

Case 1

Module 3: Real World Application of Mechanical Circulatory Support

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Disclosure

All presenters have a speaker agreement with Maquet

Disclaimer – Indications

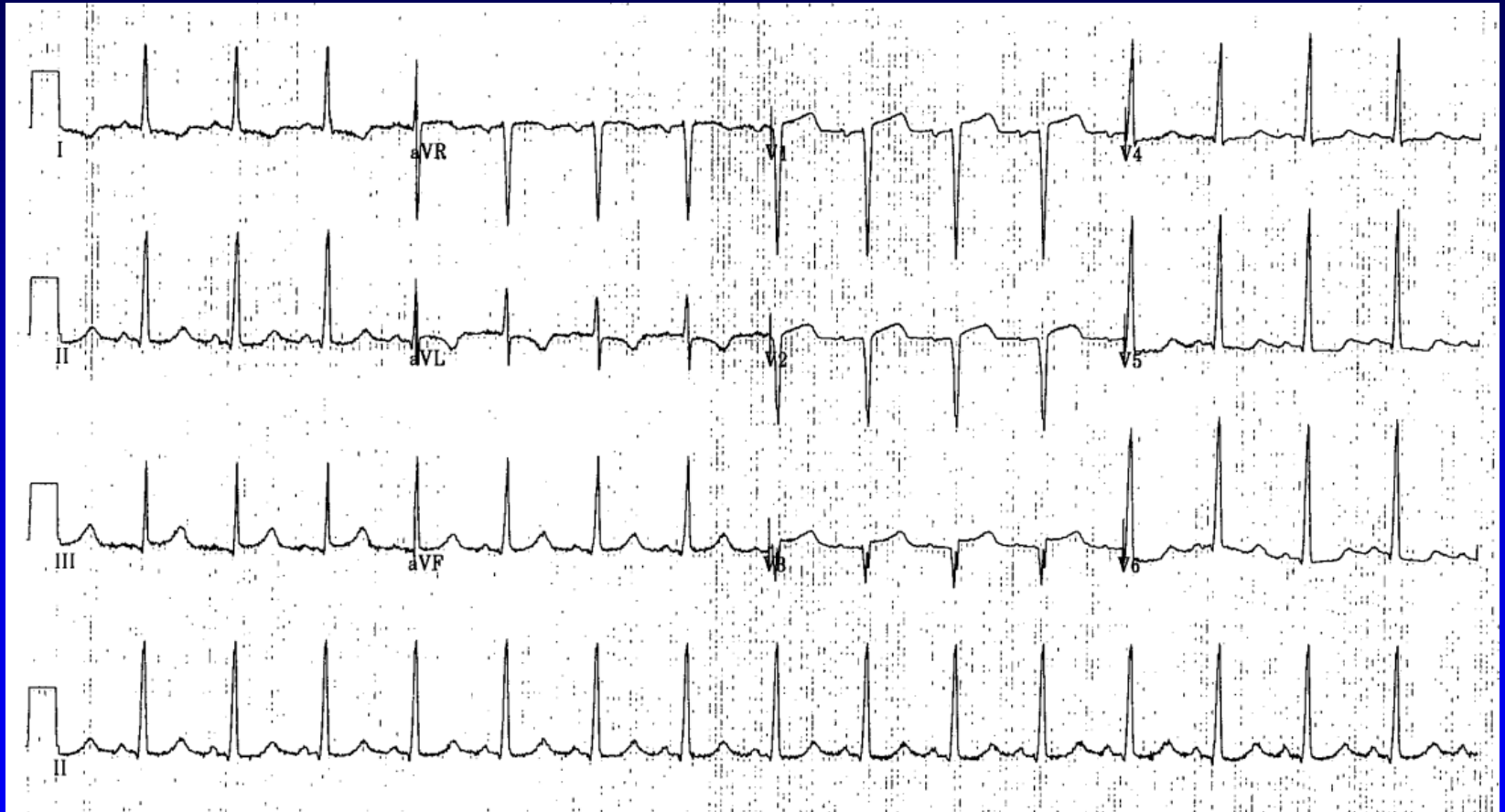
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Refer to Maquet's Instructions for Use for current indications, warnings, contraindications, and precautions.

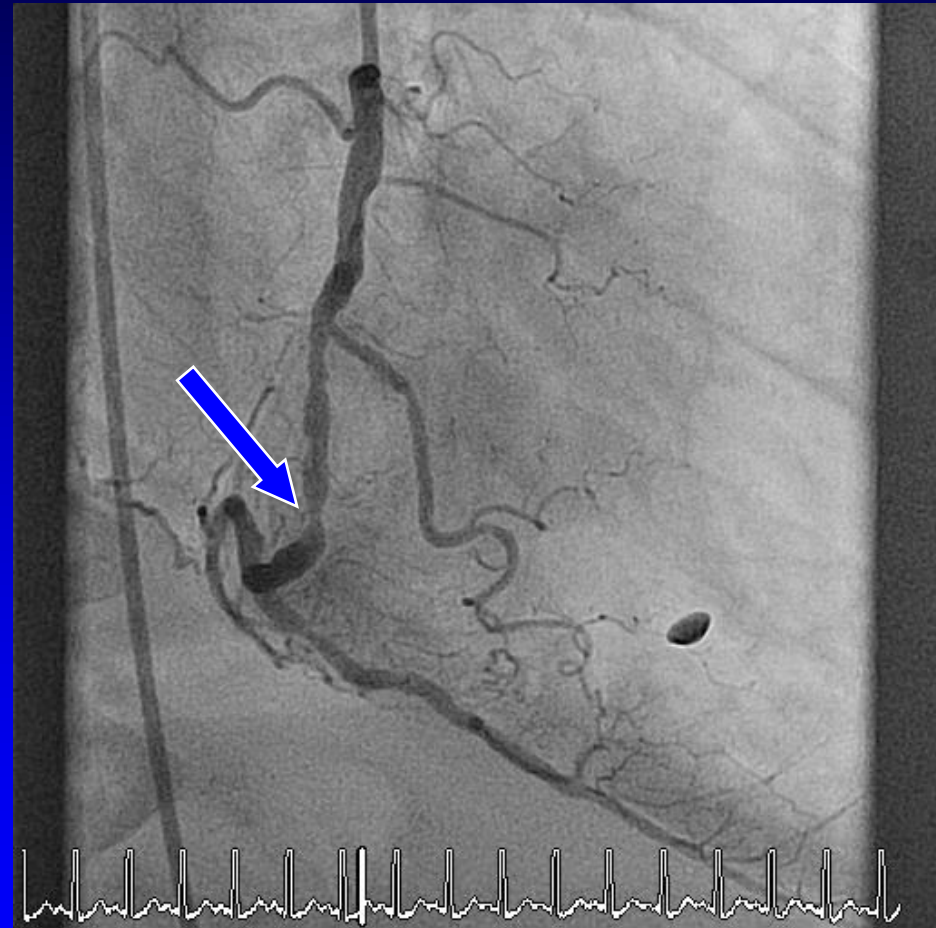
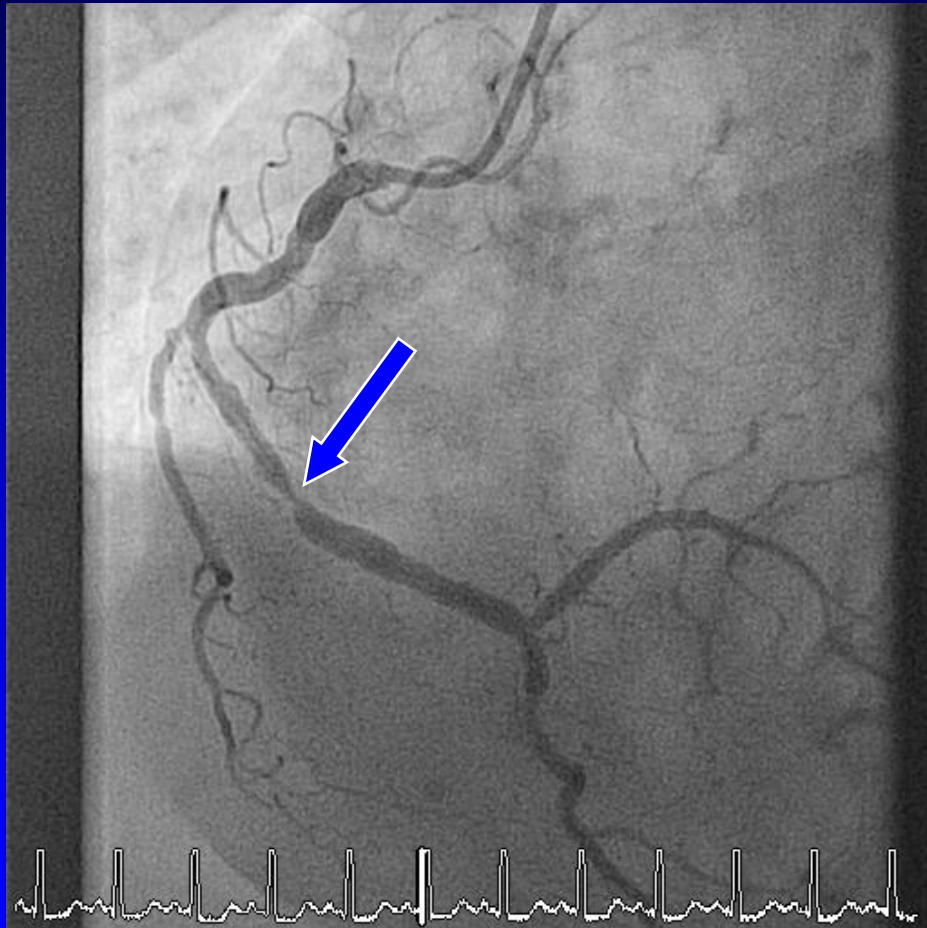
Case 1

- Female, 74 years old
 - Anginal symptoms and dyspnea on exertion since 1 week
 - Acute coronary syndrome since 4-5 hours with increasing dyspnea and increasing chest pain
 - Cold clammy skin, signs of pulmonary congestion, hypotension (90/50 mmHg), tachycardia (100/min), respiratory distress (frequency 25/min), O₂-saturation 95%
- ***(sub)acute anterior wall myocardial infarction with cardiogenic shock***

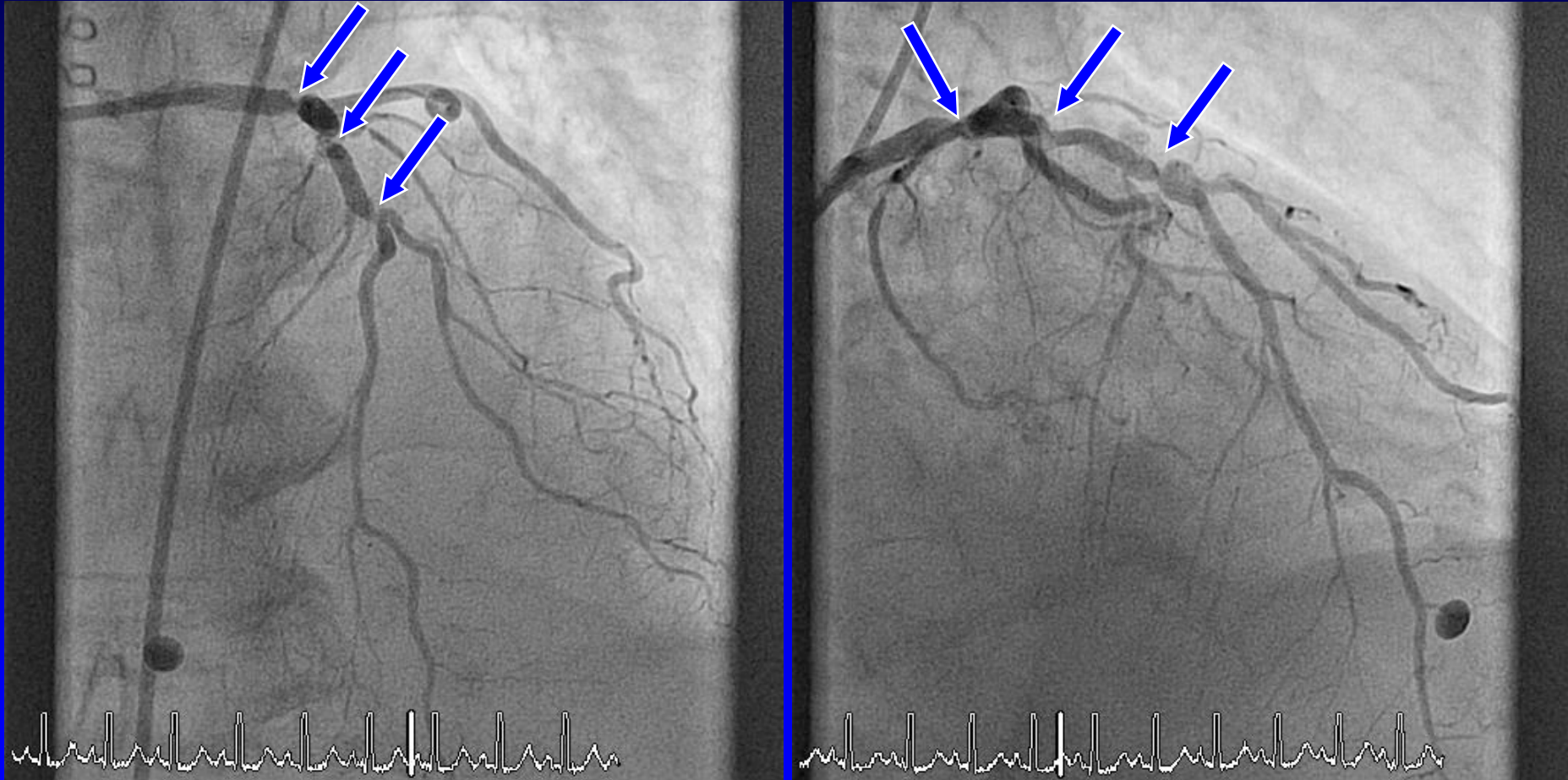
Electrocardiogram



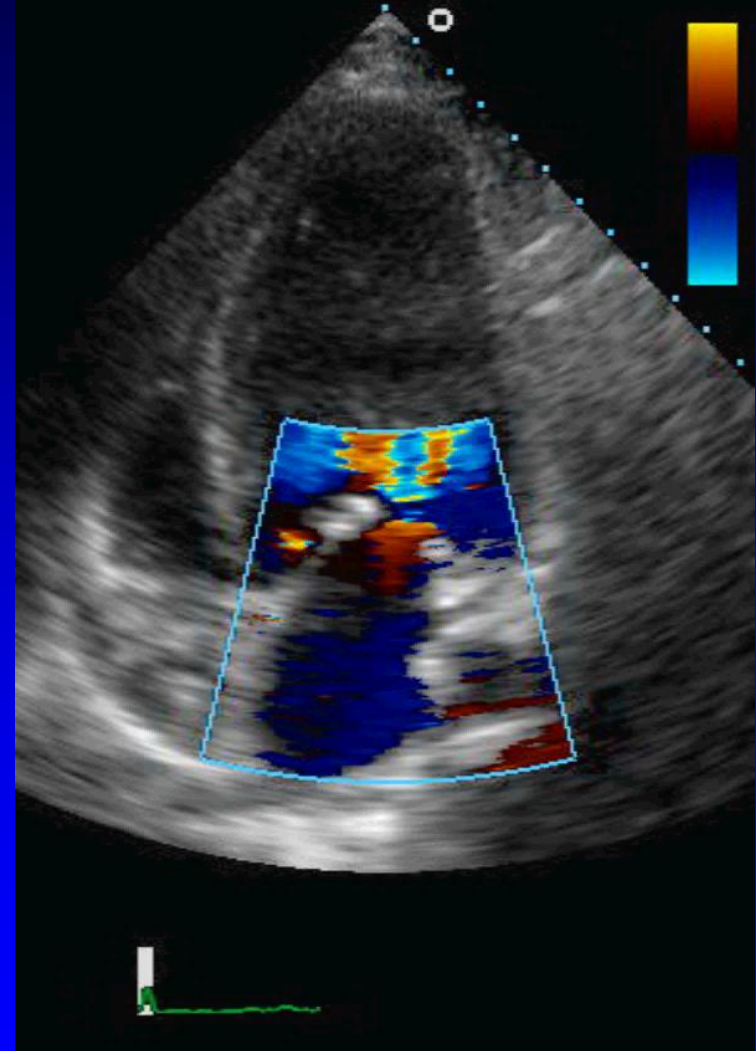
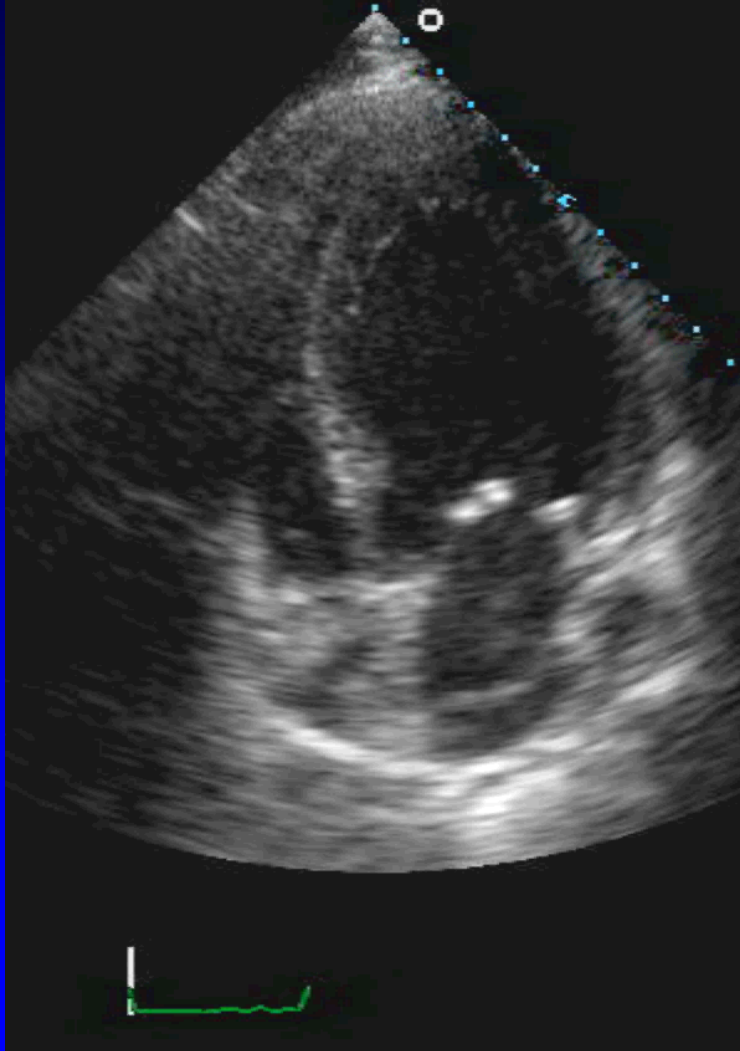
Coronary angiogram (RCA)



Coronary angiogram (LCA)



Echocardiography (in Cath Lab)



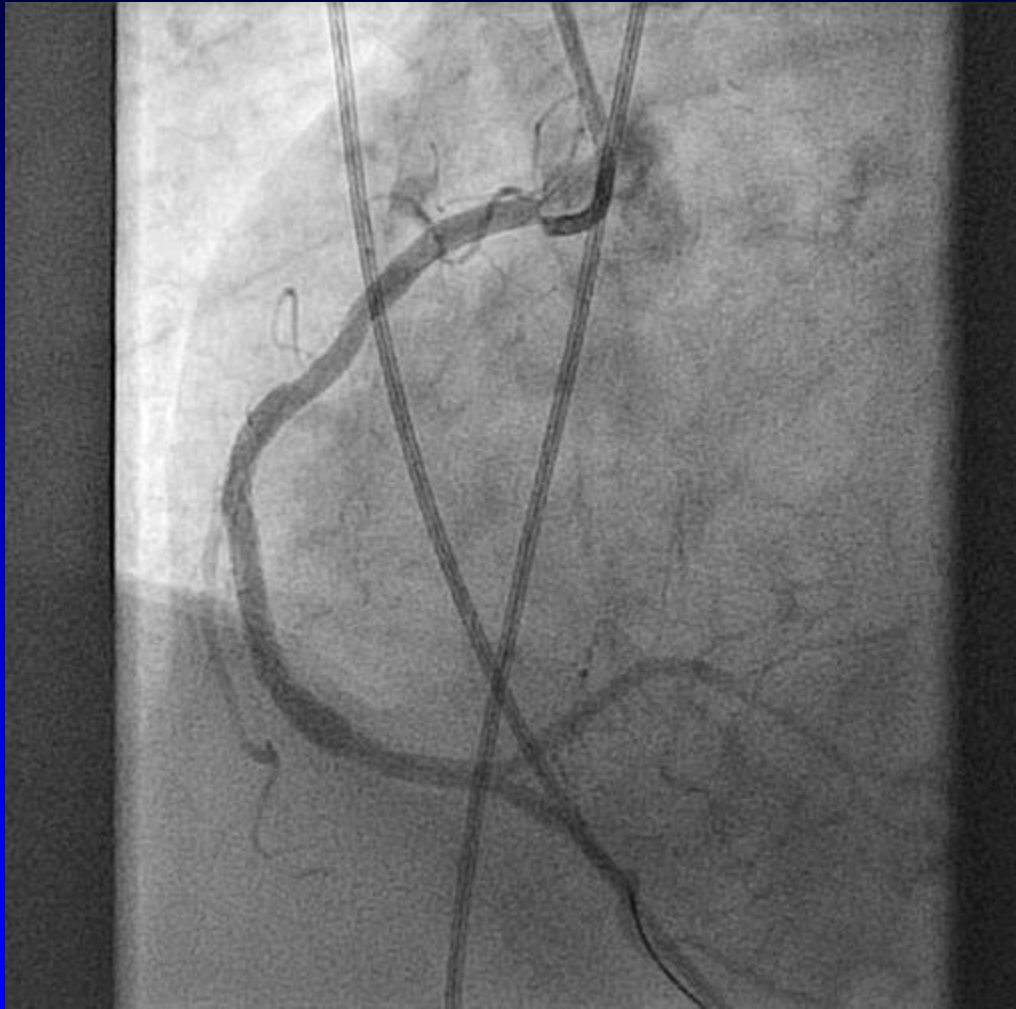
Large area of severe hypokinesia and severe mitral valve regurgitation

Diagnosis at this stage:

- Anterior wall infarction with cardiogenic shock
- Persistent myocardial ischemia in severe multivessel disease
- Severe mitral regurgitation (ischemia-mediated?)

- *How to treat?*

→ IABP and acute coronary intervention of both RCA and LAD





In-hospital outcome

- Additional treatment with GPIIb/IIIa inhibitors
- After PCI, inotropic support was needed for 1 day
- IABP therapy was continued for 24 hours
- After 2 years of follow up, the patient is doing excellent without any cardiac complaints
- EF 53%

Effects of IABP:

- *Augmentation of coronary flow:
(autoregulation exhausted both in infarction area
and in remote area of RCA)*
- *Relief of ongoing ischemia*
- *LV-unloading*
- *Afterload reduction for mitral regurgitation*