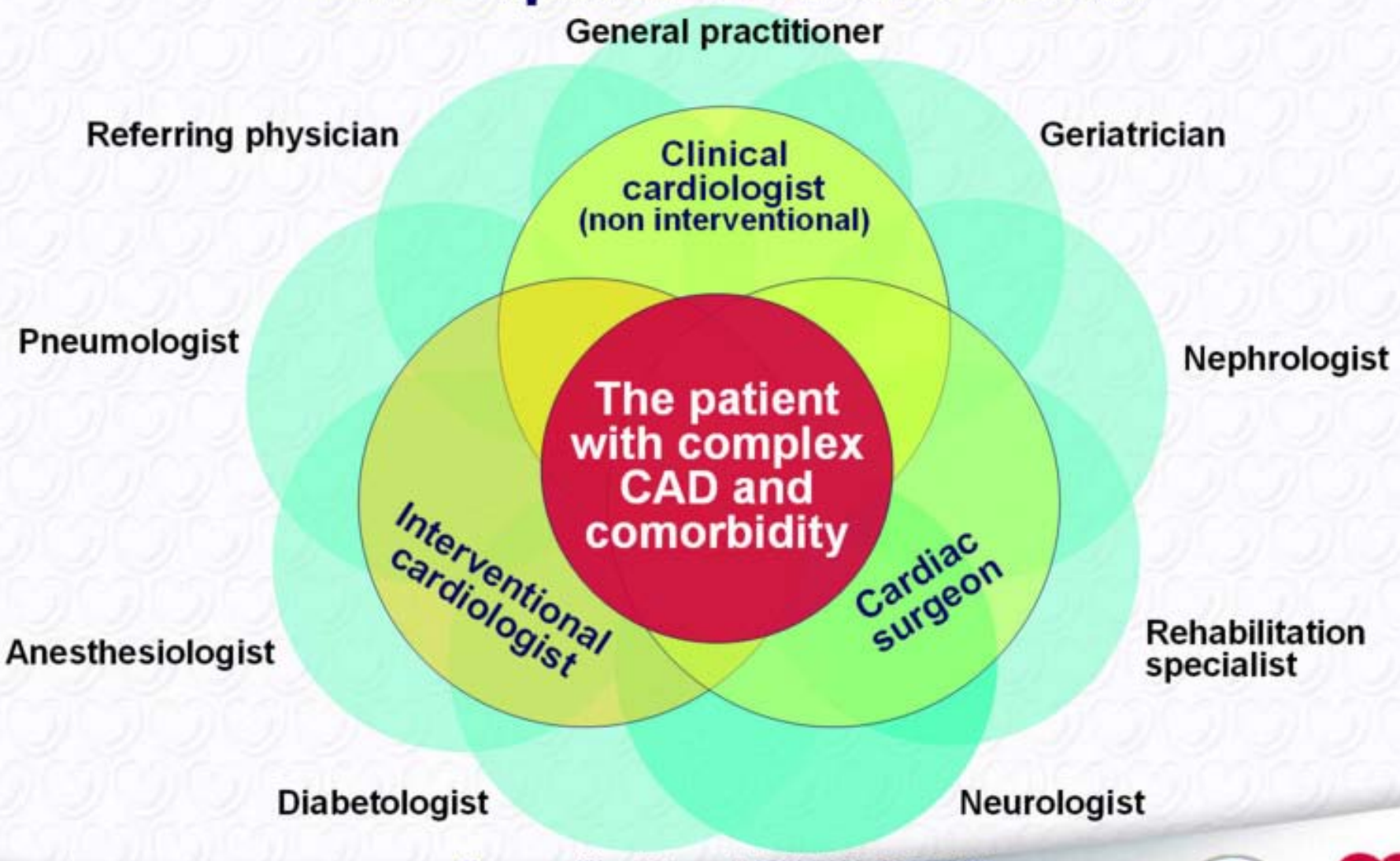
The Expanded Heart Team



European Heart Journal (2010) 31, 2501-2555
European Journal of Cardio-thoracic Surgery (2010) 38, S1-S52

www.escardio.org/guidelines

Joint 2010 ESC - EACTS Guidelines on Myocardial Revascularisation

EACTS

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European Heart Journal (2010) 31, 2501-2555
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Joint 2010 ESC - EACTS Guidelines on Myocardial Revascularisation

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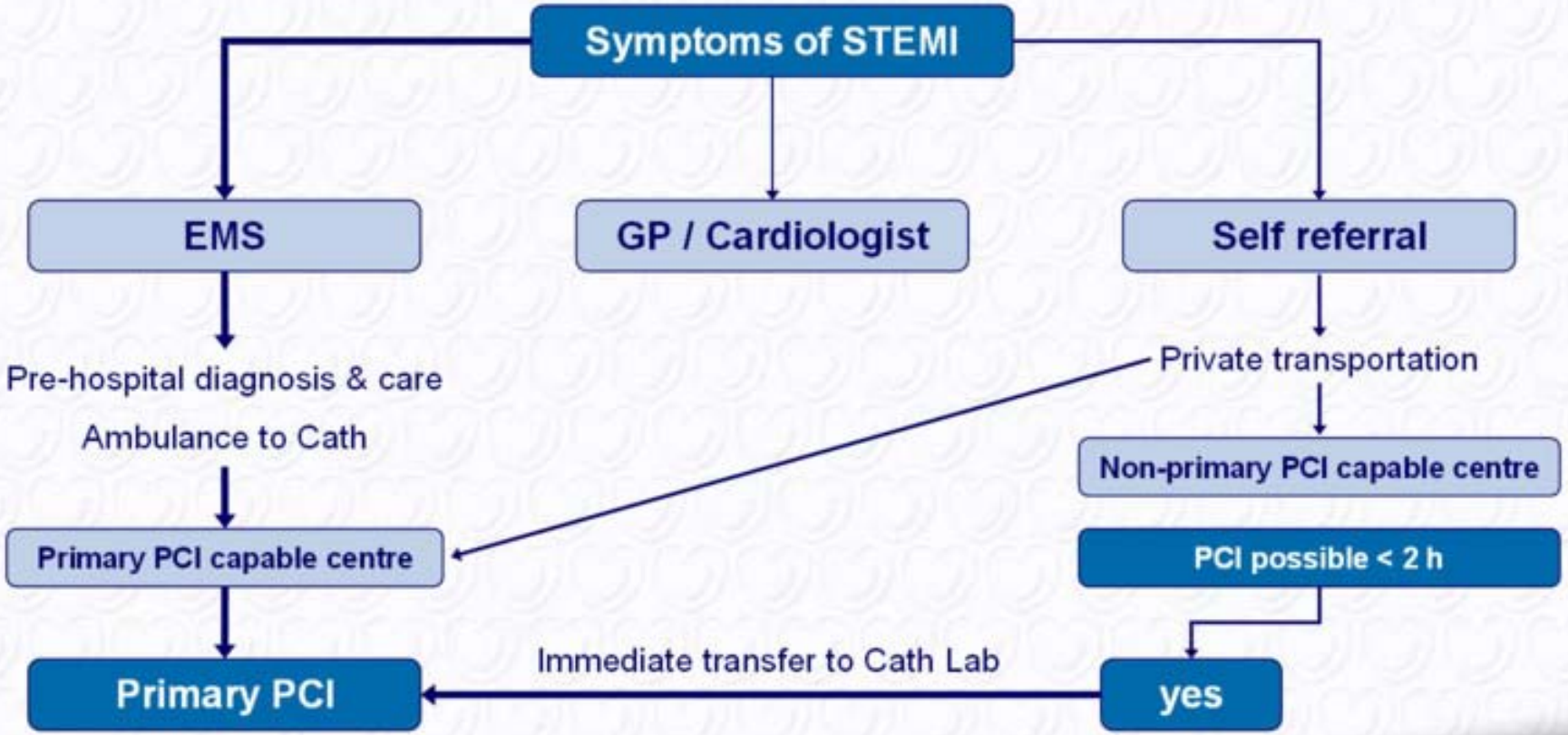
Organisation of STEMI patient disposal describing pre- and in-hospital management, and reperfusion strategies within 12 h of First Medical Contact (FMC)



From the Section of Cardiology and Cardiovascular Surgery, Norfolk General Hospital and Eastern Virginia Medical School, Norfolk, Virginia

Prophylactic Use of Intra-aortic Balloon Pump in Aortocoronary Bypass for Patients with Left Main Coronary Artery Disease

H. R. RAJAI, M.D., et al

Aortocoronary bypass surgery in patients with left main coronary artery disease is reported to have an operative mortality of between 1.4 and 39%. It is generally accepted that the operative mortality in this group of patients is considerably greater than in routine bypass candidates, presumably due to the large amount of myocardium threatened by a single lesion. In an effort to preserve threatened left ventricular myocardium, intra-aortic balloon pumping was instituted prophylactically prior to sternotomy in 20 consecutive patients with left main coronary artery disease (luminal narrowing greater than 50%). Sixty per cent of these patients had New York Heart Association Class IV angina, 25% had Class III, and 15% Class II. Fifty per cent of the patients in this group presented with unstable angina. Operative patients requiring left ventricular aneurysmectomy and/or valve replacement, were excluded. No operative deaths have been encountered in 20 consecutive patients managed in this manner. One patient displayed signs of myocardial infarction in the postoperative period.

Correctable peripheral vascular ischemic complications of pump insertion were encountered in three patients.

Preliminary results from this ongoing study support the hypothesis that prophylactic intra-aortic balloon pumping is a low risk procedure that should be utilized routinely in aortocoronary bypass surgery for left main coronary artery disease

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Indications

- **1. Refractory ventricular failure**
- **2. Cardiogenic shock**
- **3. Unstable refractory angina**
- **4. Impending (To threaten to happen) infarction**
- **5. Cardiac support for high-risk general surgical and coronary angiography/ angioplasty patients**
- **6. Ischemia related intractable (Difficult to manage) ventricular arrhythmias**

STEMI + Cardiogenic shock + left main CAD as culprit

- **Case report.**
- **G. R., female, 90 y.o. In perfect conditions. She cooks every day lunch for the nephews back from school.**
- **PCI on LM with, BMS 5 months before.**
- **19 days ago, anterior STEMI…cardiogenic shock. BP 80/X, 20 ml diuresis in 2 hours with medical Rx. Previous LVEF 35%, now LVEF 15%. She asked to undergo repeat PCI and not medical Rx, after info.**
- **Glomerular filtration rate 28 ml/Kg/min**

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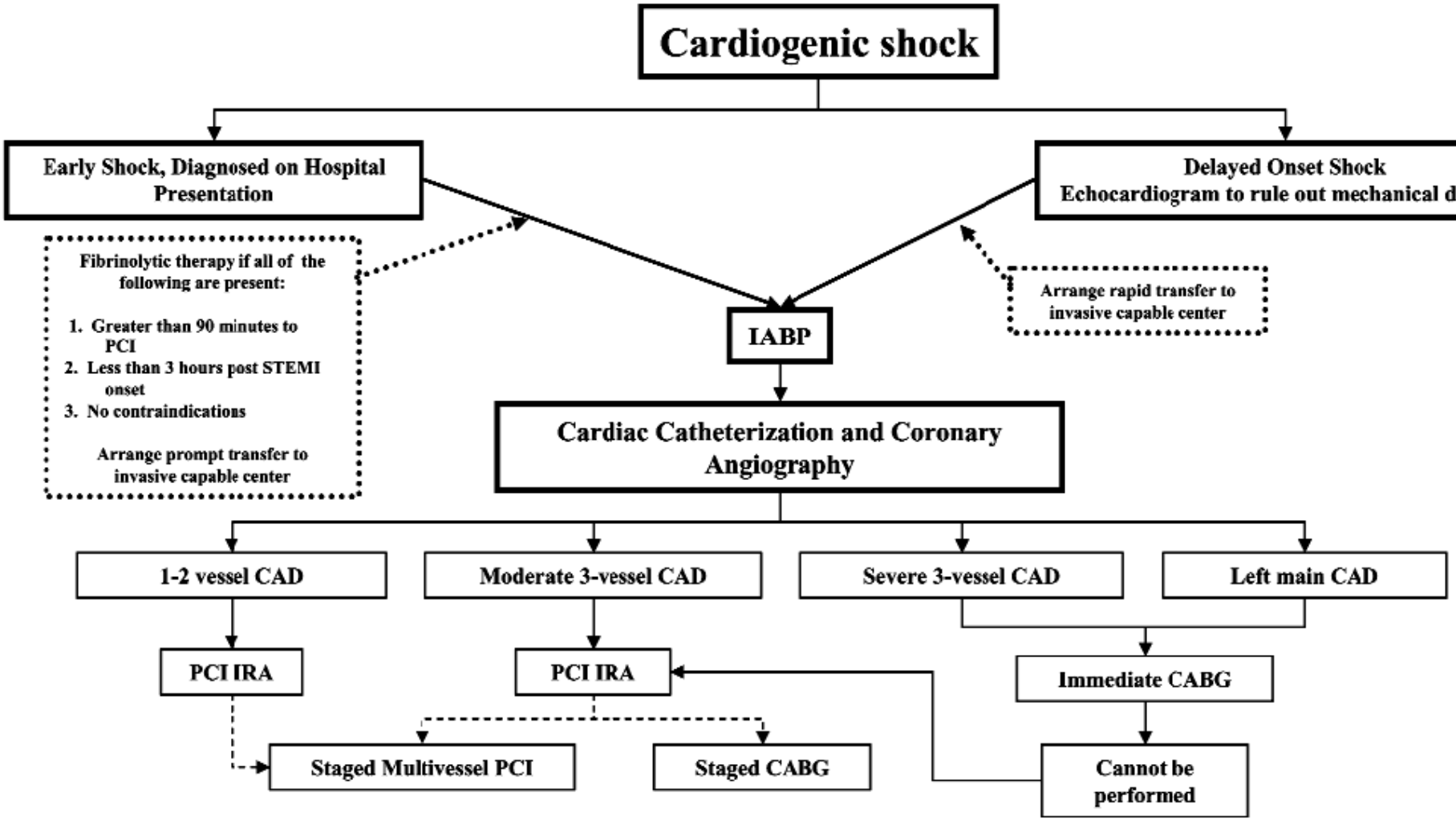

gure 10. Recommendations for initial reperfusion therapy when cardiogenic shock complicates STEMI. Early mechanical re
rization with PCI/CABG is a Class I recommendation for candidates less than 75 years of age with ST elevation or left bundle-
ock who develop shock less than 36 hours from STEMI and in whom revascularization can be performed within 18 hours of
nd it is a Class IIa recommendation for patients 75 years of age or older with the same criteria. Eighty-five percent of shock
e diagnosed after initial therapy for STEMI, but most patients develop shock within 24 hours. IABP is recommended when s
t quickly reversed with pharmacological therapy, as a stabilizing measure for patients who are candidates for further invasiv
ashed lines indicate that the procedure should be performed in patients with specific indications only. Recommendations for
ABG and PCI are discussed in the text, as are definitions of moderate and severe 3-vessel CAD. CABG indicates coronary

STEMI + Cardiogenic shock + left main CAD as culprit

- **Organizational problems**
  - **How many Cath Lab with primary PCI program H24x365d/Y: many…**
  - **How many Cardiac Surgery with primary CABG program H24x365d/Y: very few…**
  - **Are there any safety data on trasferring patients with STEMI and shock to other hospital with cardiac surgery, vs. aortic couterpulsation and primary PCI? No…**

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STEMI + Cardiogenic shock + left main CAD as culprit

- What do we want in a such patient?
  - open LM with TIMI 3 flow
  - urgently, and H24x365d/y
  - complete revascularization
  - IABP
  - avoid renal-other organ damage

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STEMI + Cardiogenic shock + left main CAD as culprit

- G. R., female, 90 y.o.
- She implanted IABP via right femoral artery. Augmented BP was 140 mmHg.
- The next hour diuresis was 40 ml.

- Then we performed coronary arteriography.

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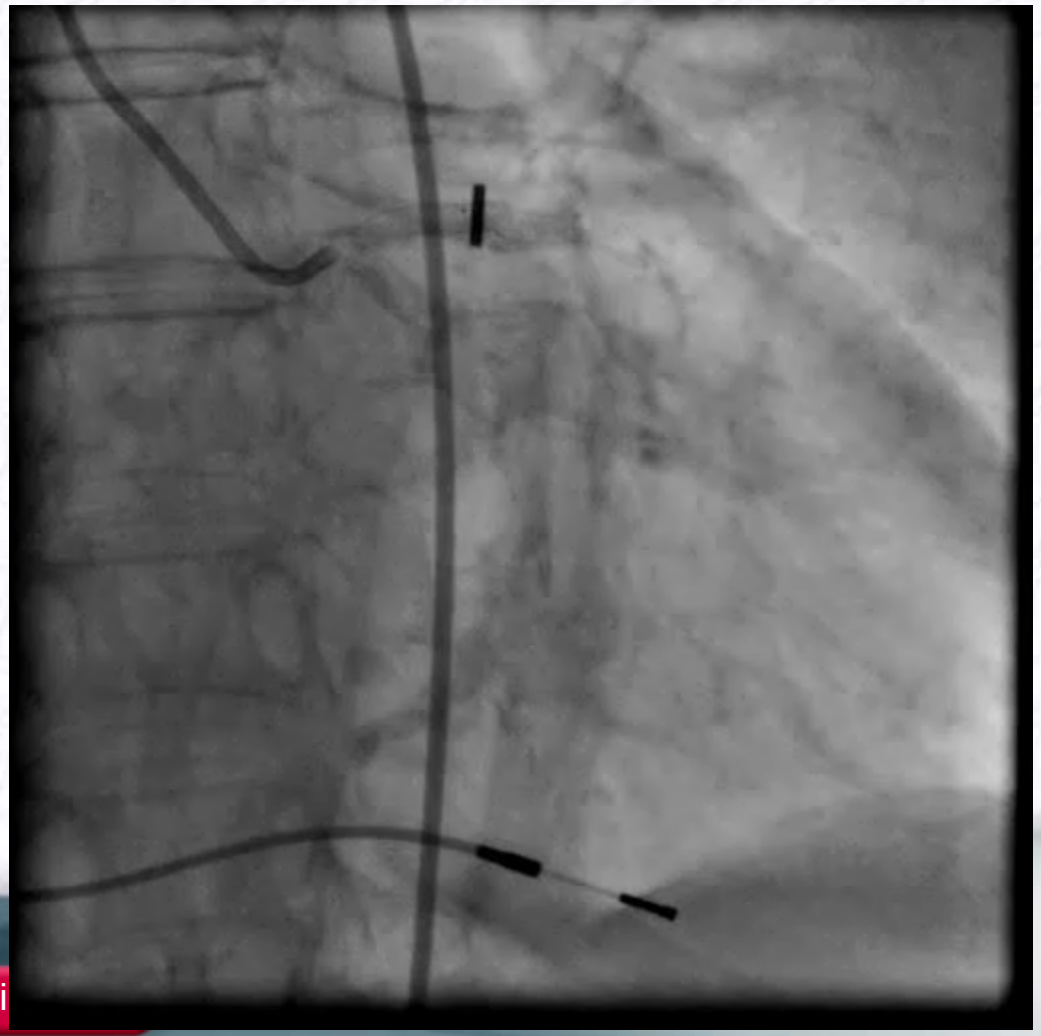
PCI in Patient with Left Main,LAD and Cx Restenosis



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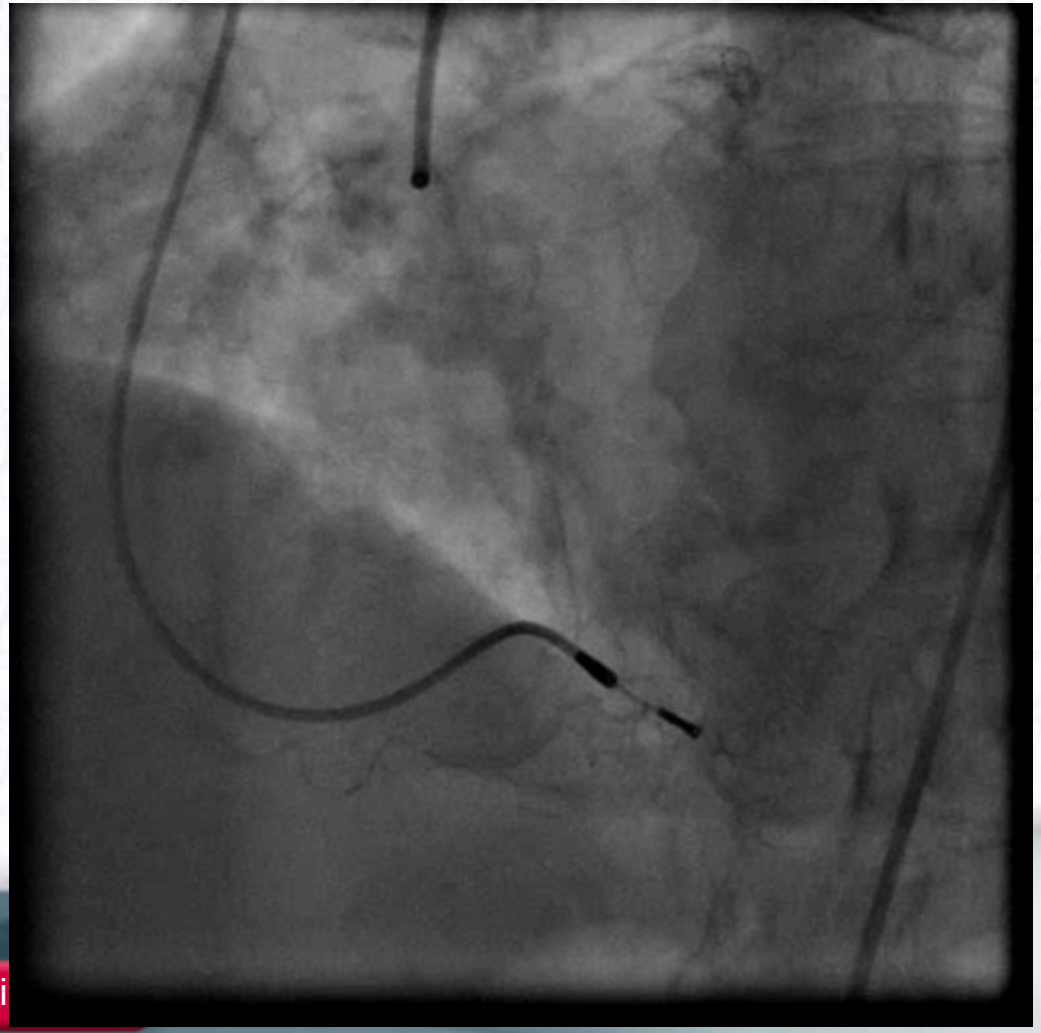
PCI in Patient with Left Main,LAD and Cx Restenosis



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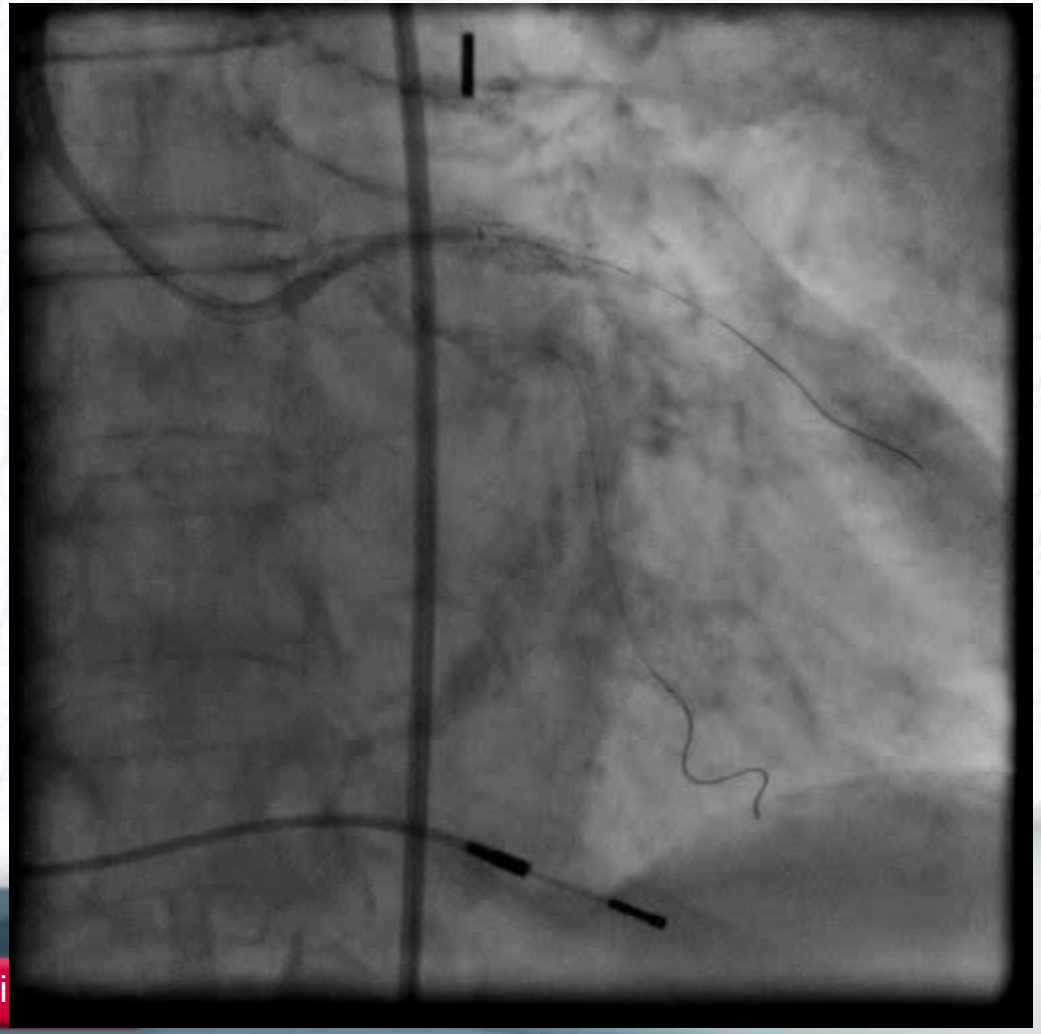

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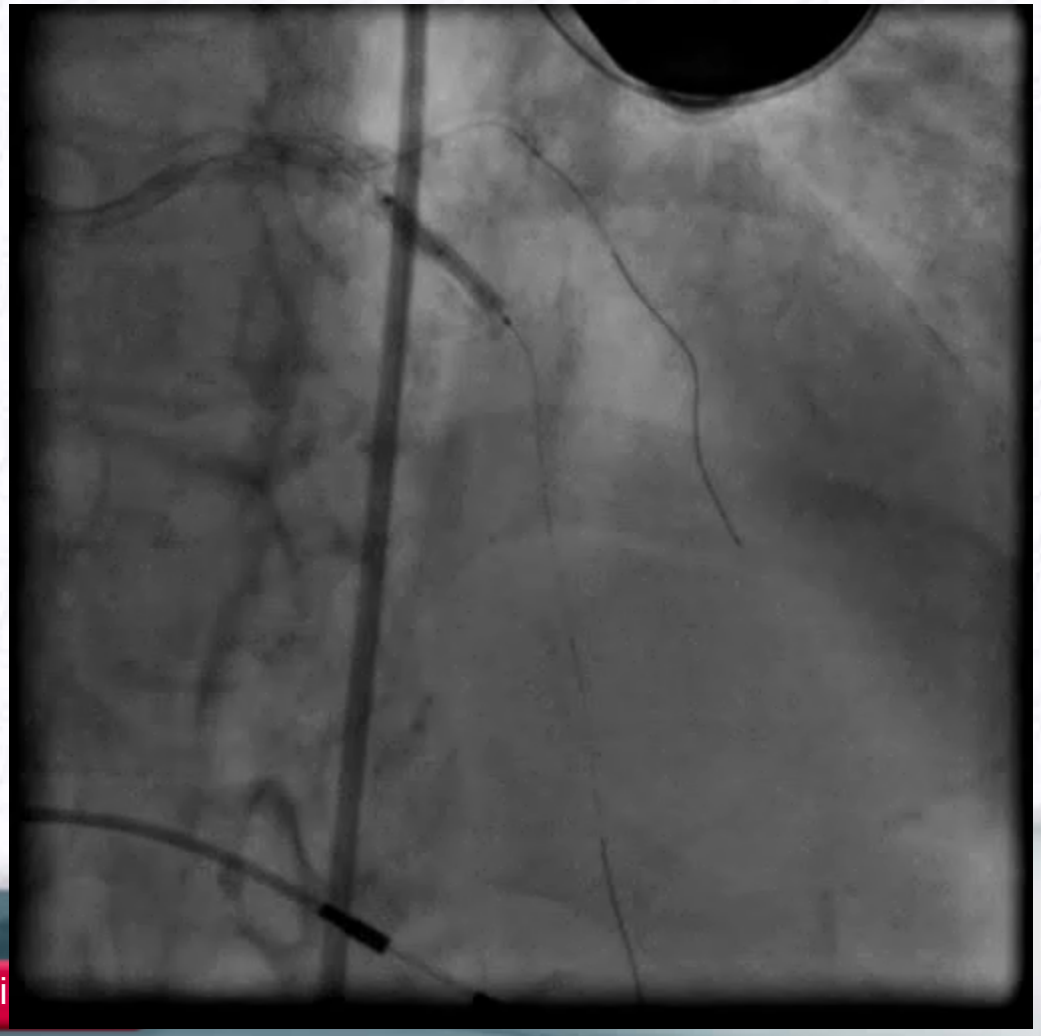

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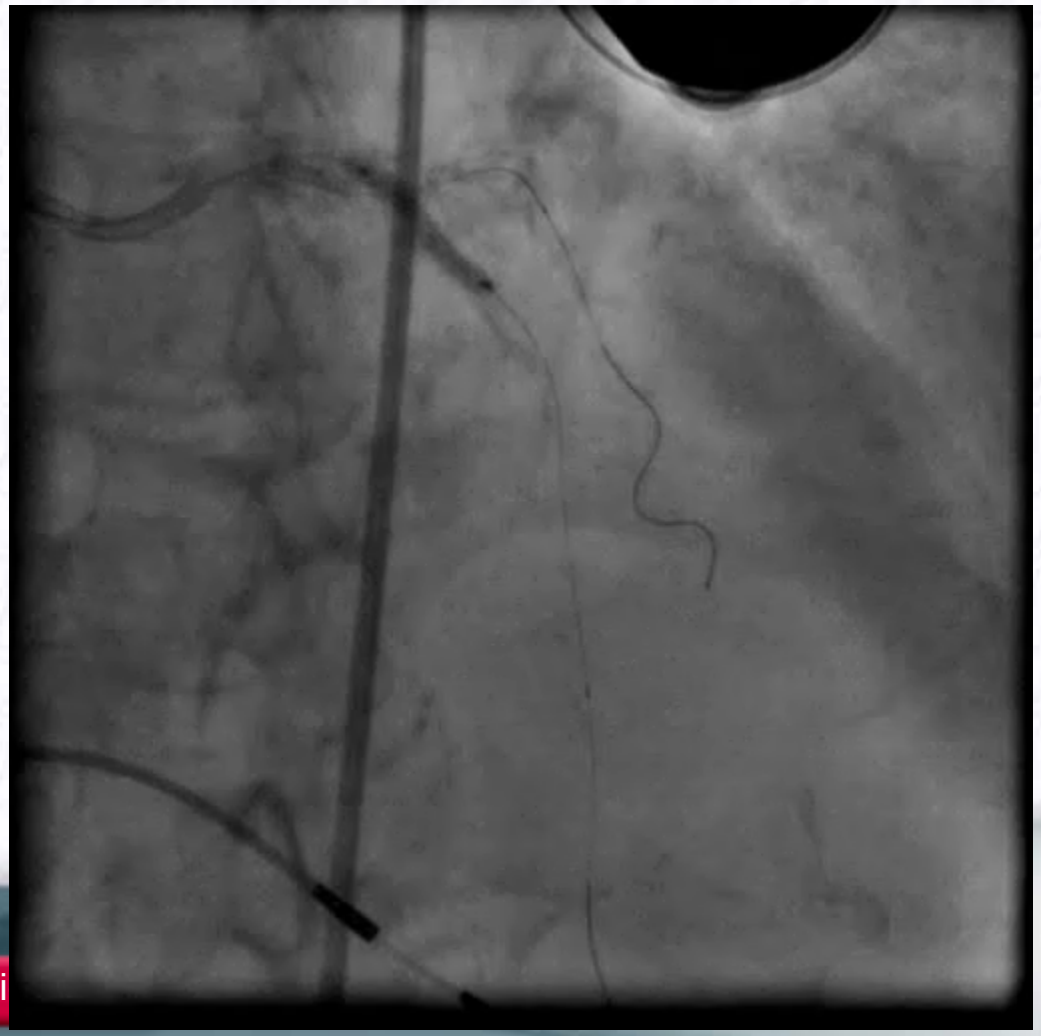
PCI in Patient with Left Main,LAD and Cx Restenosis



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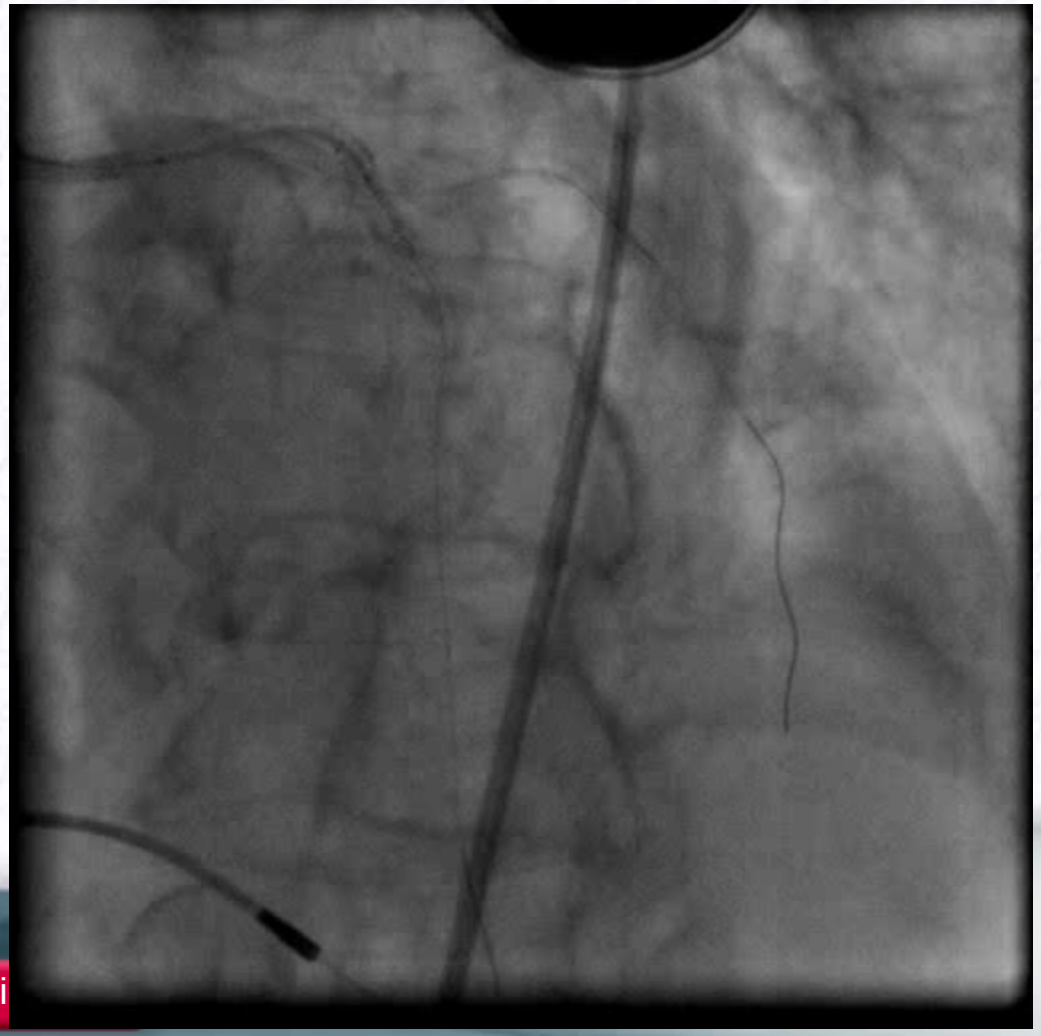

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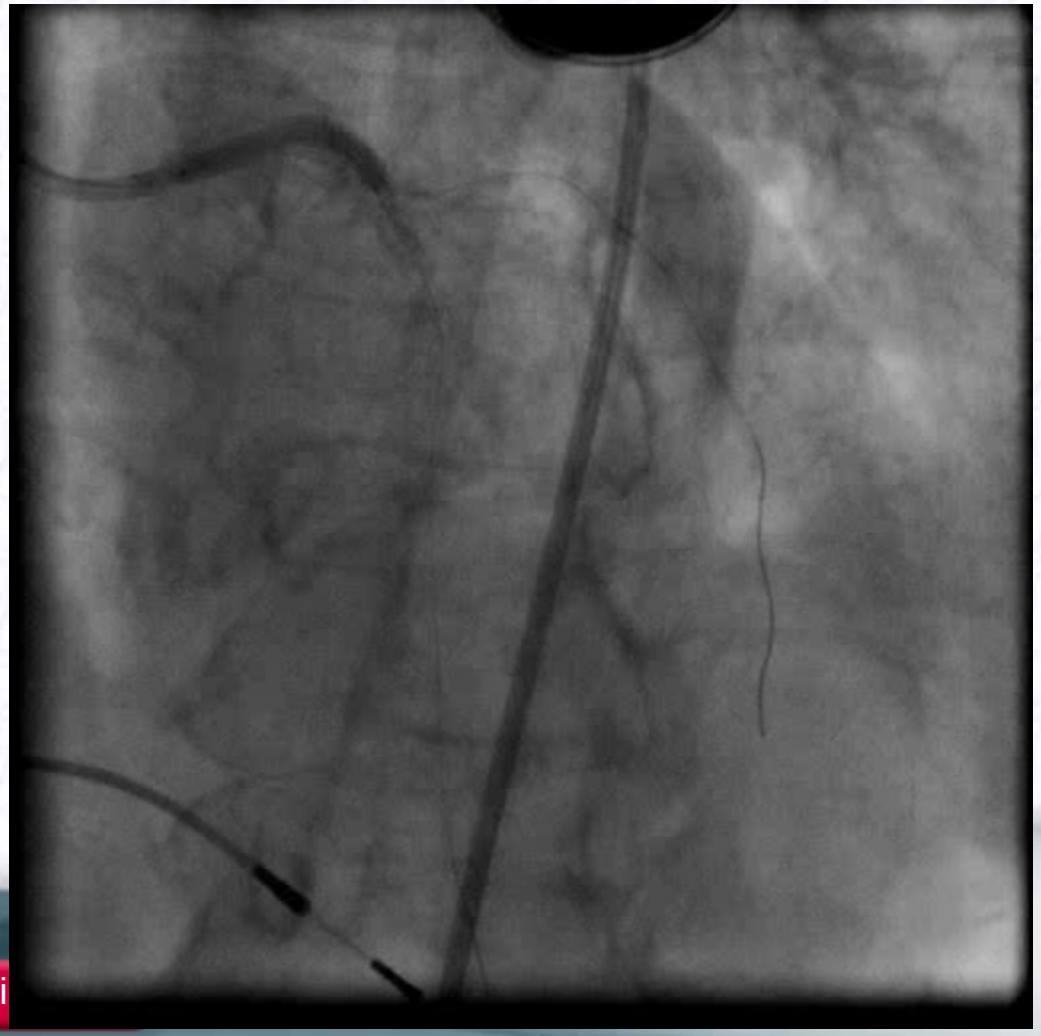

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PCI in Patient with Left Main,LAD and Cx Restenosis

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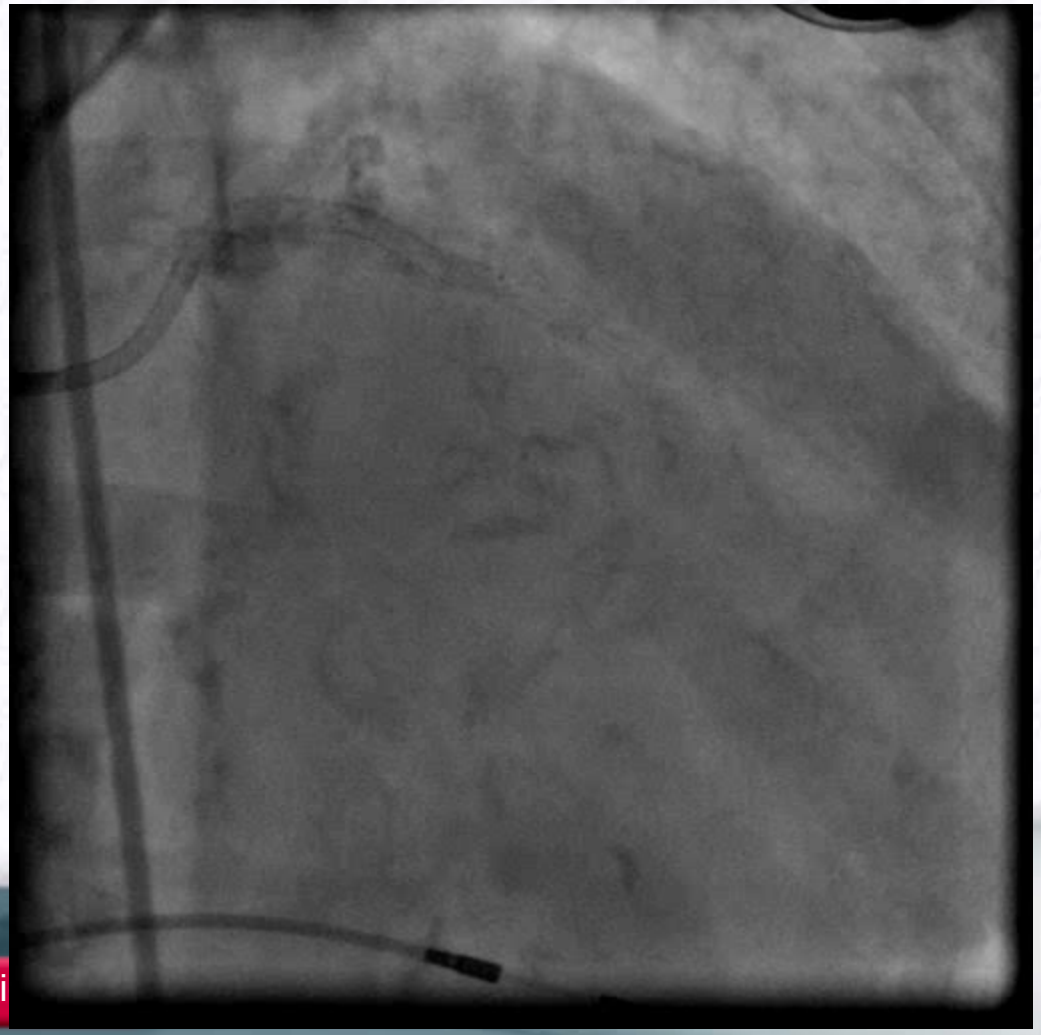
PCI in Patient with Left Main,LAD and Cx Restenosis



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STEMI + Cardiogenic shock + left main CAD as culprit

- G. R., female, 90 y.o.
- 4-hour session of dialysis in ICU, just after PCI. IABP for 2 days.
- Slow uptitration of ACE inhibitors.
- She went home on Nov 30th, asymptomatic, LVEF 25%. Her son says yesterday that she is back cooking for the nephews.

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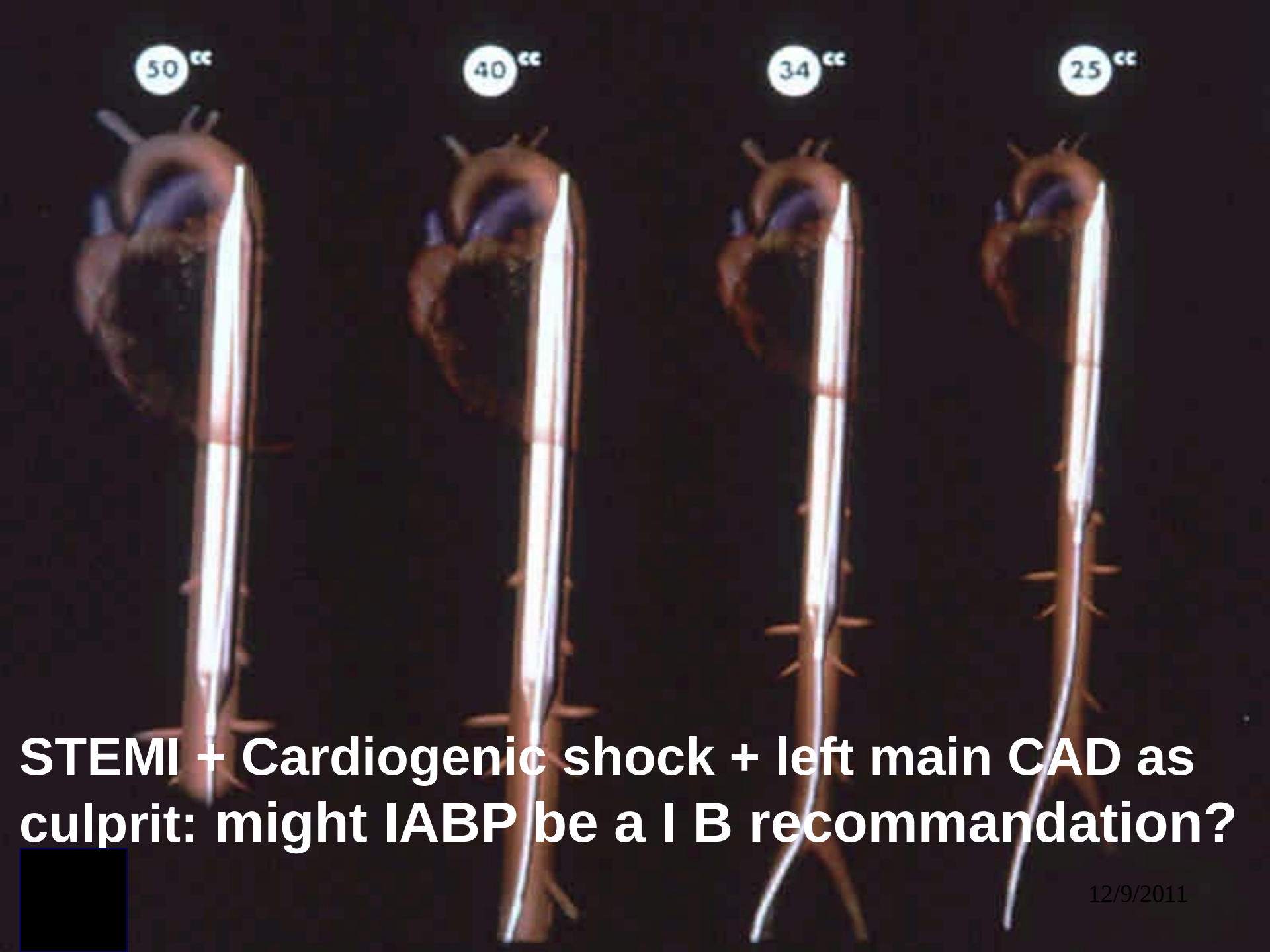

STEMI + Cardiogenic shock + left main CAD as culprit: might IABP be a I B recommandation?

STEMI + Cardiogenic shock + left main CAD as culprit

- After urgent coronary arteriography, do we advise coronary revascularization with surgery or PCI?

- PCI with IABP and renal support, in the majority of cases.

- For STEMI who reached hospitals with H24x365d/y surgical programs of CABG for AMI, surgical revascularization could be preferred.

Might this be a IIa C recommendation (at least)?

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STEMI + Cardiogenic shock + left main CAD non culprit

- LM plaque with negative US/FFR…nothing on LM
- LM stenosis with positive FFR, not subocclusive…avoid DES on the culprit lesion, mandatory
- LM stenosis, severely critical (>75%)…either balloon PCI on culprit lesion an then CABG, or BMS and then send to cardiac surgery (depending on agreement).

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