

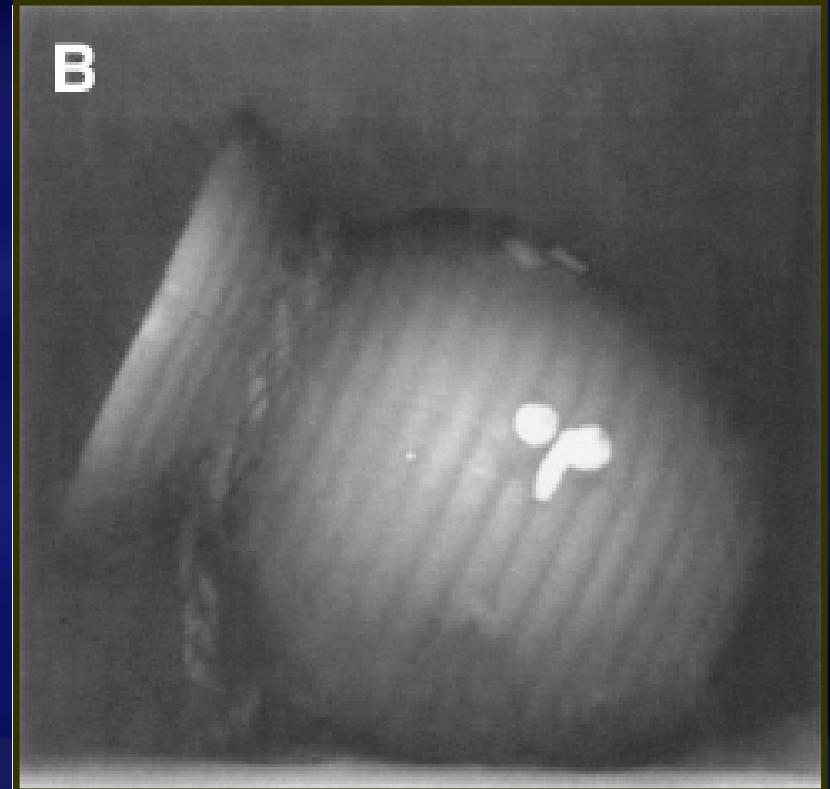
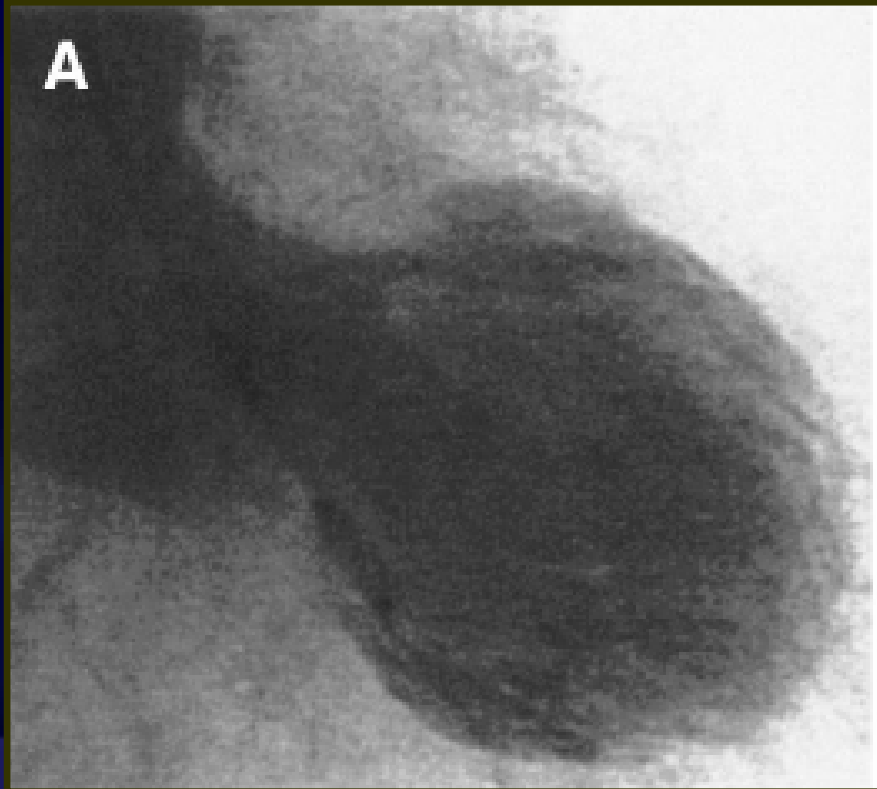
# **Stress Induced Cardiomyopathy**

# History

- Satoh et al., 1990
  - Takotsubo-type cardiomyopathy due to multivessel spasm
- Tsuchihashi et al., 1997
  - Transient LV apical ballooning
- .., 2002
  -

:

# Takotsubo



## 1

:  
 — , ,  
 : 60 가 3  
 atenolol 50mg, aspirin 100mg ,

12  
 30

가

## 1

: / (-/-)  
30  
3

가

:

: (-), -

## 1

- 83/51mmHg, 36.3C  
65/min, 24/min

- (-)

, (-)

S3,S4 (-)

## 1

: CBC 9600-12.6-257K

GOT/GPT 57/35

BUN/Cr 16.8/0.8

Na/K/Cl/HCO<sub>3</sub> 138-4.2-102-25.1

Chol/TG/LDL/HDL 191-133-131-52

CK/CK-MB/LDH

293/40/943 (1:00 am)

281/36/631 (5:00 am)

231/19/557 (9:00 am)

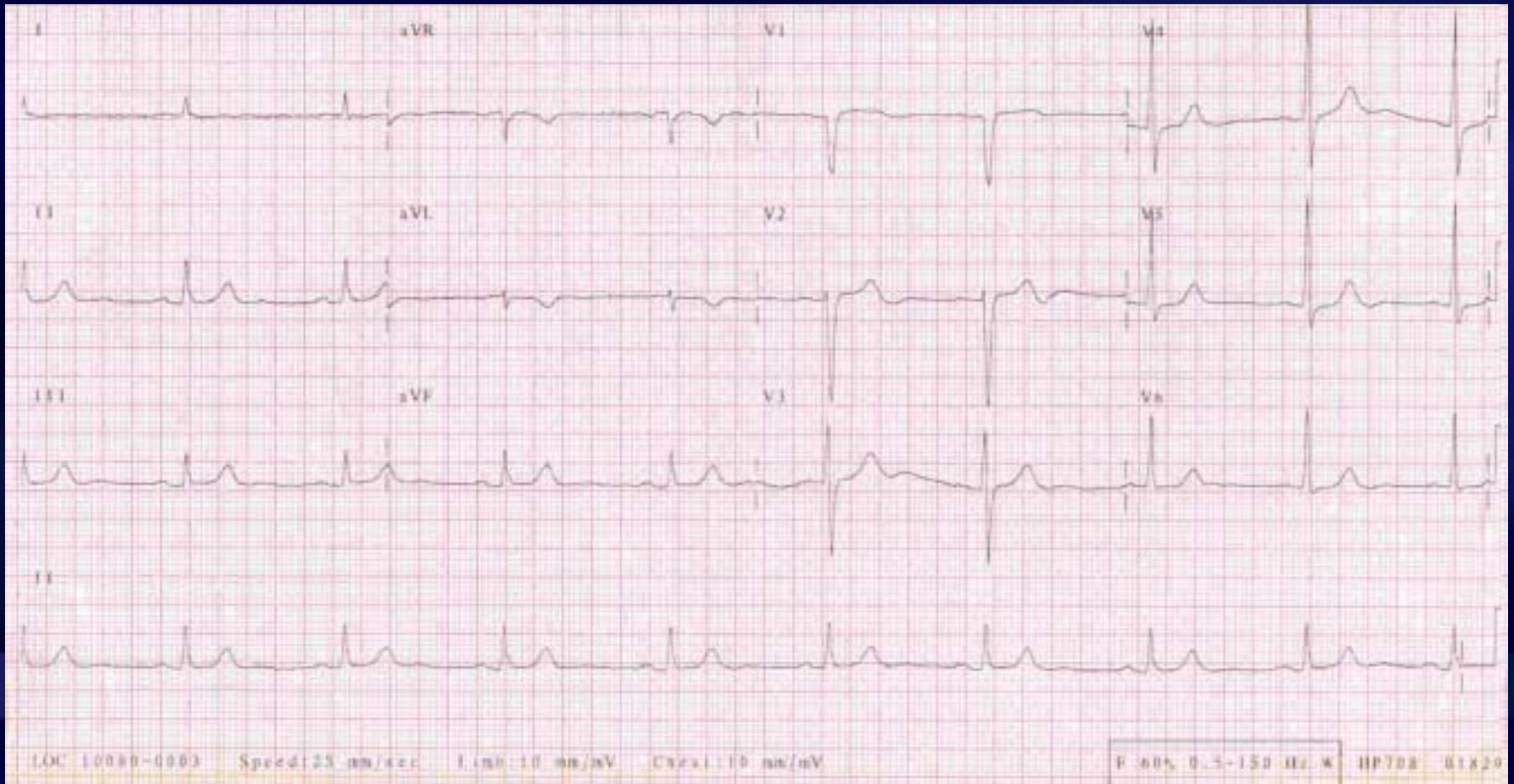
167/14/500 (9:00 pm)

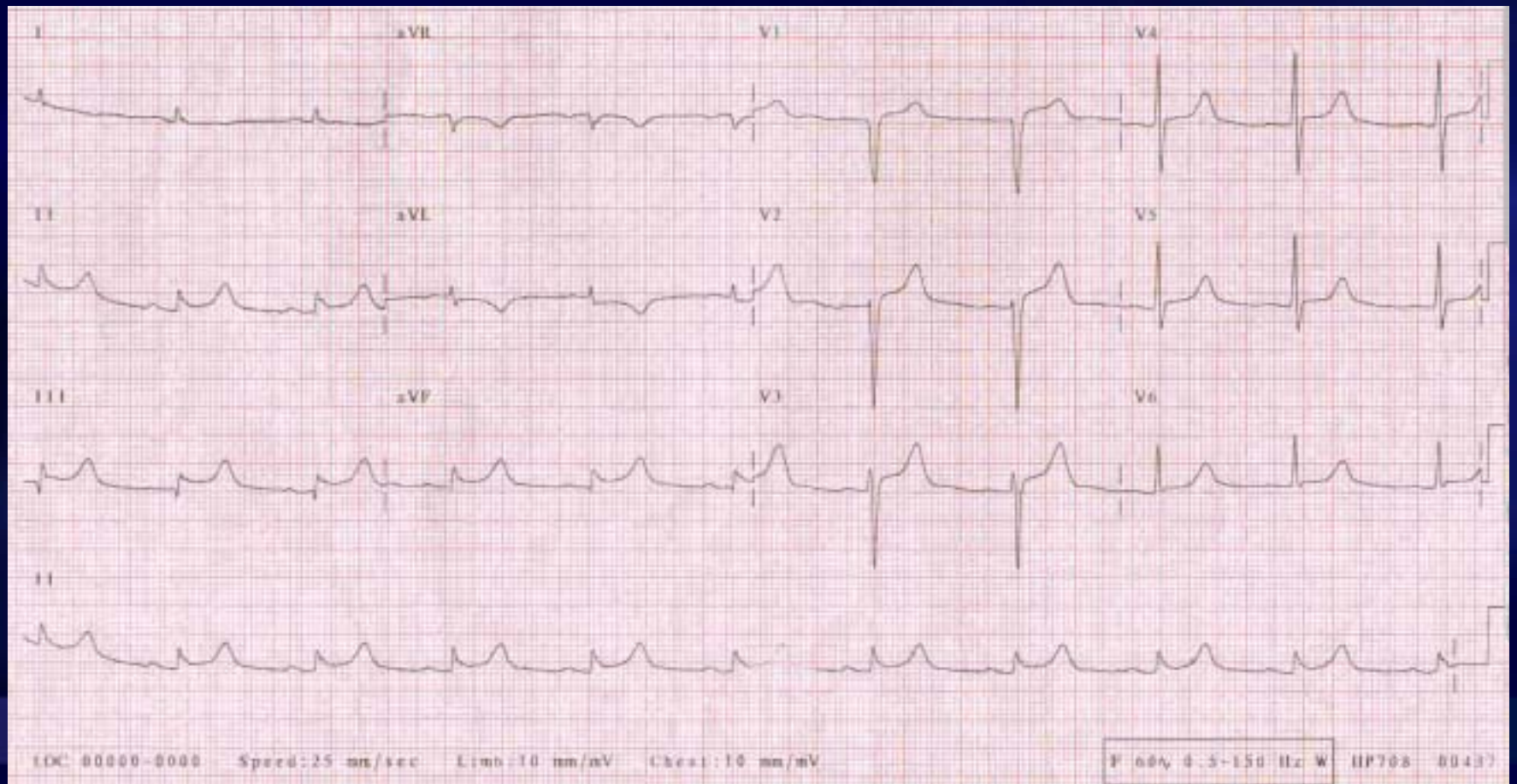
LAP



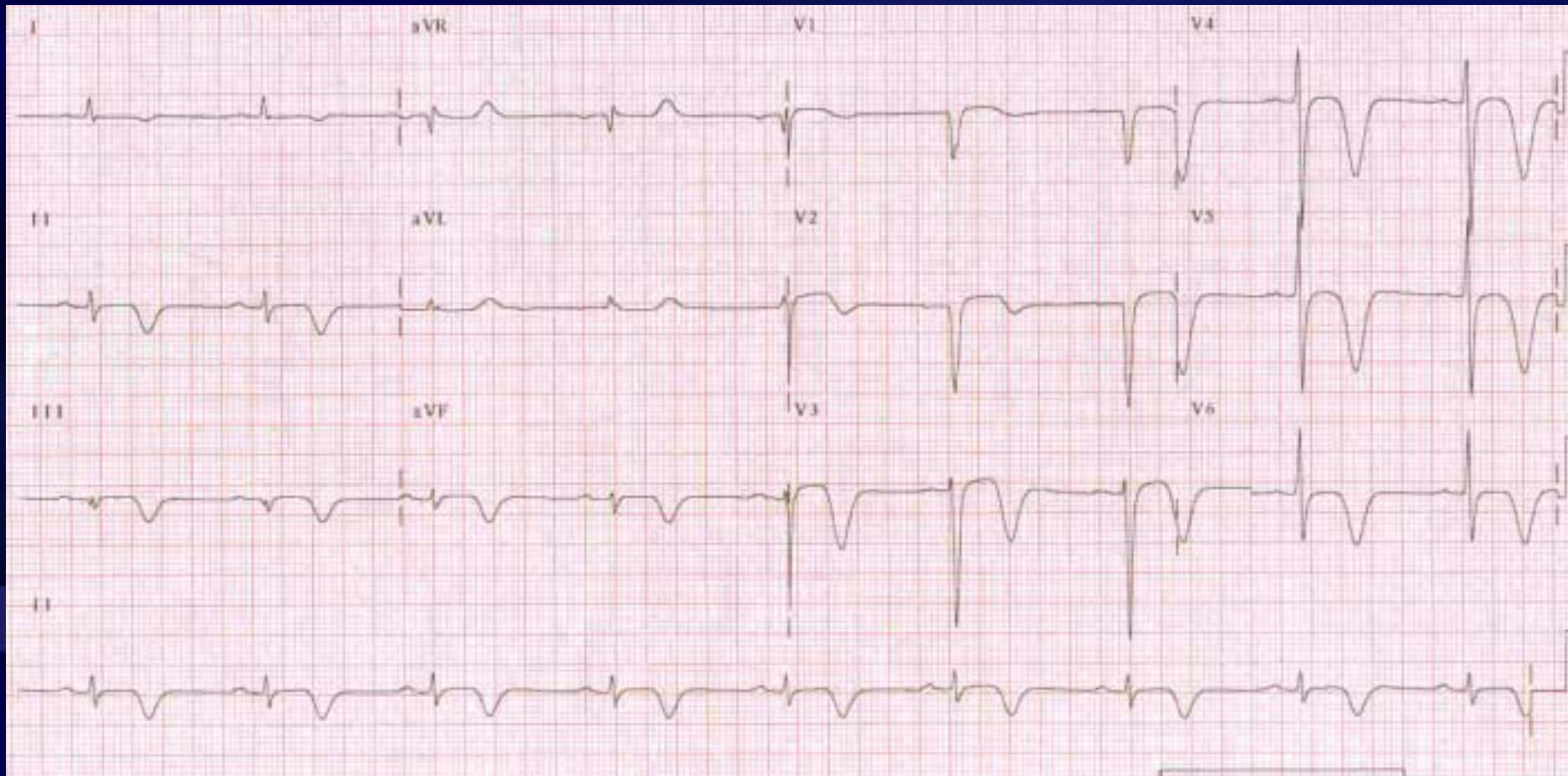


1

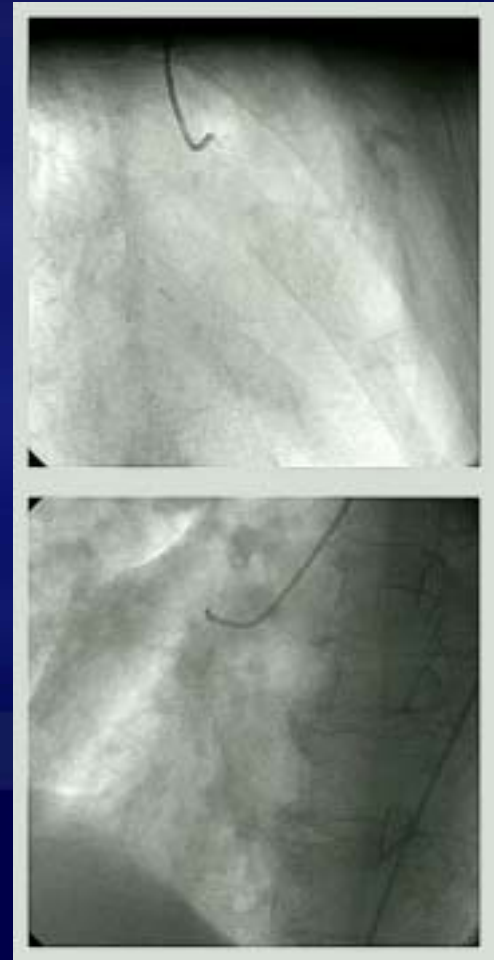
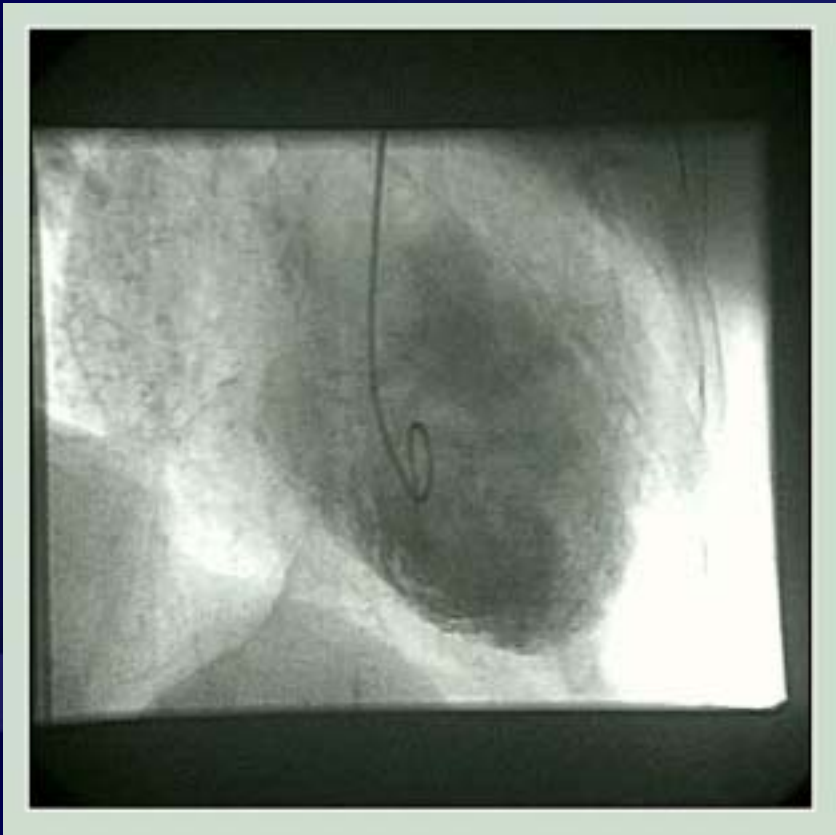




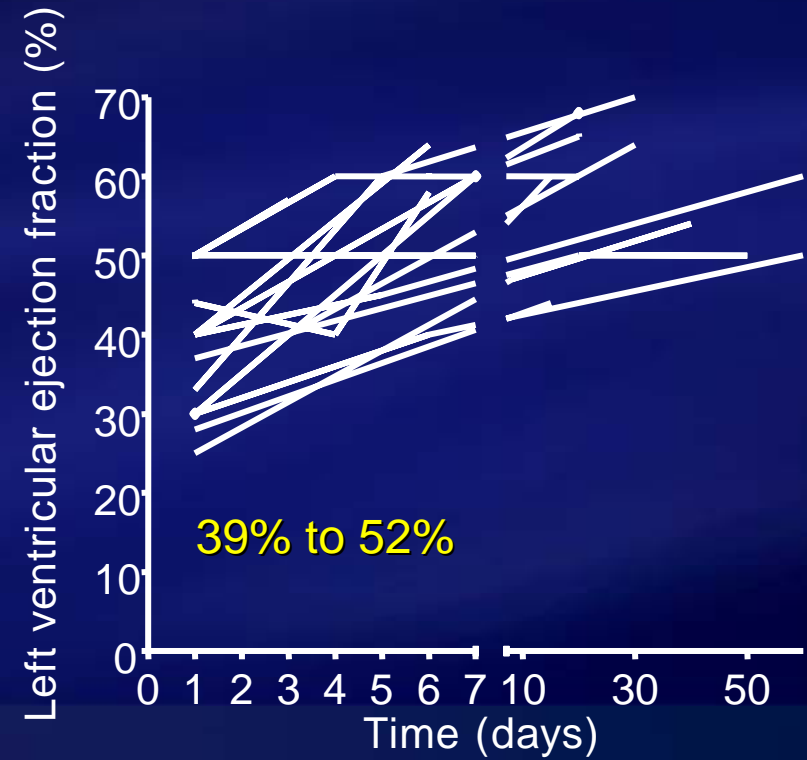
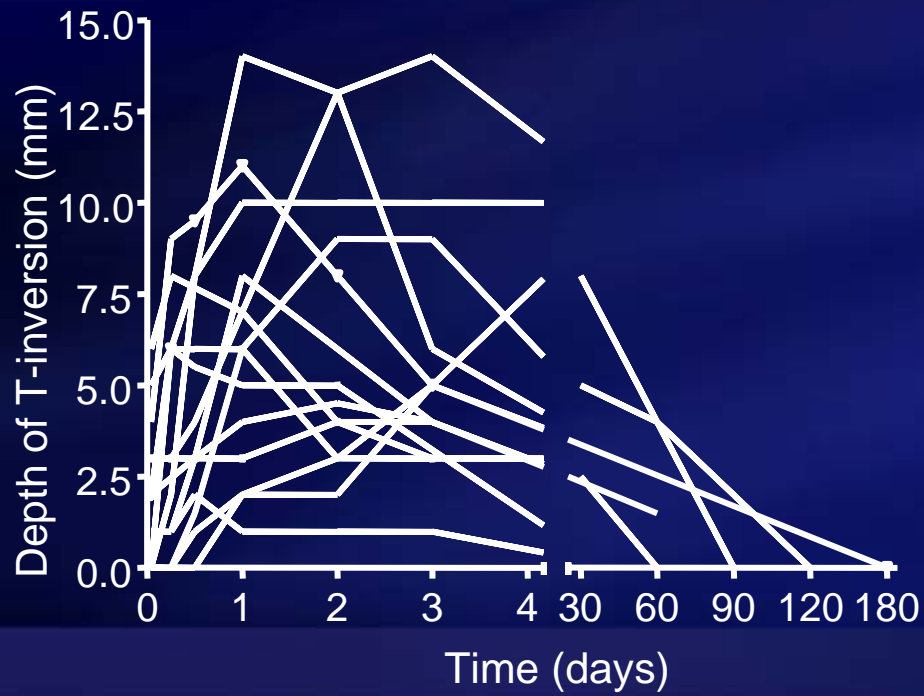
## 9



1







# 2



## 2

: 15

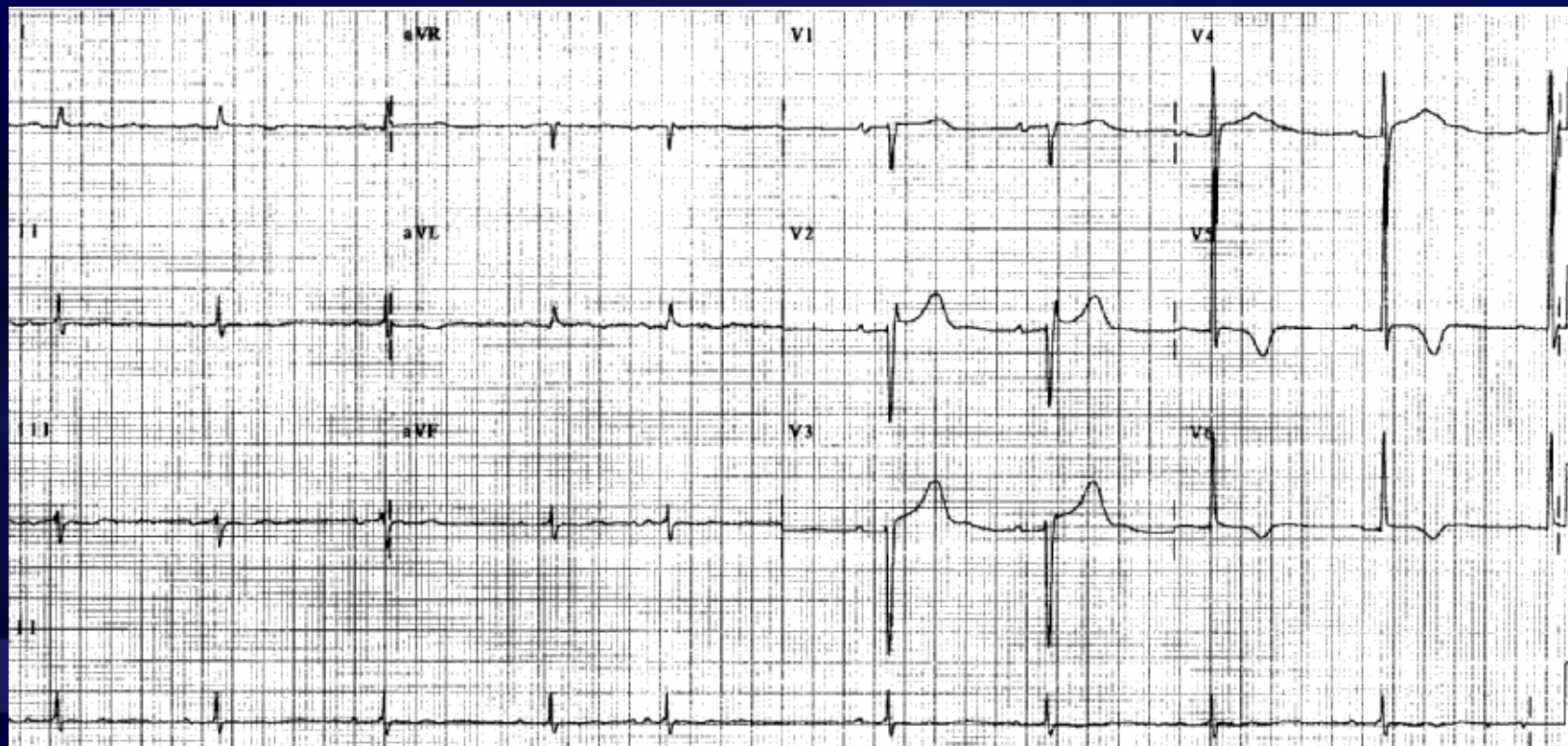
: (-), (-), (-)

- 100/50mmHg, 36.6C  
60/min, 24/min

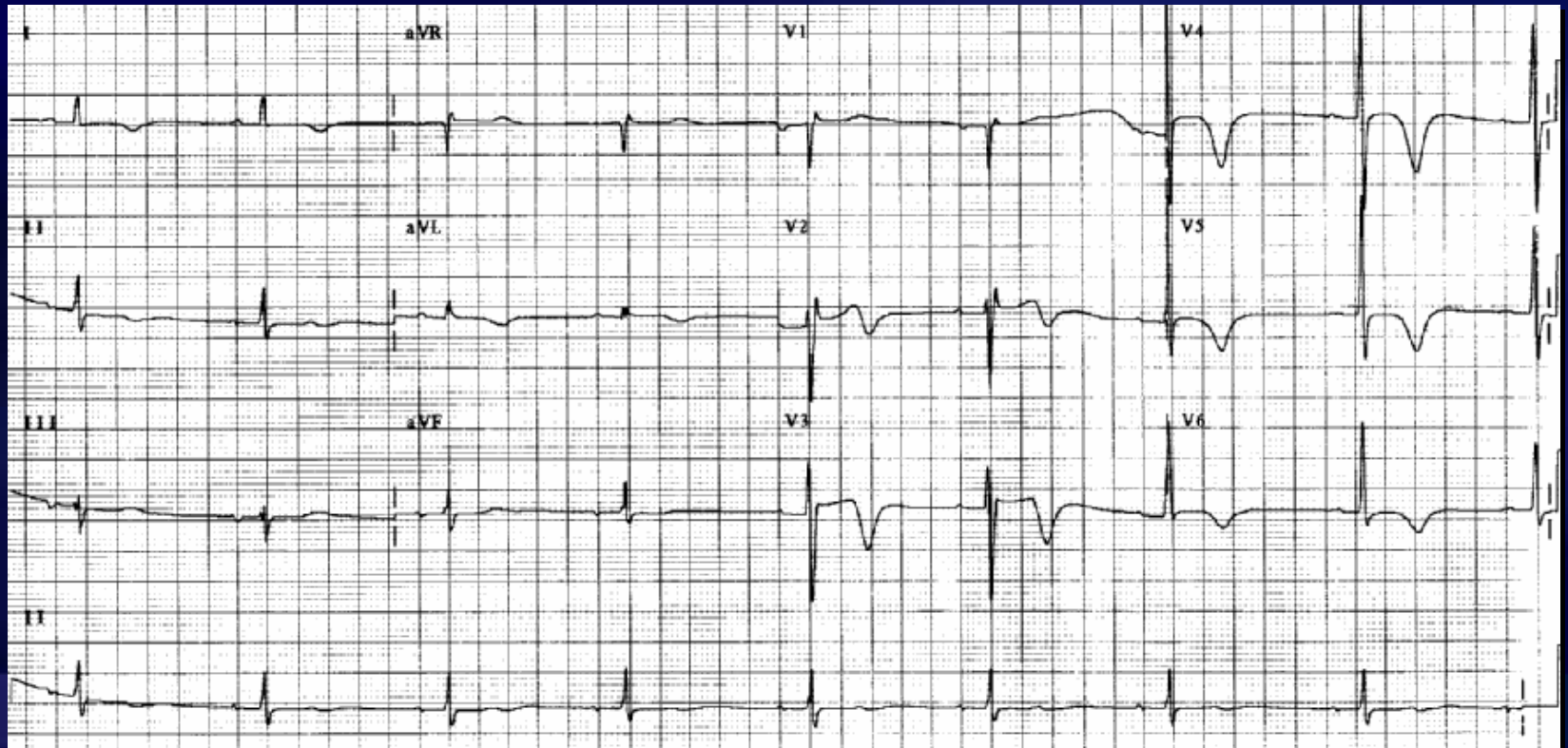
- , (-)  
S3,S4 (-)

- CK(IU/l) / MB(ng/ml) / Tnl(ng/ml)  
129 / 6.19 / 4.24

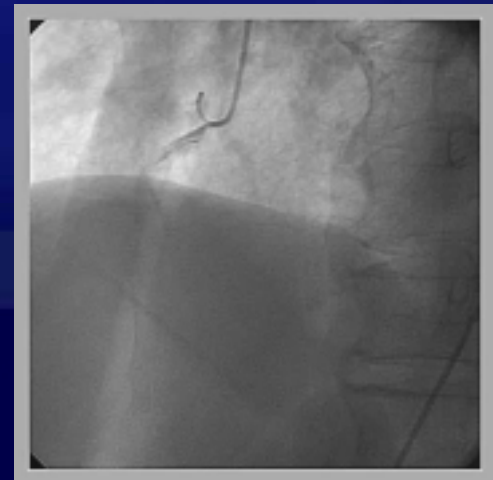
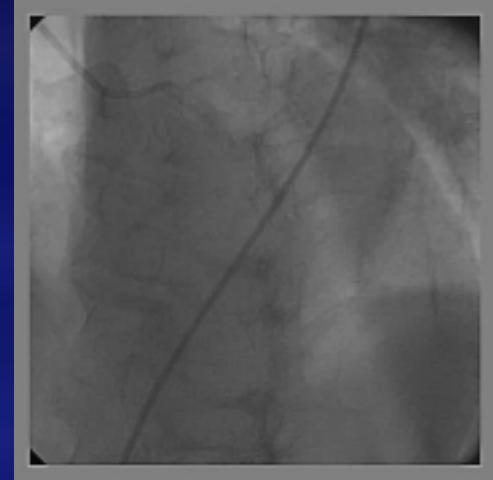
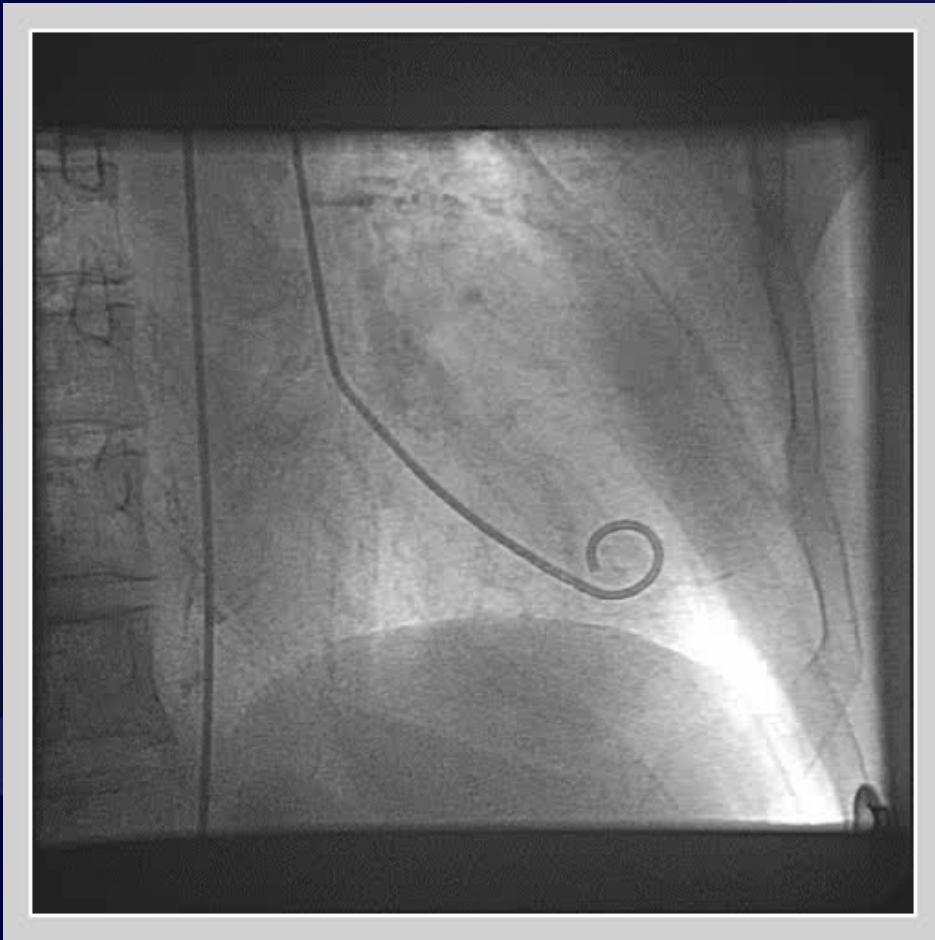




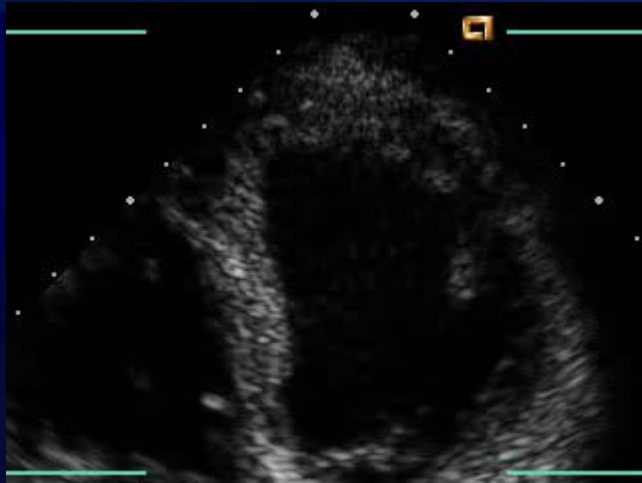
## 2



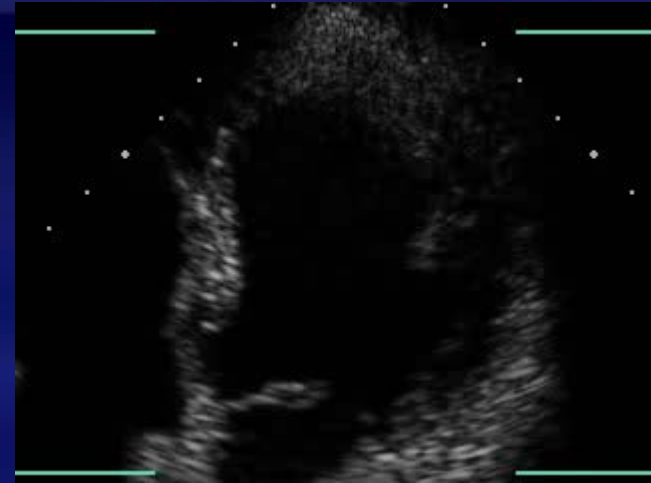




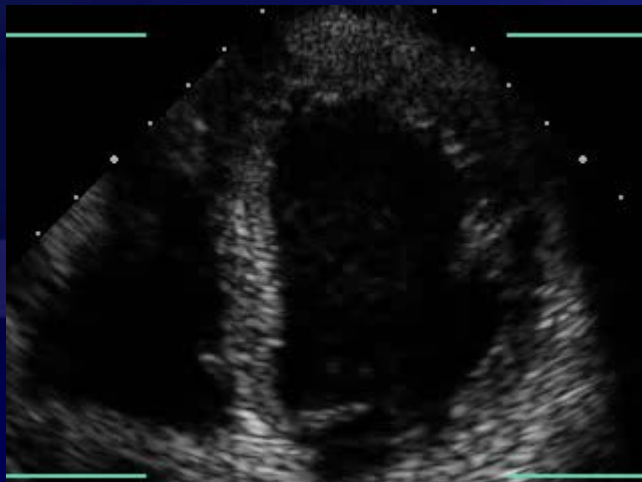
**B**



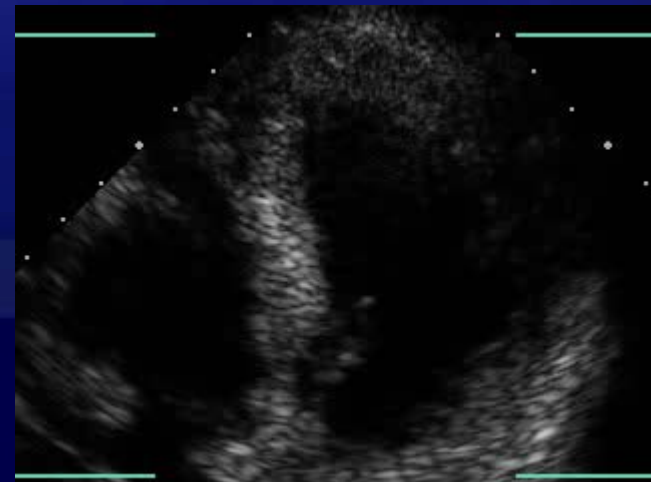
**5**

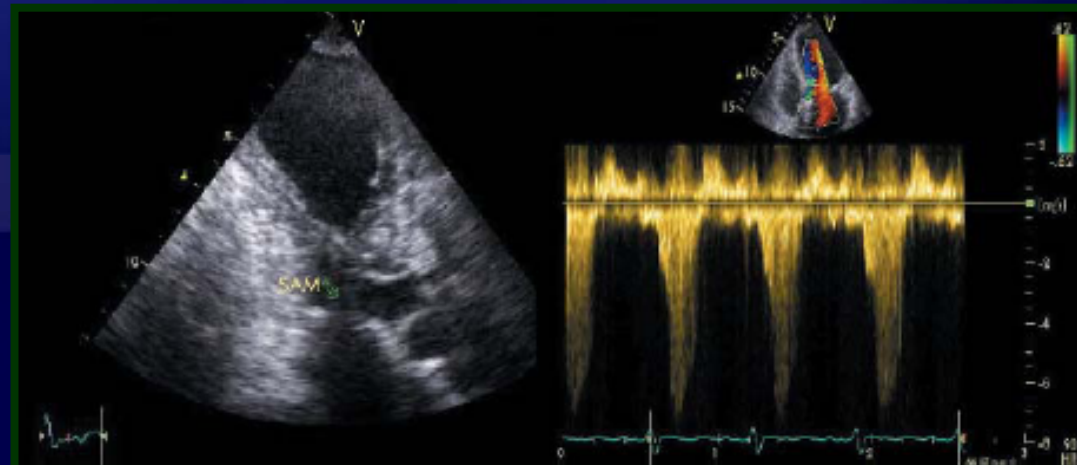
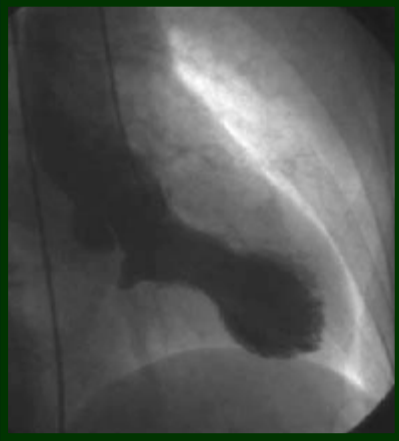


**10**



**20**





# **Stress Induced Cardiomyopathy**

# Clinical characteristics (I)

- Postmenopausal women
- An episode of acute emotional or physiologic stress
- Favorable prognosis
- Unknown cause



# Clinical characteristics (II)

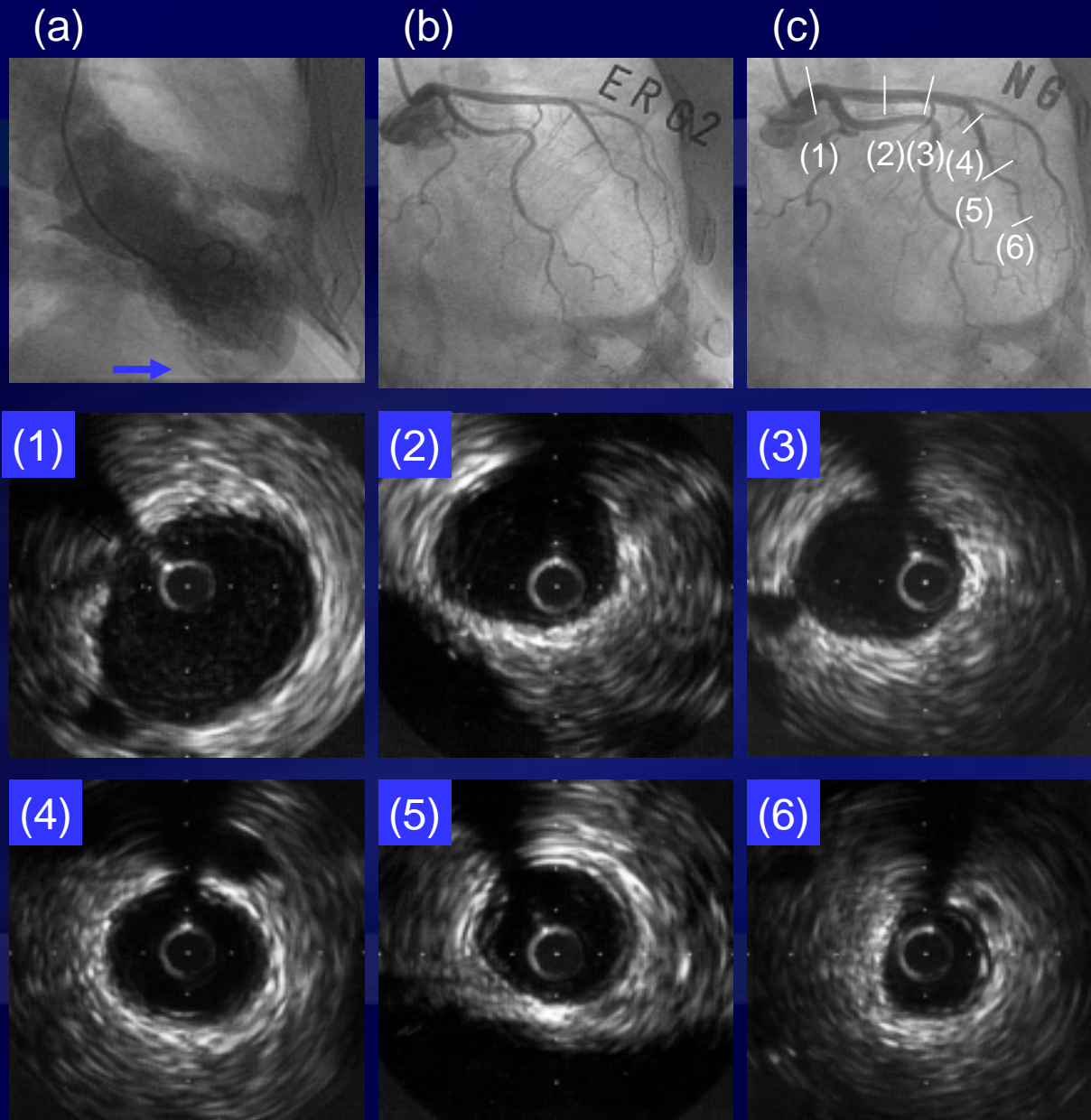
- Abrupt onset of angina-like chest pain
- ECG changes; ST-segment elevation, diffuse T-wave inversions, abnormal QS-wave development
- Discrete wall motion abnormalities involving the lower anterior wall and apex on echocardiography or left ventriculography

# Clinical characteristics (III)

- Limited myocardial enzyme release relative to the extent of ventricular akinesia
- Clinical presentation mimics AMI but always occurs in patients without evidence for hemodynamically significant coronary arterial stenoses by angiography

# Pathogenesis

- **Proposed mechanism**
  - Excessive sympathetic activation with transient regional left ventricular stunning
  - Coronary vasospasm
  - Acute lymphocytic myocarditis
  - Microvascular ischemia
  - Ruptured coronary plaque
- **Unifying mechanistic explanation is still lacking**



# Mayo Clinical Criteria

- 1. Transient akinesis or dyskinesis of the left ventricular apical and mid-ventricular segments with regional wall-motion abnormalities extending beyond a single epicardial vascular distribution**
- 2. Absence of obstructive coronary disease or angiographic evidence of acute plaque rupture**
- 3. New electrocardiographic abnormalities (either ST-segment elevation or T-wave inversion)**
- 4. Absence of**
  - Recent significant head trauma**
  - Intracranial bleeding**
  - Pheochromocytoma**
  - Obstructive epicardial coronary artery disease**
  - Myocarditis**
  - Hypertrophic cardiomyopathy**

# Treatment

- **Conservative Treatment**
  - Hypotension – inotropics, mechanical support
  - Pulm. edema – diuretics
- **ACE inhibitors**
- **Beta blocker**
- **Ca channel blocker**
- **Long acting nitrates**

# Prognosis

- **In hospital mortality: 0 - 8%**
- **Recurrence: 3%**

- ?
- 가?
- 가 ?
- 가 가 가?
- 가?
- 가?



