

## Case presentation

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ICCU  
Ospedale Maria Vittoria  
ASL TO2

LG, age 72, male, past smoker

1997 anterior MI

1998 CABG: LIMA-LAD, RIMA- right posterior descending artery

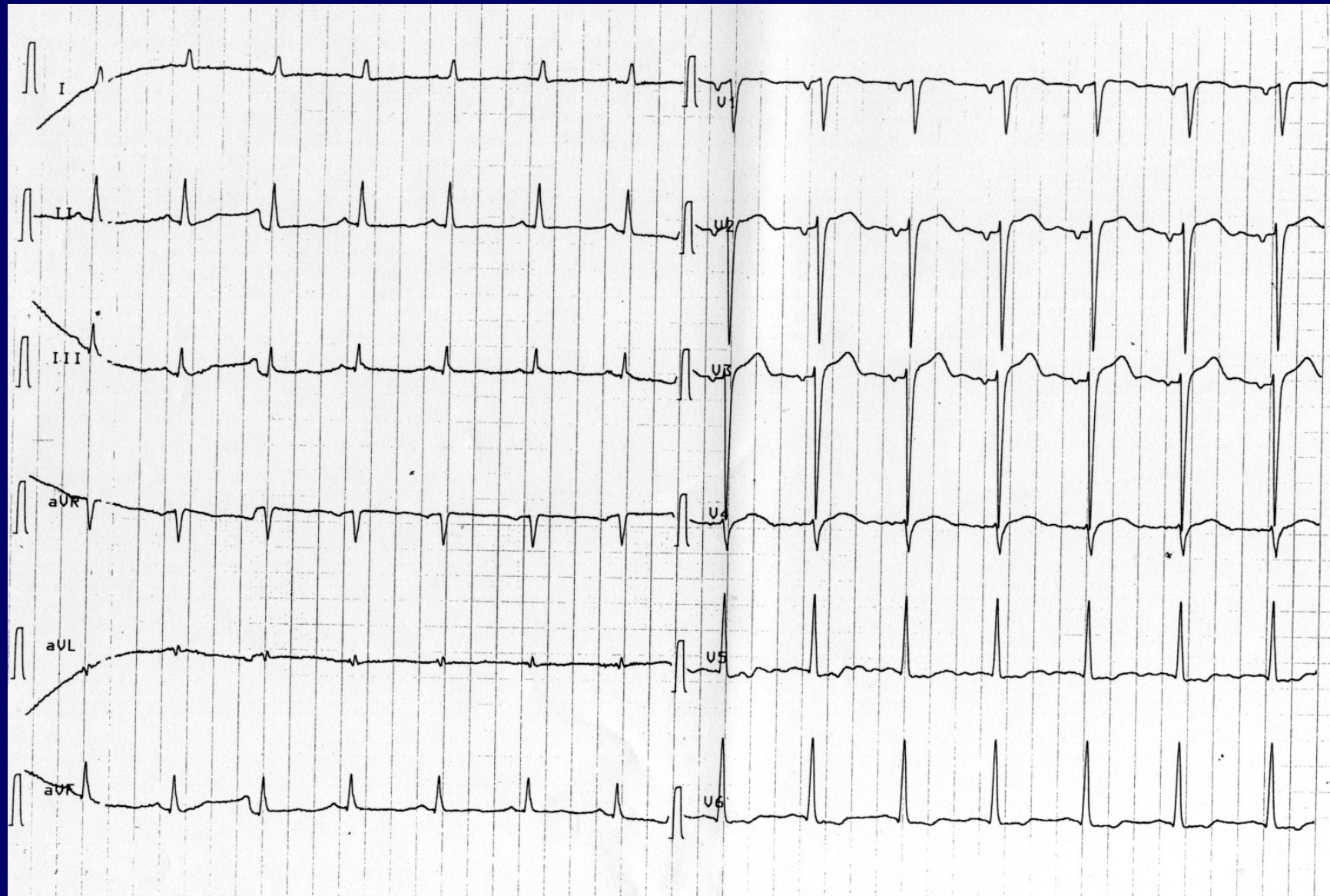
1/2004 Heart failure admission: pulmonary edema

ECHO: EF 20%, Severe mitral regurgitation

Coronary angiography: LAD and RIMA occluded; LIMA open

12/2004 ICD implanted

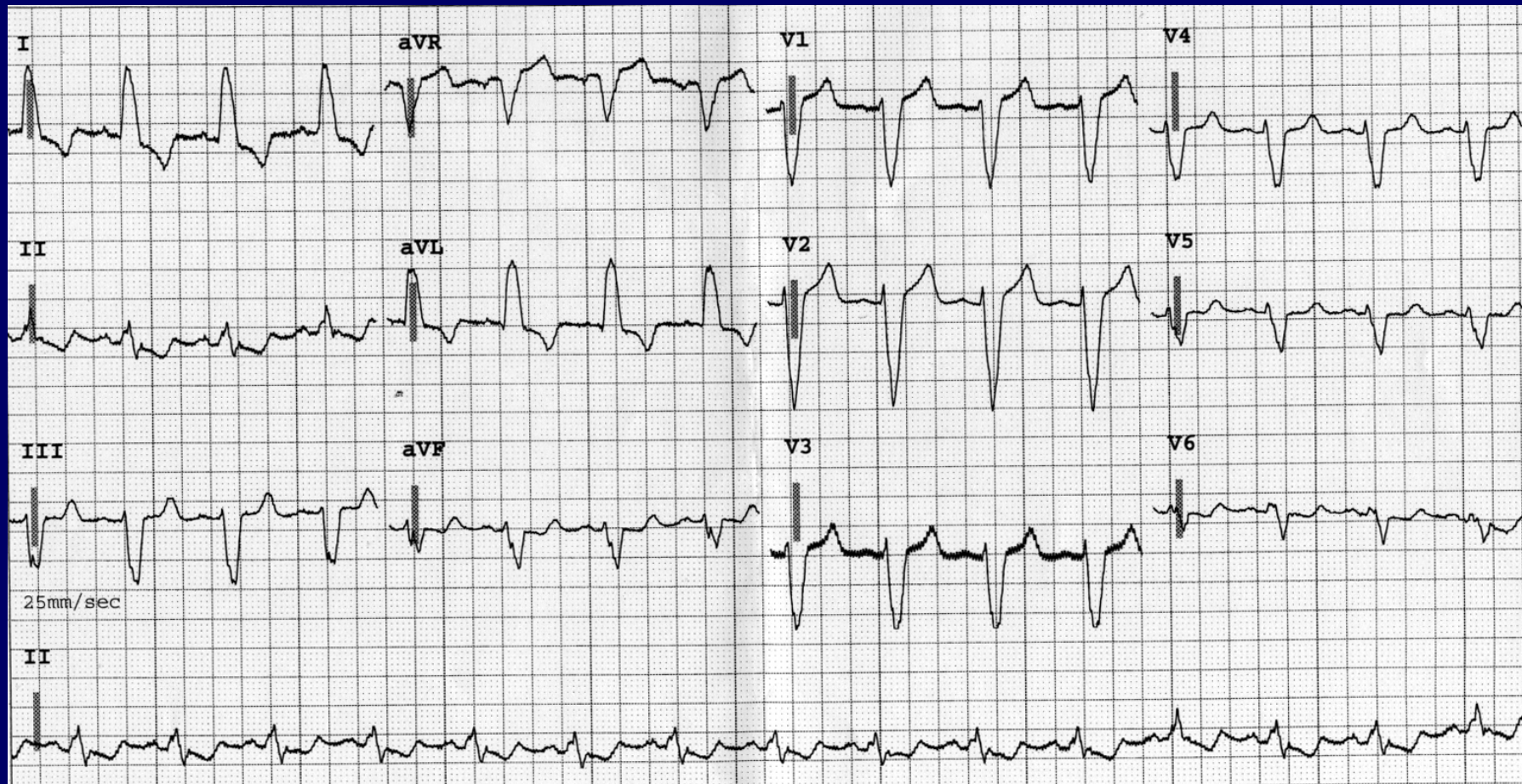
12 / 2004



ECHO: not evidence of desynchronization



- 2005 ischemic stroke (no atrial fibrillation): warfarin
- 1/2006 FV successfully treated by ICD shock
- 2/2006 Thyreotoxicosis: amiodarone interrupted
- 5/2006 Heart failure (pulmonary edema)
- 8/2006 Heart failure (cardiogenic shock, cachessia)



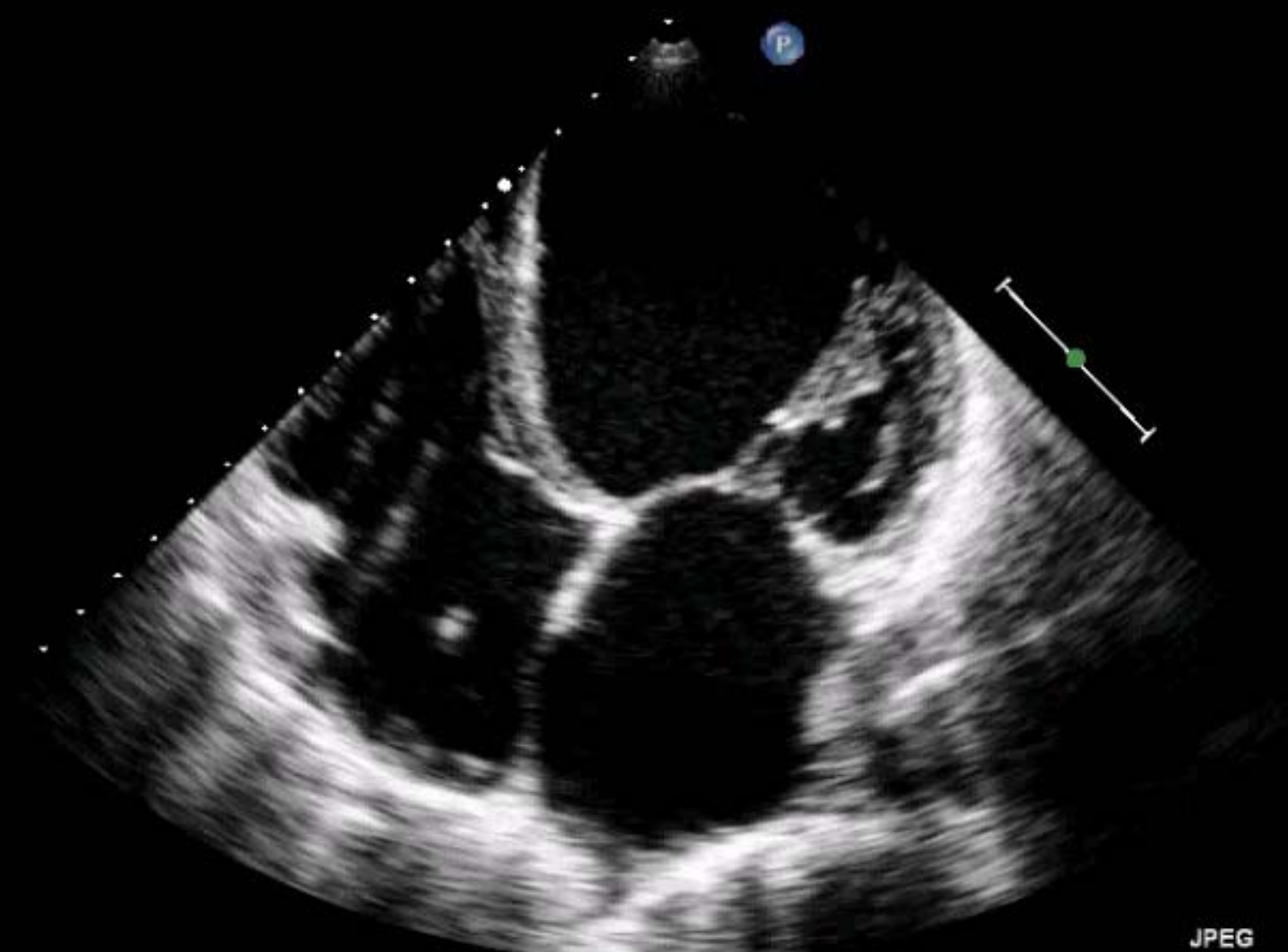
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S5-1/Adulti

FR 45Hz  
18cm

M3

2D  
60%  
C 50  
P Bassa  
AGen



JPEG

91 bpm

01280820090305

S5-1/Adulti

FR 11Hz  
17cm

2D  
57%  
C 50  
P Bassa  
AGen  
CF  
66%  
2.5MHz  
WF Alto  
Med.

M3 M4  
+61.6



JPEG

88 bpm



01280820090305

S5-1/Adulti

FR 13Hz

18cm

2D

59%

C 50

P Bassa

AGen

CF

66%

2.5MHz

WF Alto

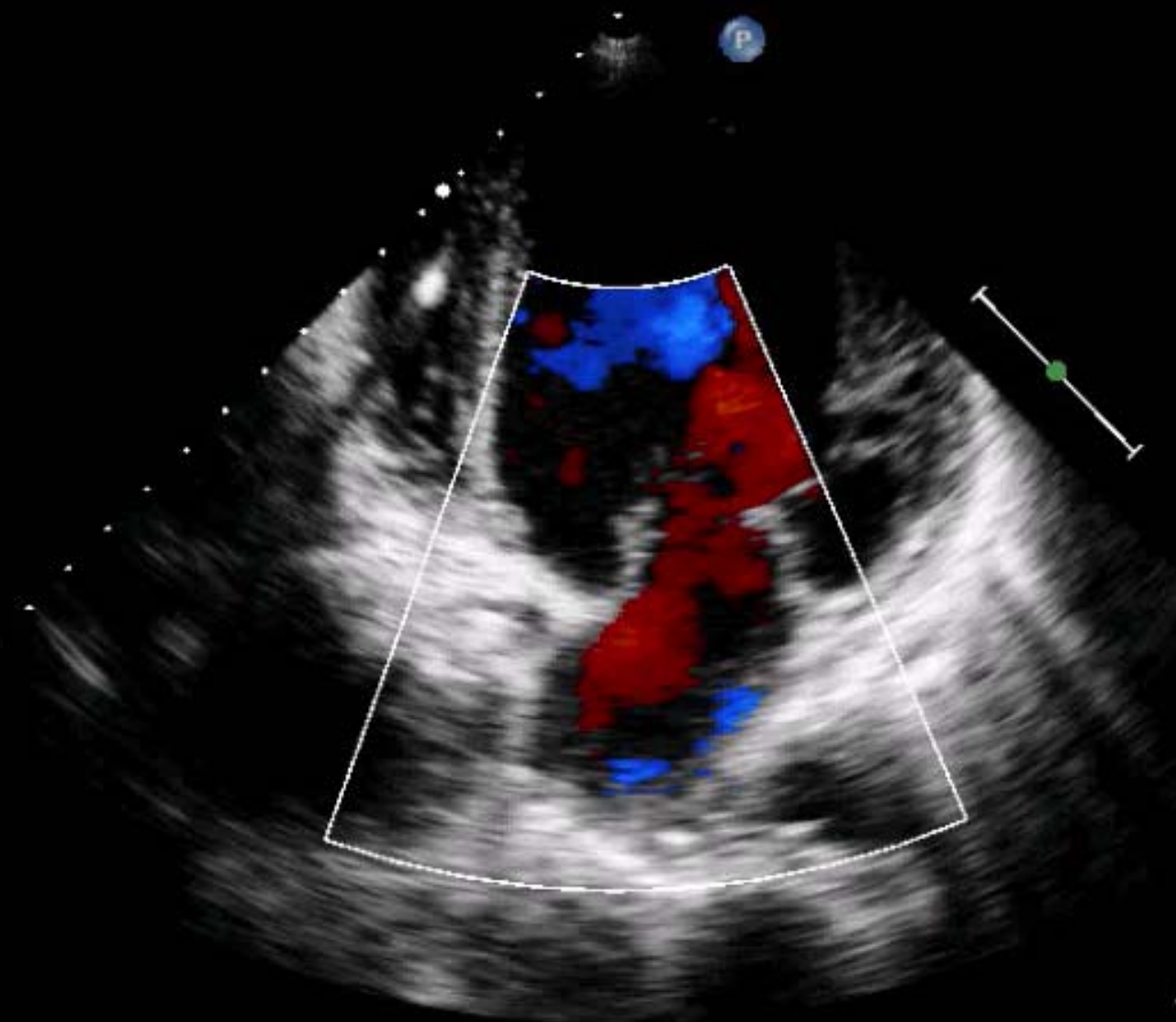
Med.

M3 M4

+61.6



-61.6  
cm/s



JPEG

87 bpm

Right coronary artery

RIMA





# Therapy ?

- Surgical revascularization ?
- Percutaneous revascularization ?
- Mitral valve repair ?
- Resynchronization therapy ?

## Mitral valve repair: too high surgical risk

9/2006 ICD was converted to biventricular pacing

2007 NYHA II-III

3/2007 Atrial fibrillation

10/2007 ECHO: EF 22%

10/2008 pacemaker elective replacement time  
Evidence of very high threshold of coronary sinus lead and diaphragmatic stimulation.  
Device replacement.  
Failure of new lead implantation, absence of other veins.  
Bifocal right ventricular stimulation (apex and basal septum)

2/2009 NYHA III, astenia, not dyspnea

Therapy: digitalis 0.125 mg, furosemide 125 + 25 mg,  
spironolactone 25, bisoprolol 1.25, losartan 12.5,  
simvastatin, warfarin

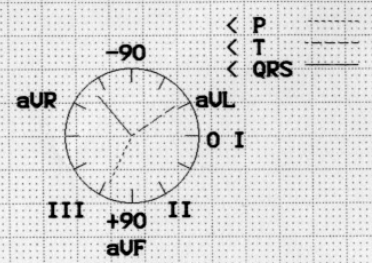
16/2/2009 Admitted (severe astenia and cachessia)  
BP 75/50  
No rales, no edemi  
ECG: Paced with frequent ventricular tachycardia



GE MAC1200 ST , , A.S.L TO 2 OMU CARDIOLOGIA

FC 87/min

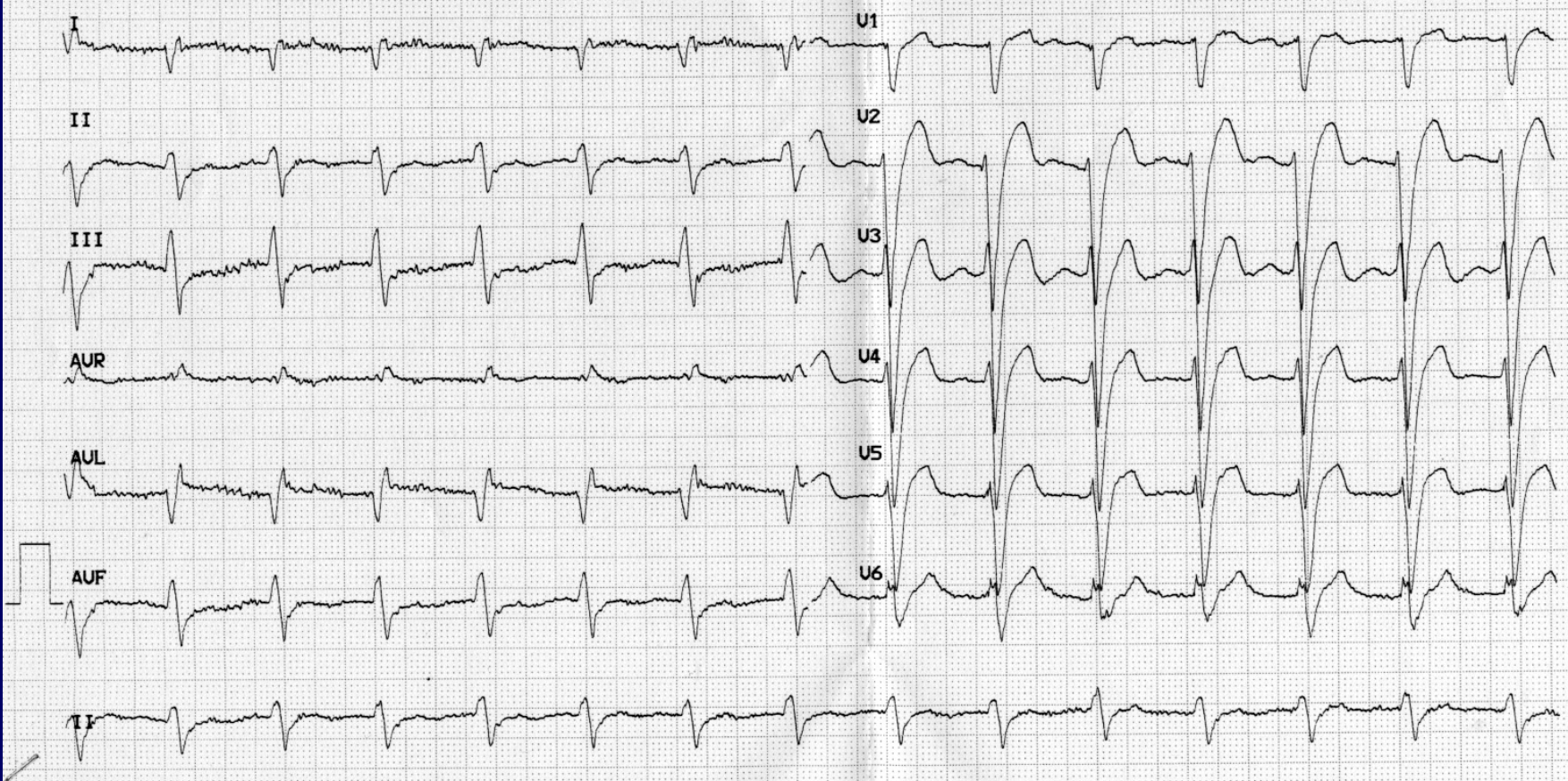
Risultati dell'Esame:  
 QRS : 162 ms  
 QT/QTcB : 418 / 502 ms  
 PQ : ms  
 P : 110 ms  
 RR/PP : 688 / 415 ms  
 P/QRS/T : 116/ 229/ -35 Gradi



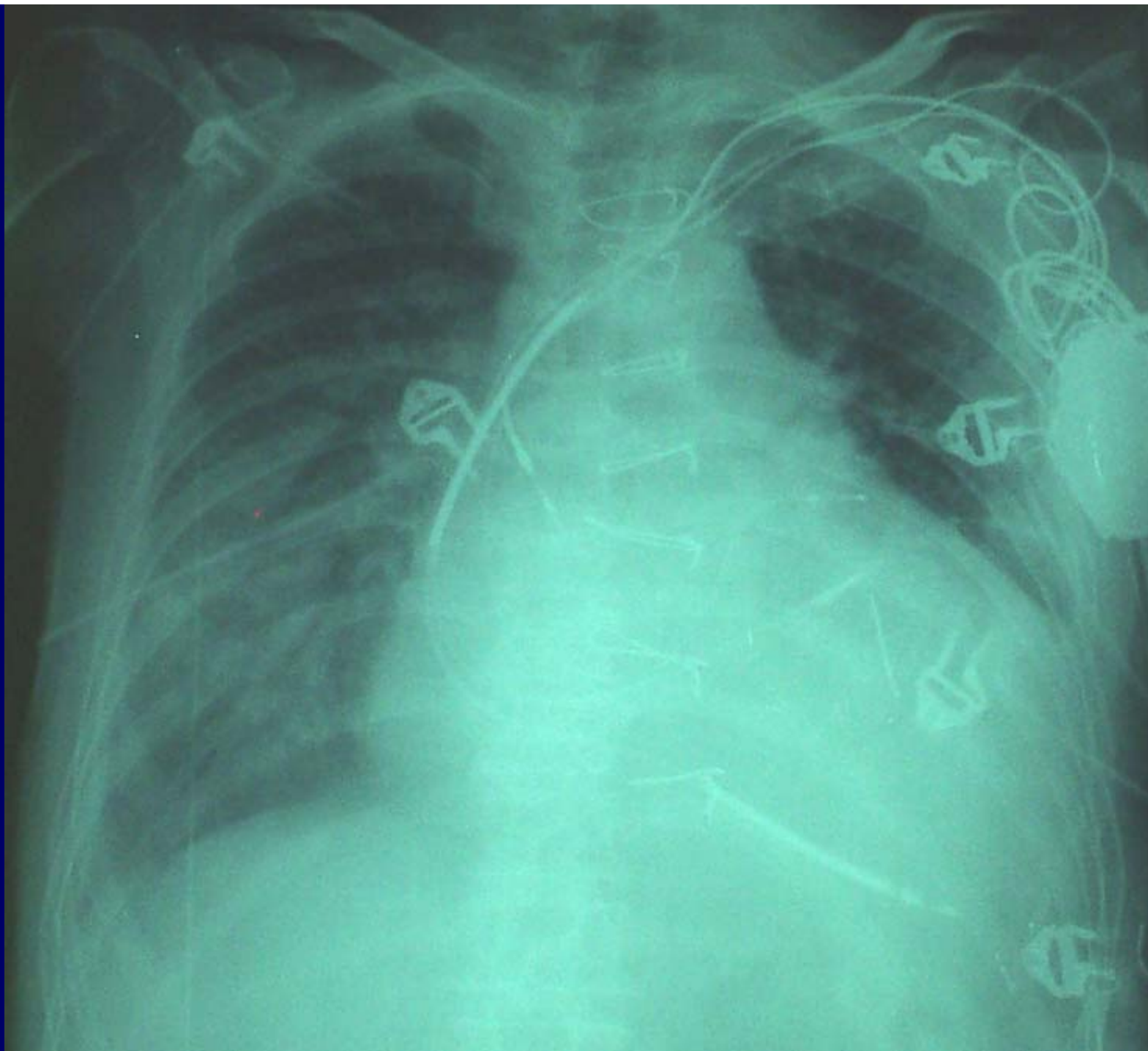
Interpretazione:

PAO 80/60

rapporto non confermato.







PHILIPS

05/03/2009 08:38:13

TISO.

PHILIPS

05/03/2009 08:37:41

TISO.

ASL 3 Cardiologia

S5-1/Adulti

ASL 3 Cardiologia

S5-1/Adulti

FR 45Hz  
18cm

9:50:25

FR 45Hz  
18cm

9:49:54

2D  
60%  
C 50  
P Bassa  
AGen

2D  
60%  
C 50  
P Bassa  
AGen



× A4Cs

Lunghezza LV 7.97 cm  
Area LV 41.4 cm<sup>2</sup>

ESV (A4C) 171 ml  
EF (A4C) 20 %

× A4Cd

Lunghezza LV 8.88 cm  
Area LV 49.3 cm<sup>2</sup>

EDV (A4C) 215 ml



17/2

anuria

BP 85/50

EGA

pH 7.49

pCO<sub>2</sub> 32 mmHg

pO<sub>2</sub> 72 mmHg

HCO<sub>3</sub><sup>-</sup> 24.4mmol/L

BE 1.5 mmol/L

Serum creatinine 3.2

Na 132 K 4,2

# Therapy ?

- Medical therapy
  - Dopamine
  - Levosimendan
  - Furosemide infusion
  - Vasodilators
- Hemodialysis
- IABP
- Left ventricular assist device
- Coronary revascularization
- CRT optimization
- Mitral valve repair

- Dopamine (5  $\mu$  /kg/min)
- Furosemide infusion (1 g)
- Levosimendan  
=> diuresis 500

18/2    Dyspnea

BP 92/50

Pulmonary congestion

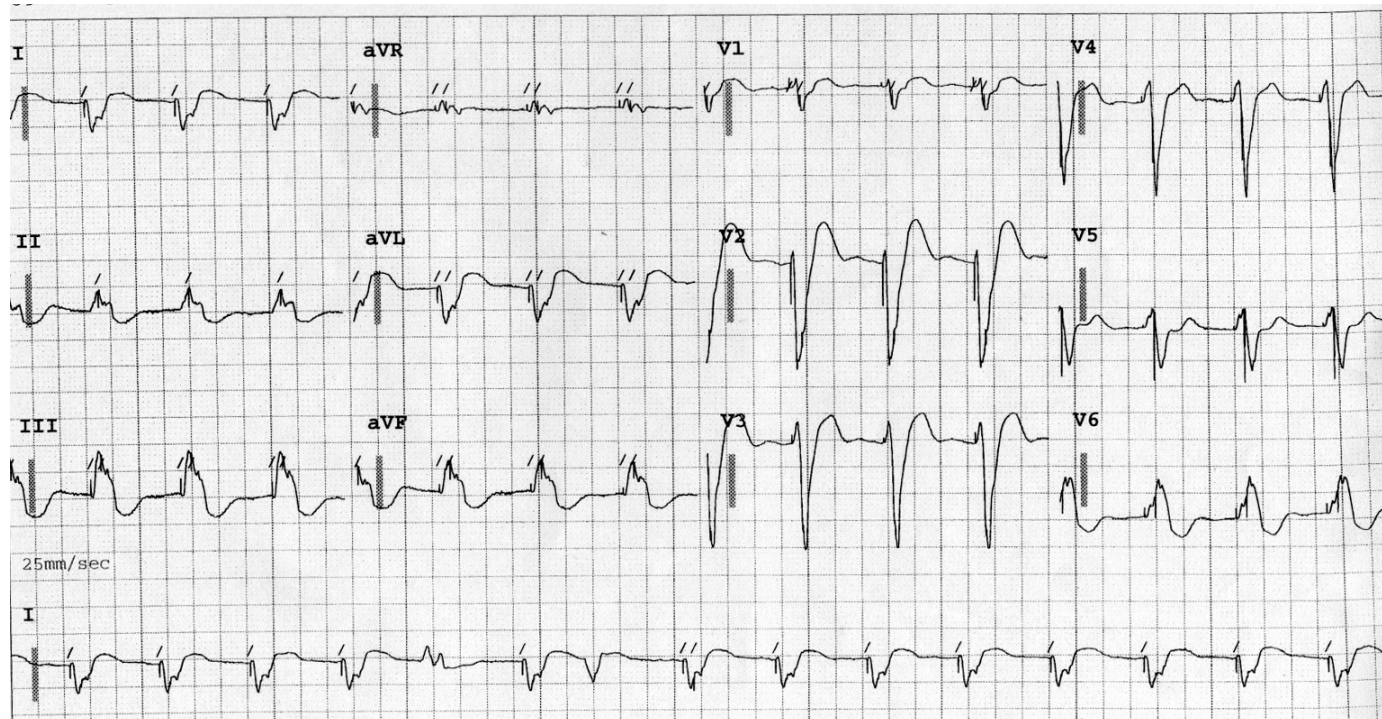
- Sodium nitroprusside 0,1  $\mu$  /kg/min

19/2    BP 85/50

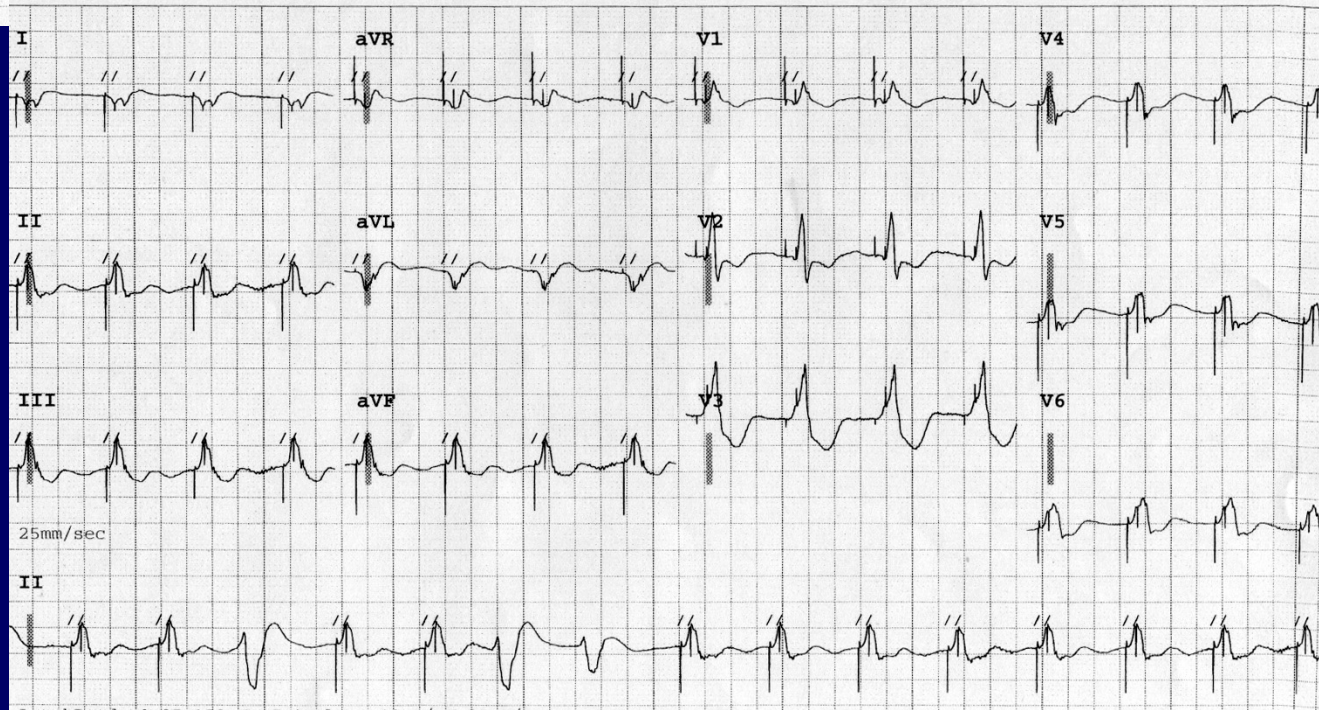
diuresis 1200 cc

Serum creatinine 5





LarghBanda 0.05-150 Hz Stimolato 10mm/mV 25mm/sec



LarghBanda 0.05-150 Hz Stimolato 10mm/mV 25mm/sec

20/2 BP 103/60  
diuresis 2000  
creatinine 5.5  
non sustained ventricular tachycardia  
=> Amiodarone and lidocaine infusion

22/2 Dyspnea, SpO2 89%  
anuria  
creatinine 6.2  
=> CPAP  
=> Amiodarone and lidocaine interrupted  
=> Metolazone 10 mg added

After 6 hours urine output 80 cc/h

24/2 BP 95/60

diuresis 6300,  
creatinine 5.4

26/2 diuresis 8500 cc

creatinine 3.8

27/2 BP 95/60

diuresis 4000

creatinine 2.5

6/3 Rehabilitation ward

Warfarin

Ramipril 2.5 mg

Furosemide 50 mg bid

Spiroonolactone 50 mg

Digitalis 0.0625 mg

Bisoprolol 1.25 mg

