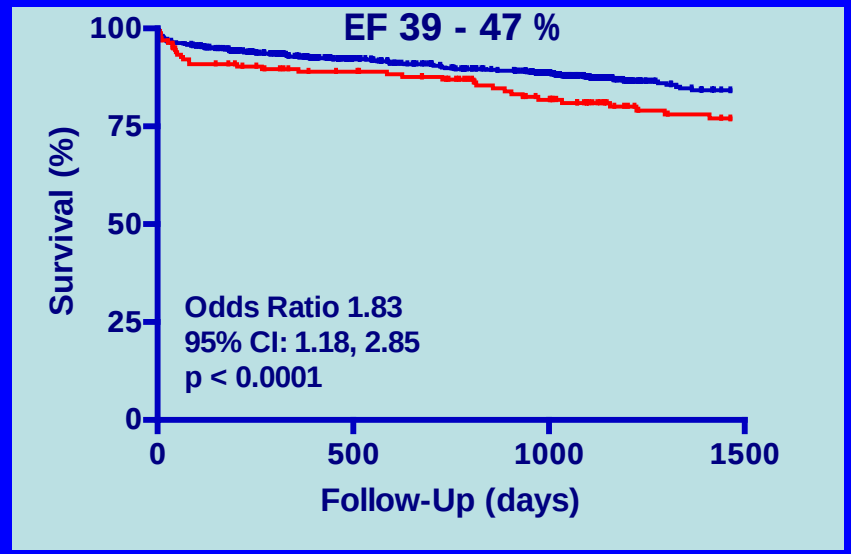
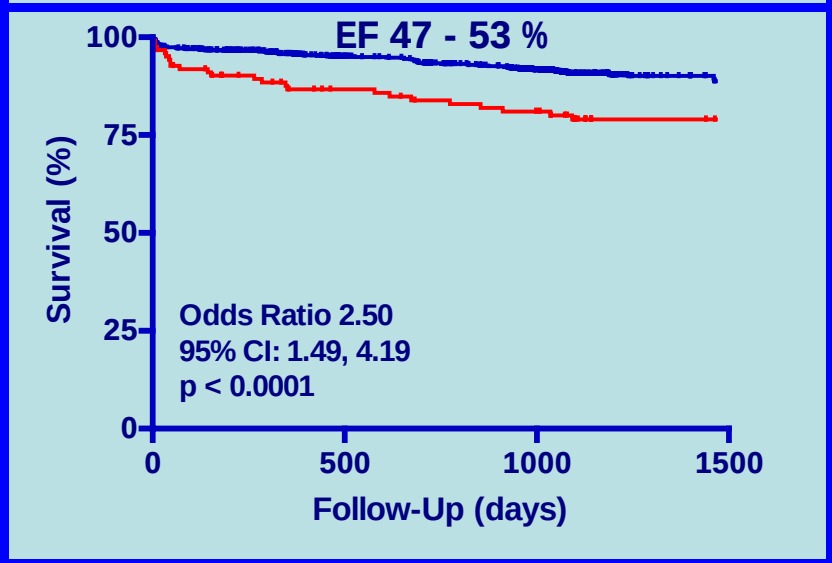
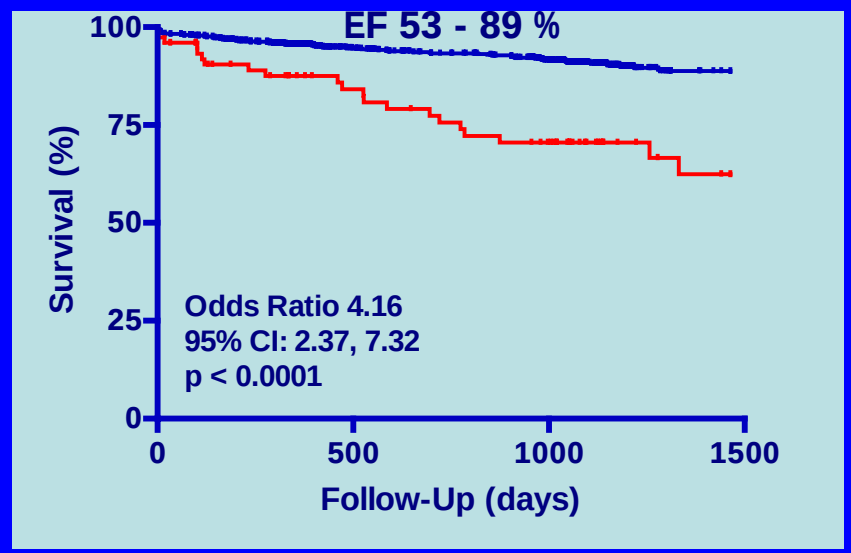
All-Cause Mortality in AMI – by Quartiles of EF









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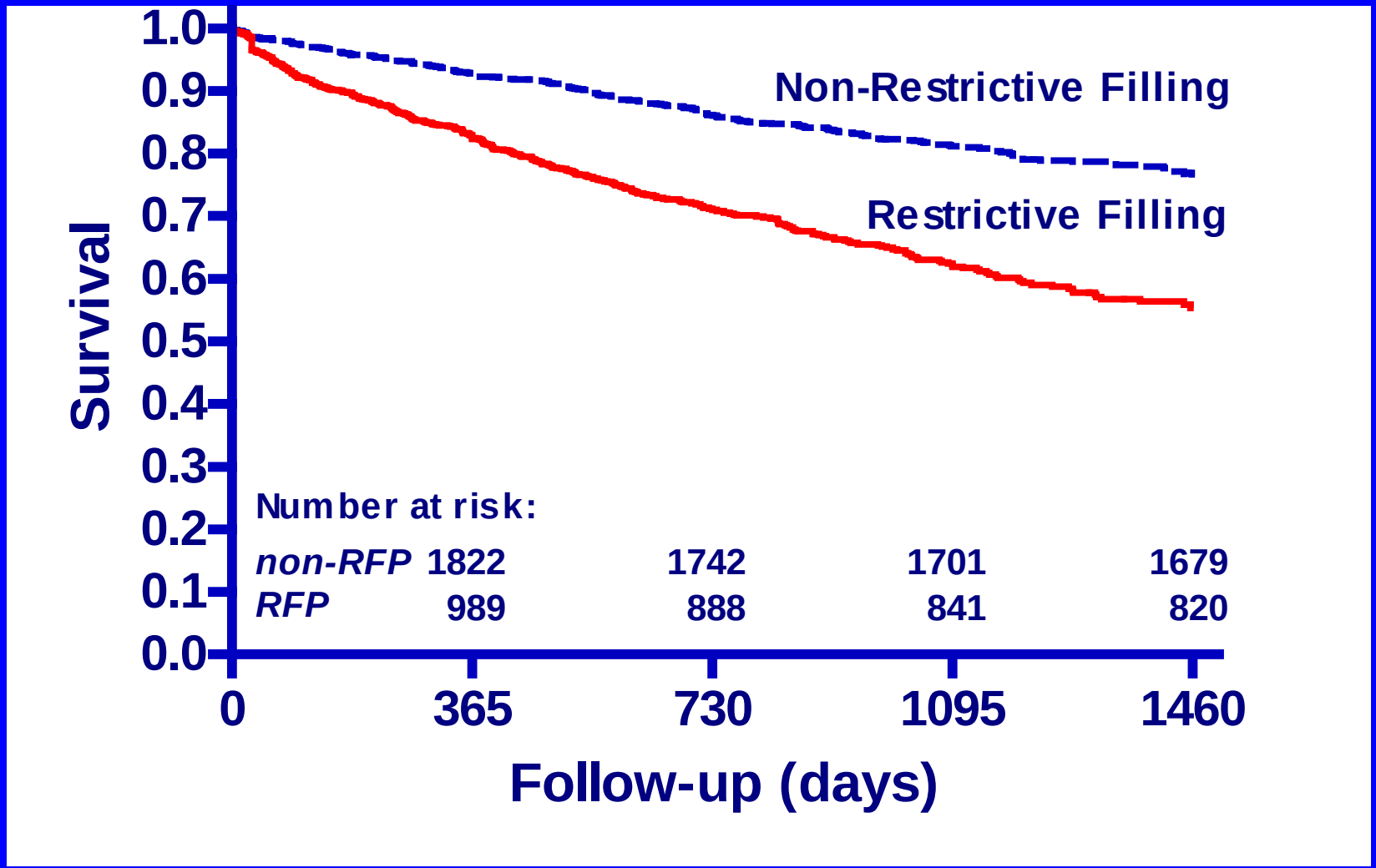
Mortality by Restrictive Filling Pattern in Heart Failure



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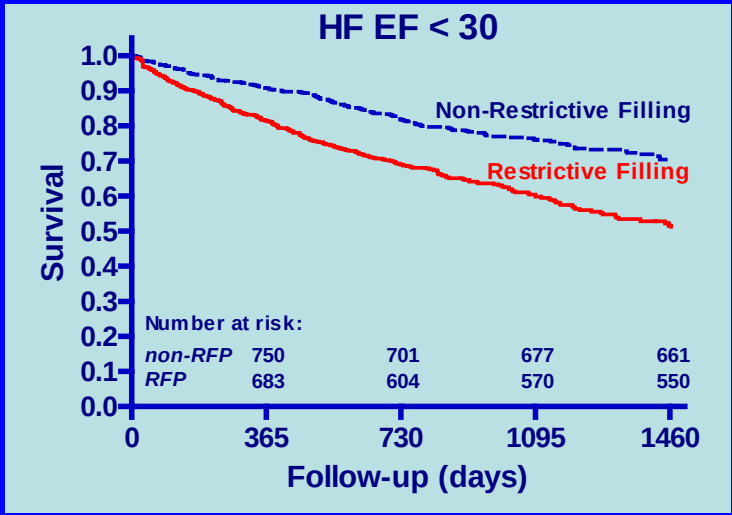
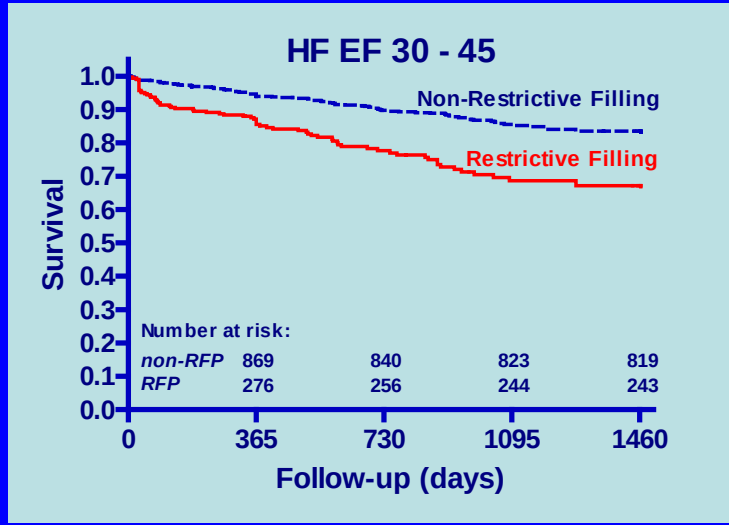
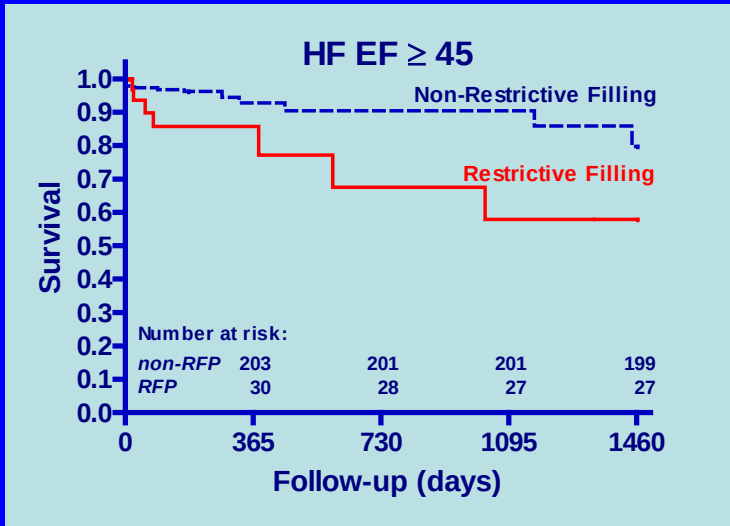
Mortality by Restrictive Filling Pattern – EF in Heart Failure







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SOMBRAS

De que se mueren los pacientes con ICC y FE conservada?

Como mejorar el pronóstico?

Como llevar a cabo ensayos clínicos?

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LUCES

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LUCES

El problema existe
Hay maneras de diagnosticarlo
Existen problemas alternativos