



# **A Successful Case of LAD CTO PCI by Retrograde Technique**

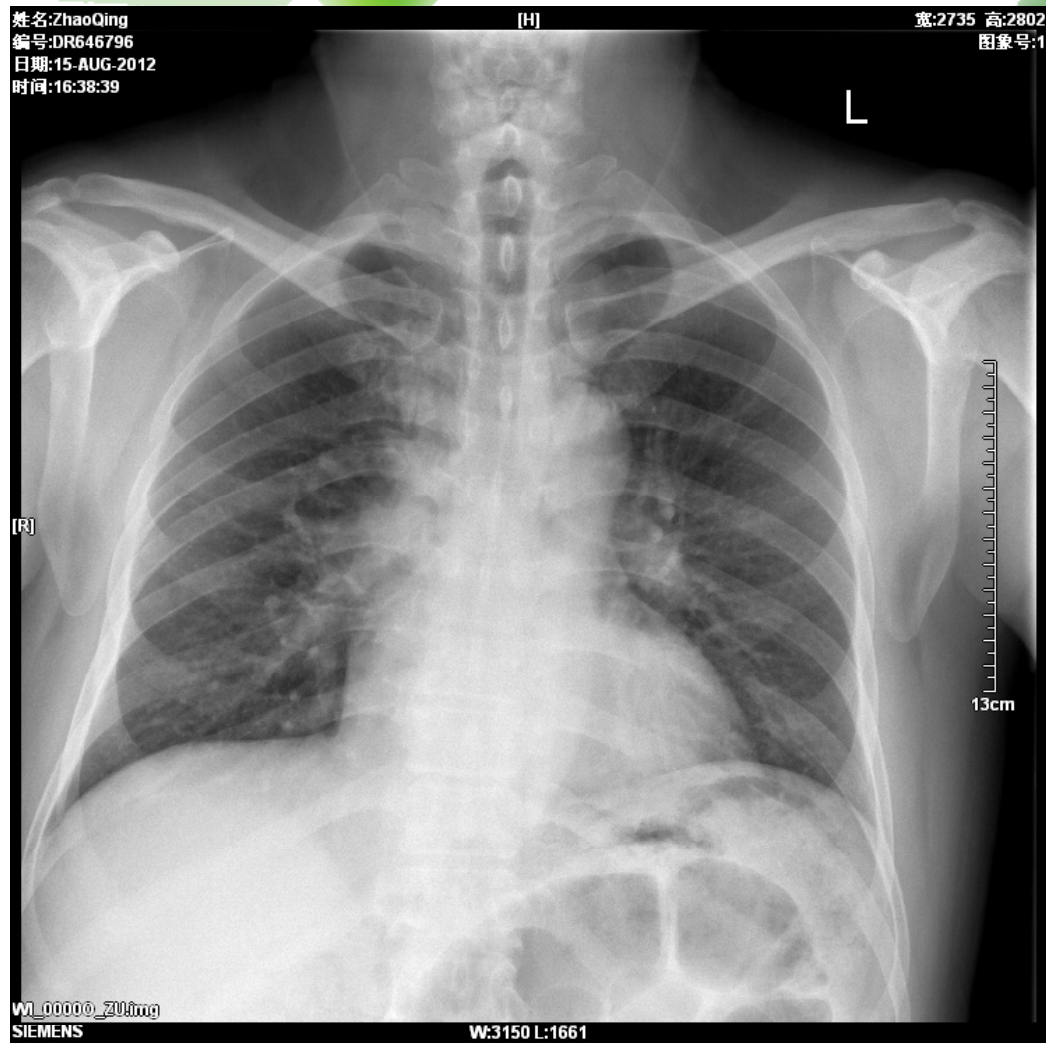
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The First Affiliated Hospital of  
Xinjiang Medical University**



# Clinical presentation

- M, 51ys
- chief complain: chest pain on exertion for 9 years
- Smoking 30 years
- DM 6 years
- PE: no rales, regular rhythm, 70 bpm, no edema
- ECG: sinus rhythm
- ECHO: EF 60%



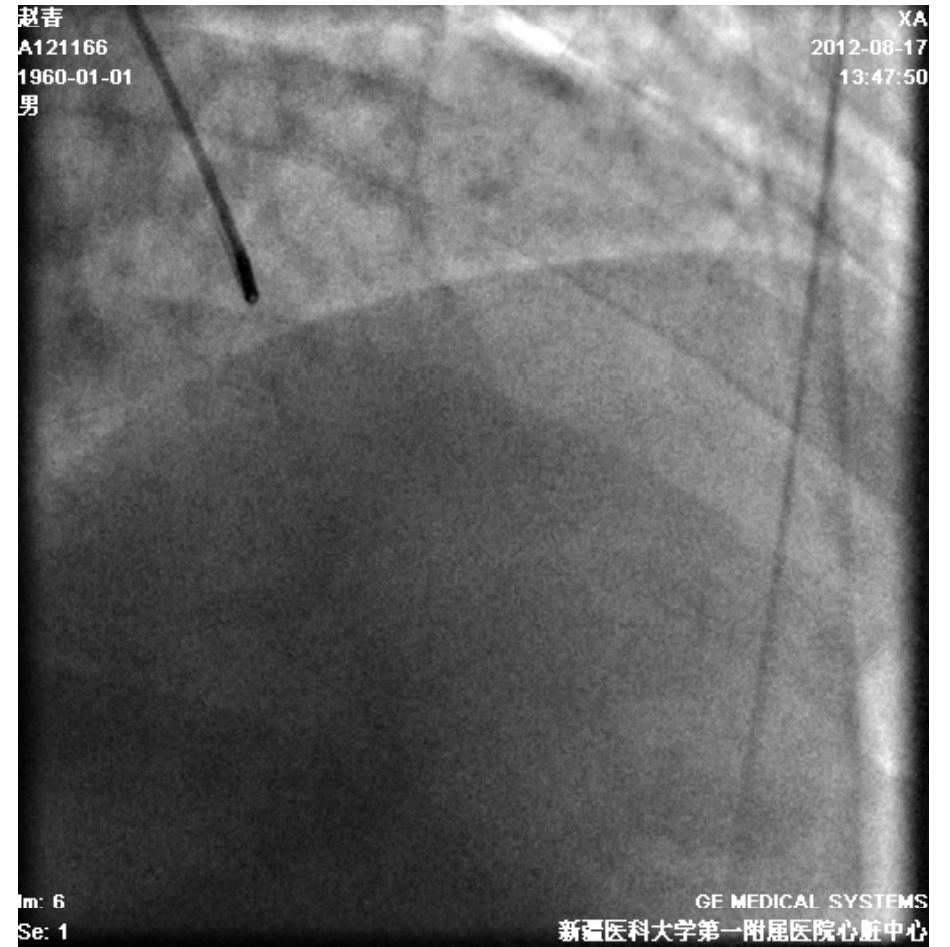
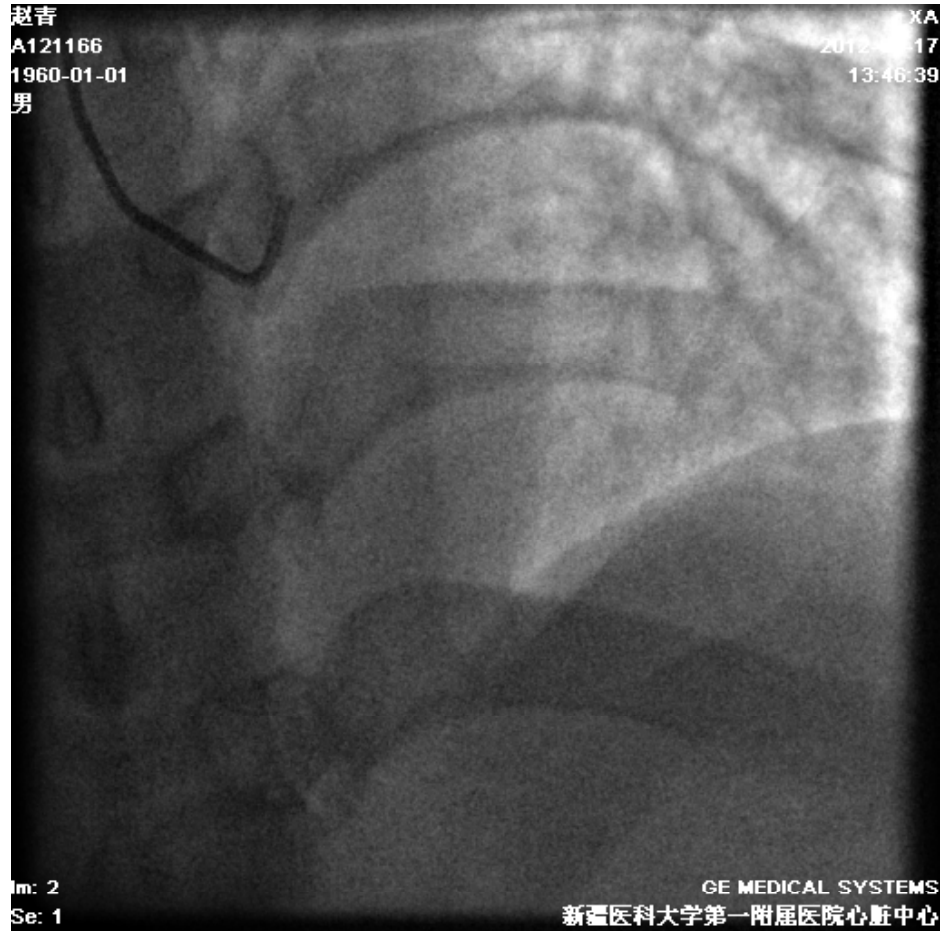


# Medical treatment

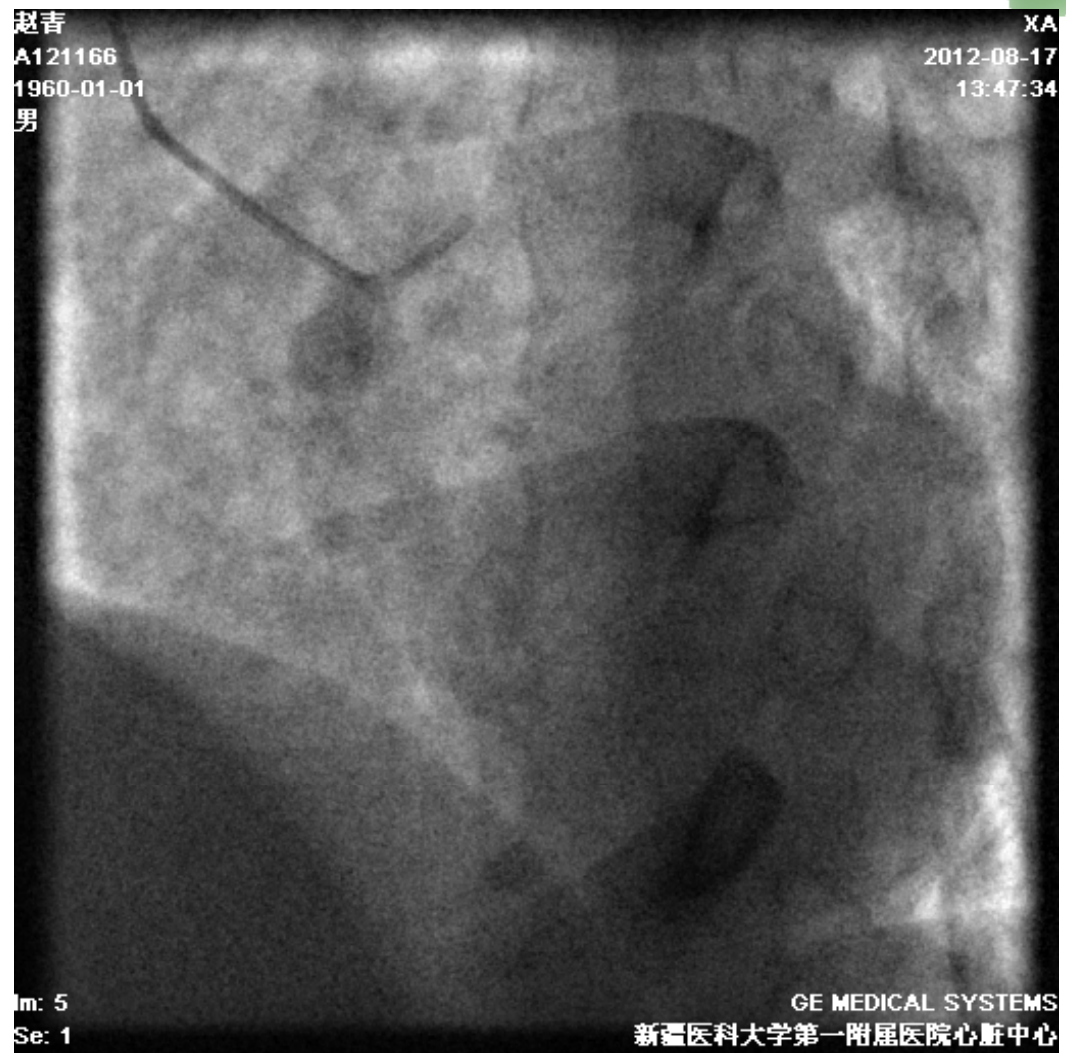
- ❖ Aspirin 100mg /d P.O.
- ❖ Clopidogrel 75mg /d P.O.
- ❖ B-blocker 25mg bid/d P.O.
- ❖ Lipitor 20mg/d P.O.
- ❖ Monopril 10mg/d P.O.
- ❖ Melbine (DMBG) 0.5g tid P.O.
- ❖ Insulin glargine 12u I.H.



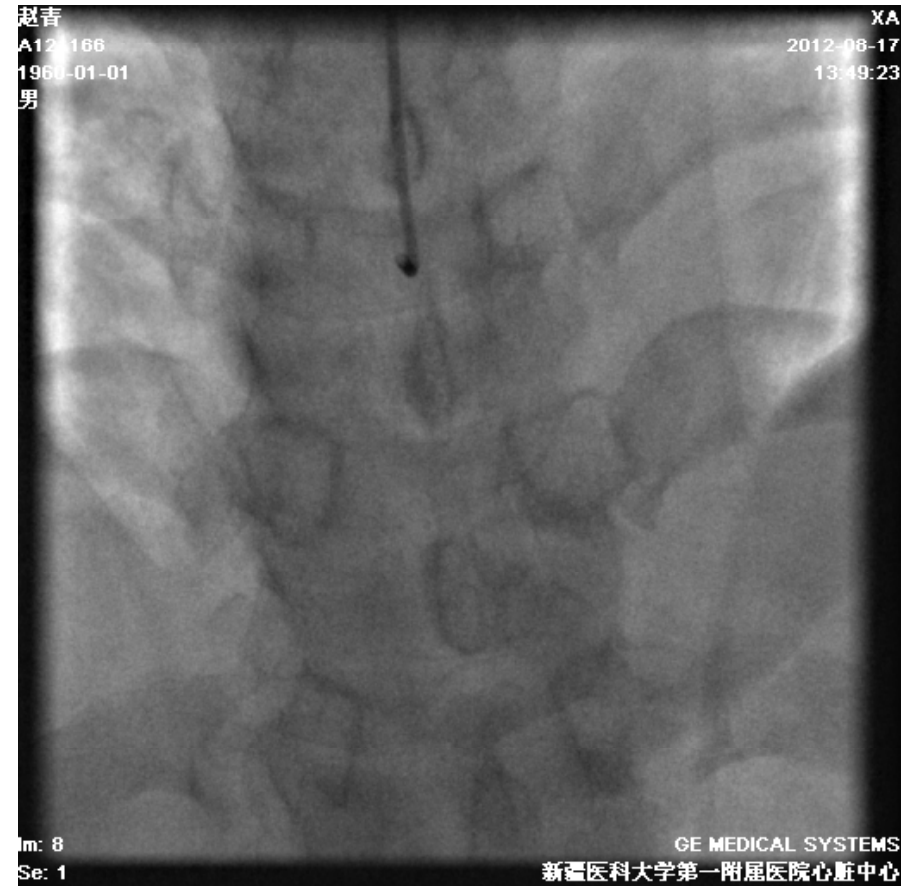
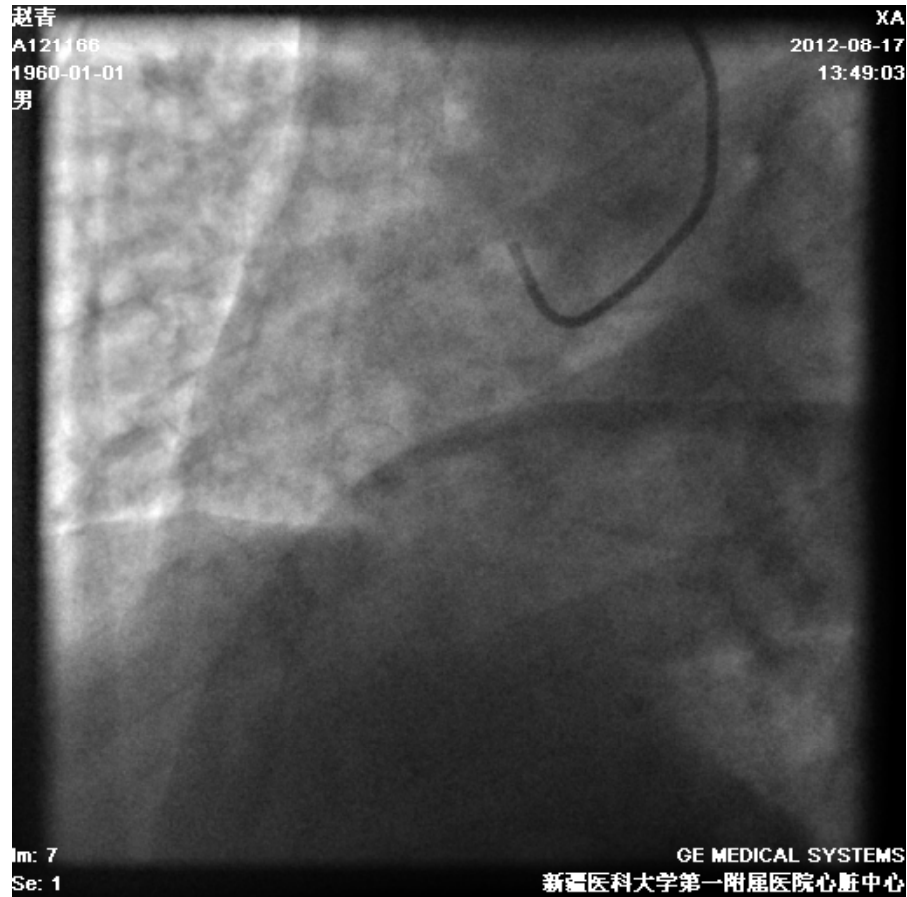
# CAG



# CAG



# CAG



## Collateral Channel Analysis





# Character of lesion

**A: RCA and LCX is mild stenosis**

**B: proximal of LAD CTO**

**C: Character of LAD lesion**

- \* morphology of the proximal cap of the CTO is blunt
- \* 2 side branches at cap level
- \* Lesion length is about 3cm
- ✓ robust collateral channel of RCA branch to distal of LAD
- ✓ “Island” , ipsilateral CCs







# Therapy plan

**A: medication treatment**

**B: CABG**

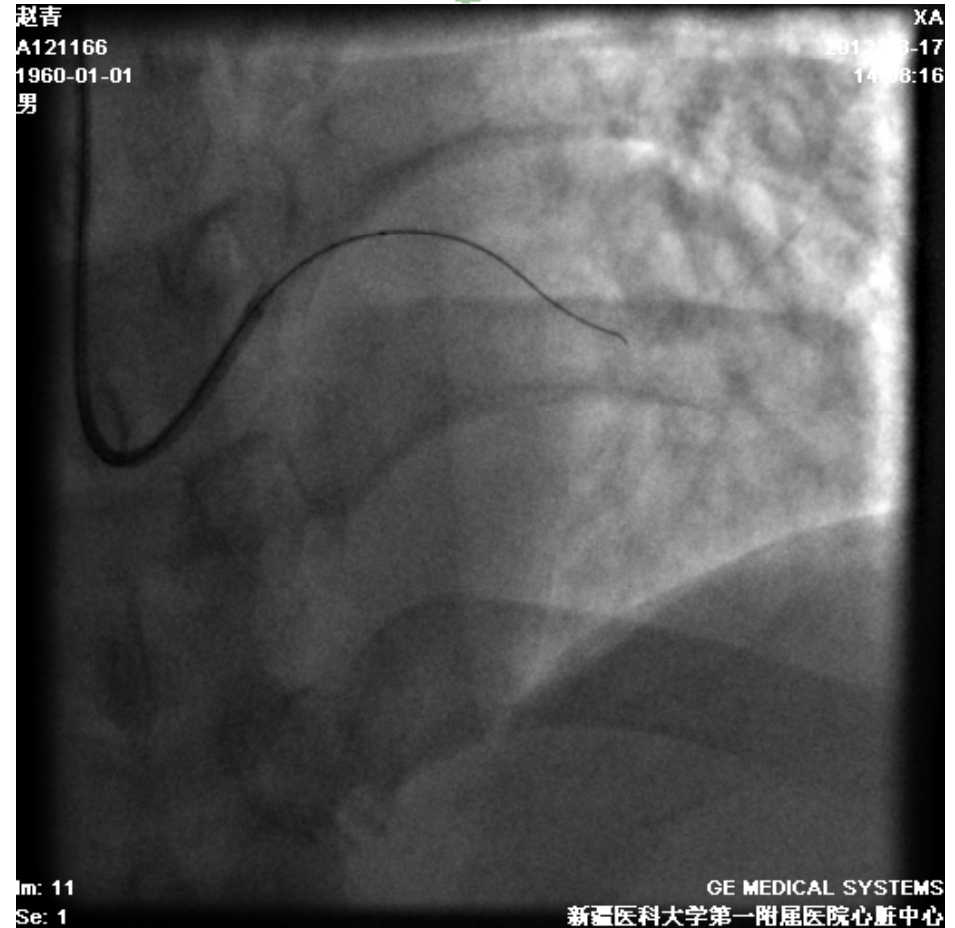
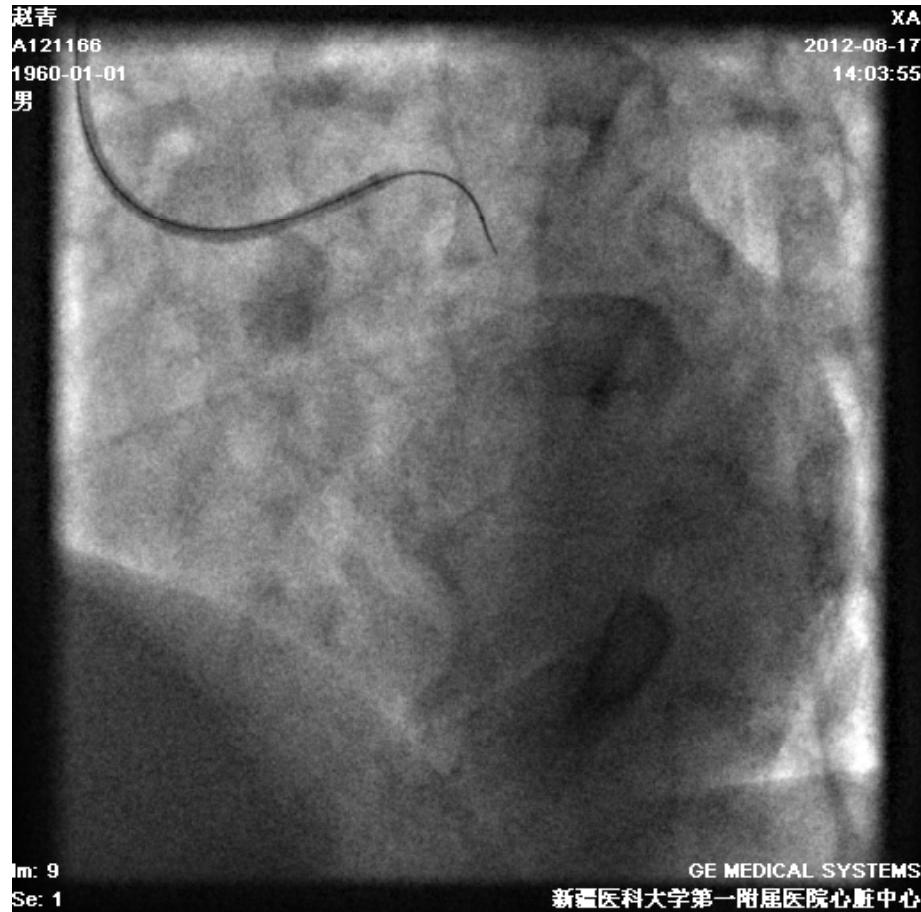
**C:PCI**

Antegrade approach

Retrograde approach



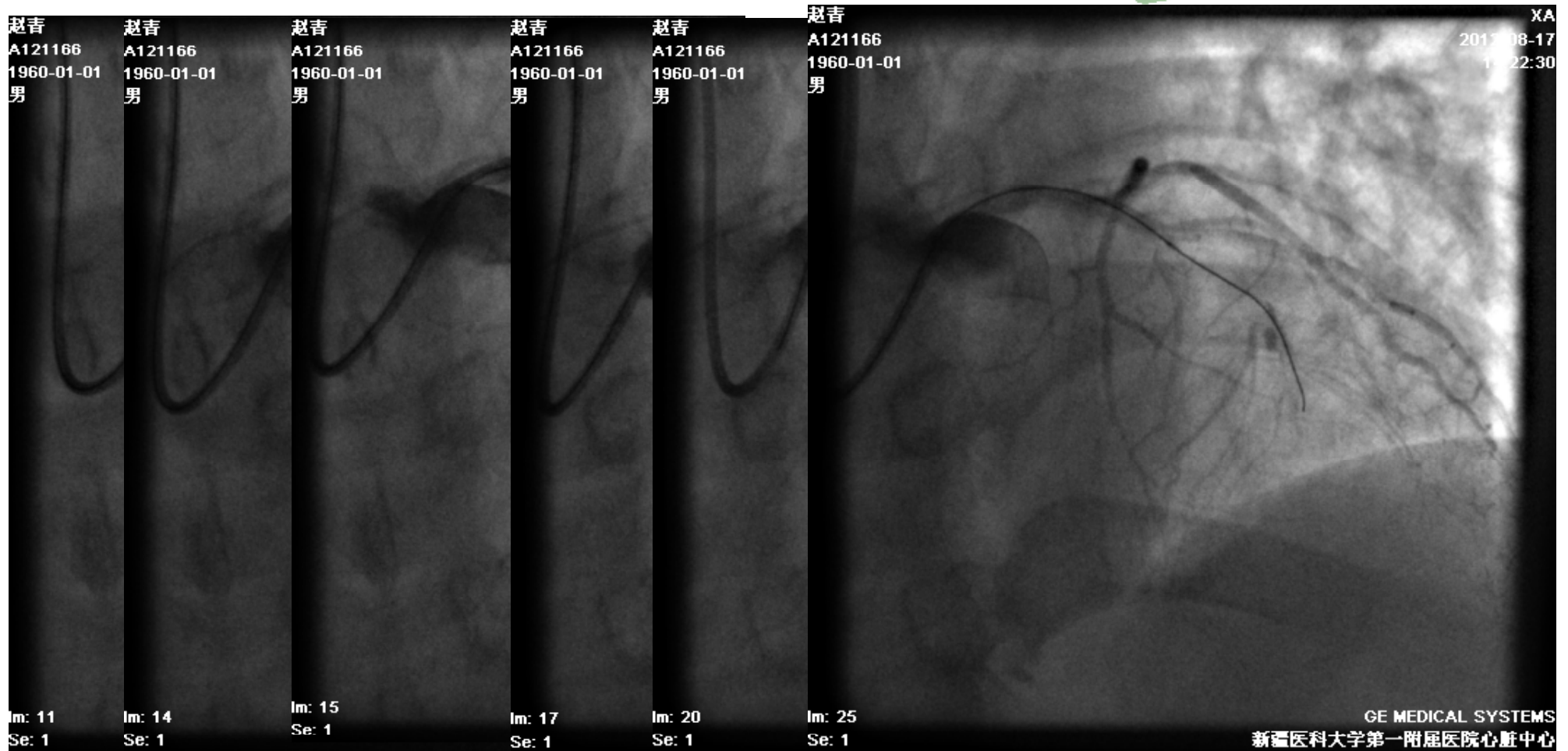
# Antegrade approach



EBU3.5 , FINECROSS、Fielder、M3、Conquest



# Antegrade approach



EBU3.5 , FINECROSS、Fielder、M3、Conquest

Result: Fail

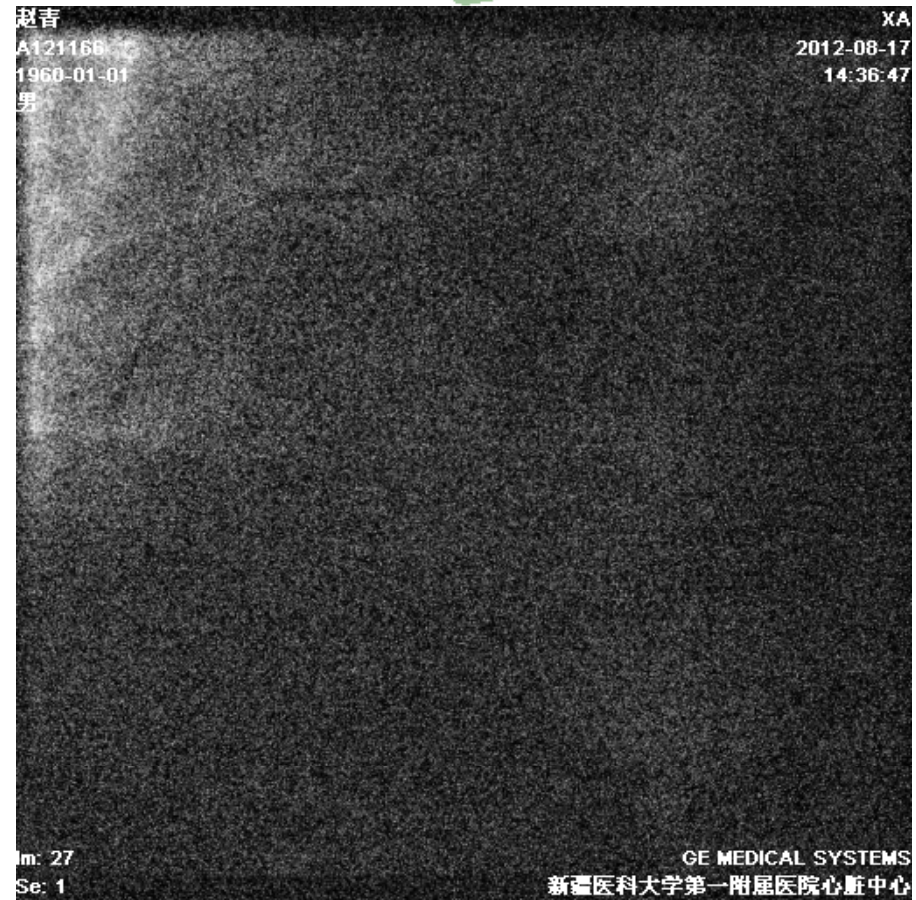
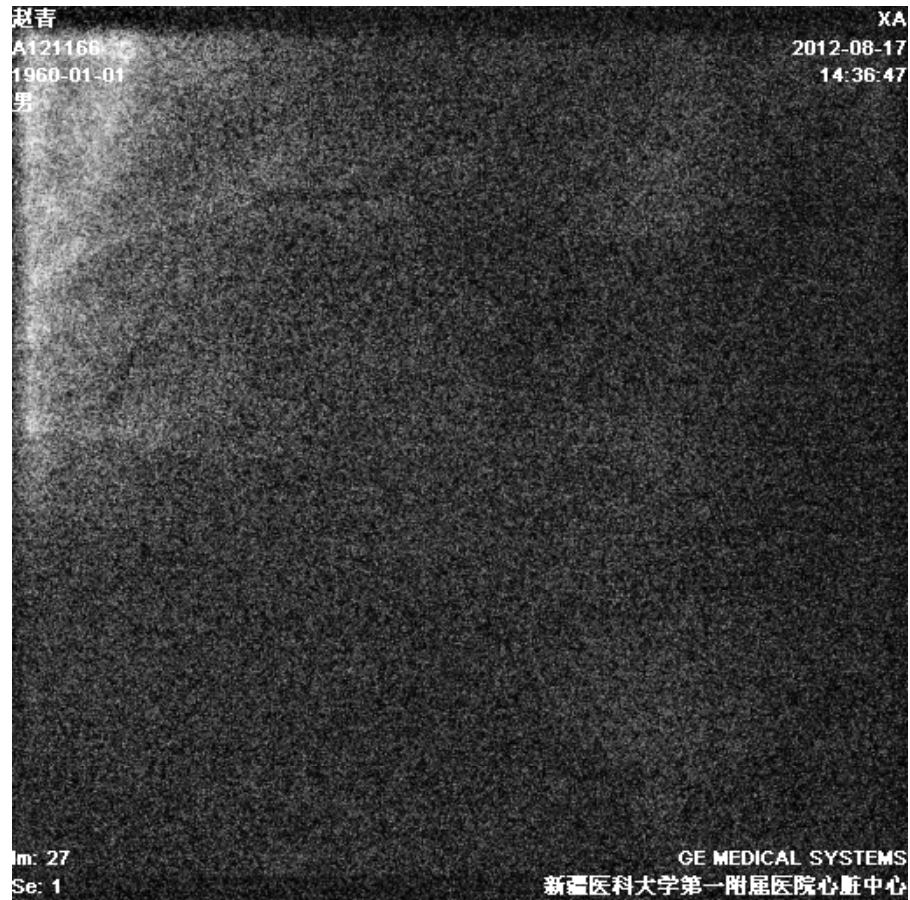


# Question # 1

- ❖ Next procedure
  - Antegrade approach
  - Retrograde approach
    - A. Kissing wire
    - B. CART
    - C. Reverse CART



# PCI



SAL1.0, ASAHI Corsair、Fielder FC



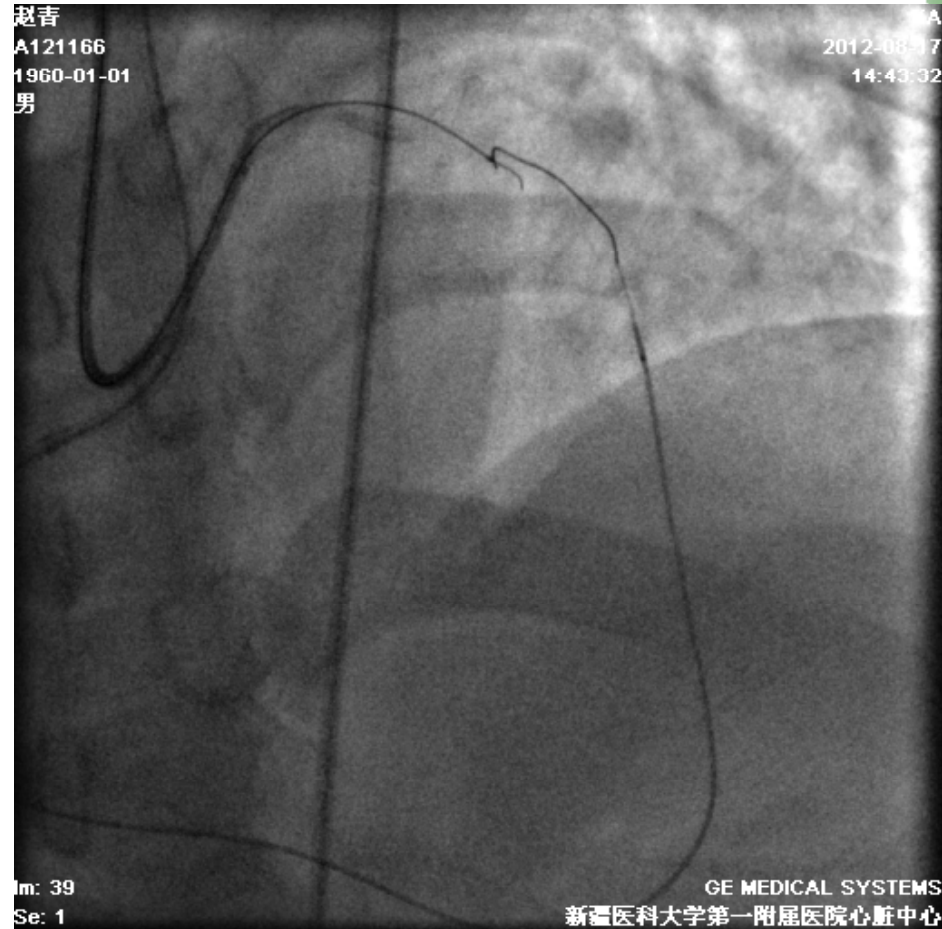
# PCI



kissing wire



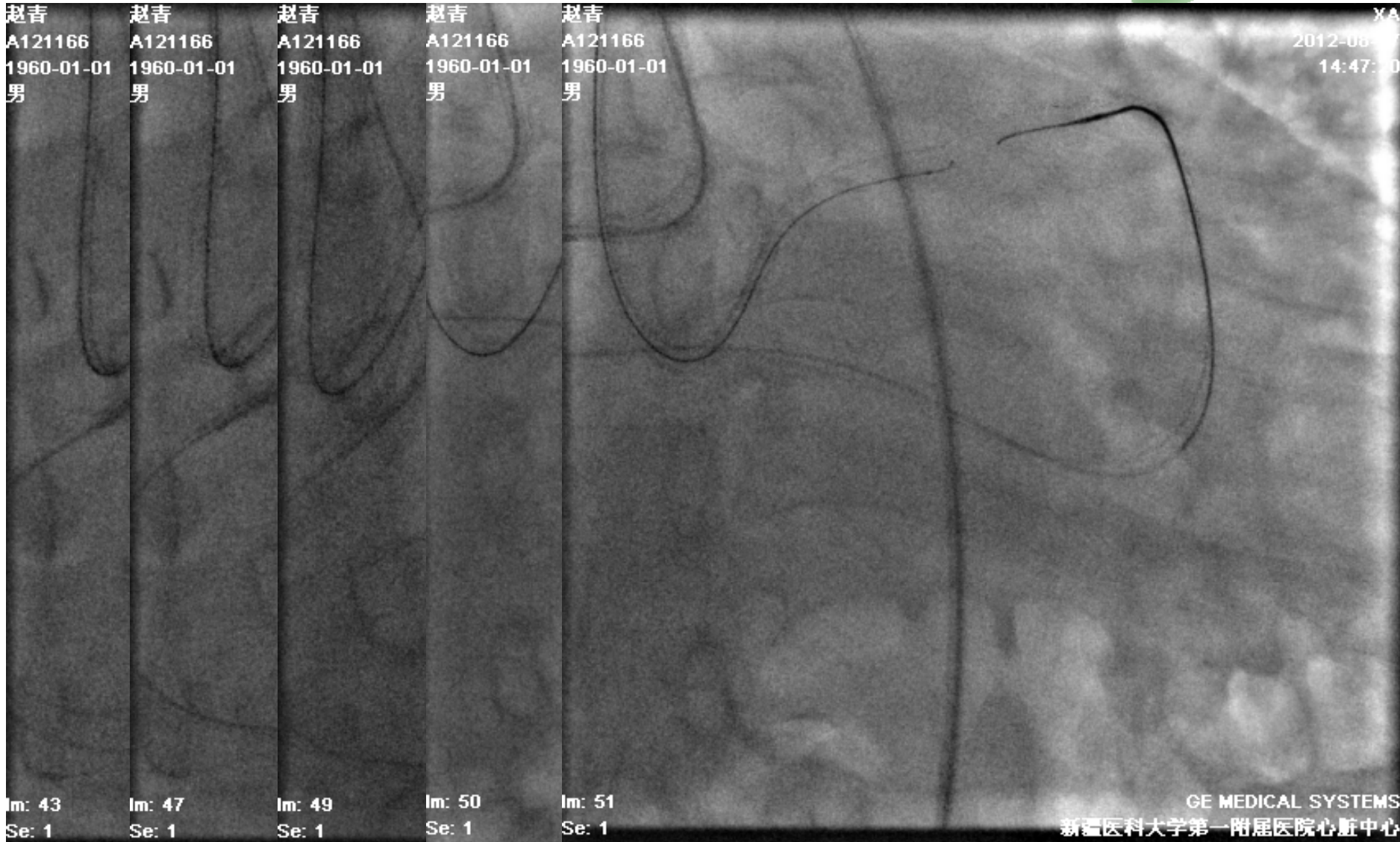
# PCI



both wires are advanced within the subintimal space  
but fail to meet in the same plane



# PCI

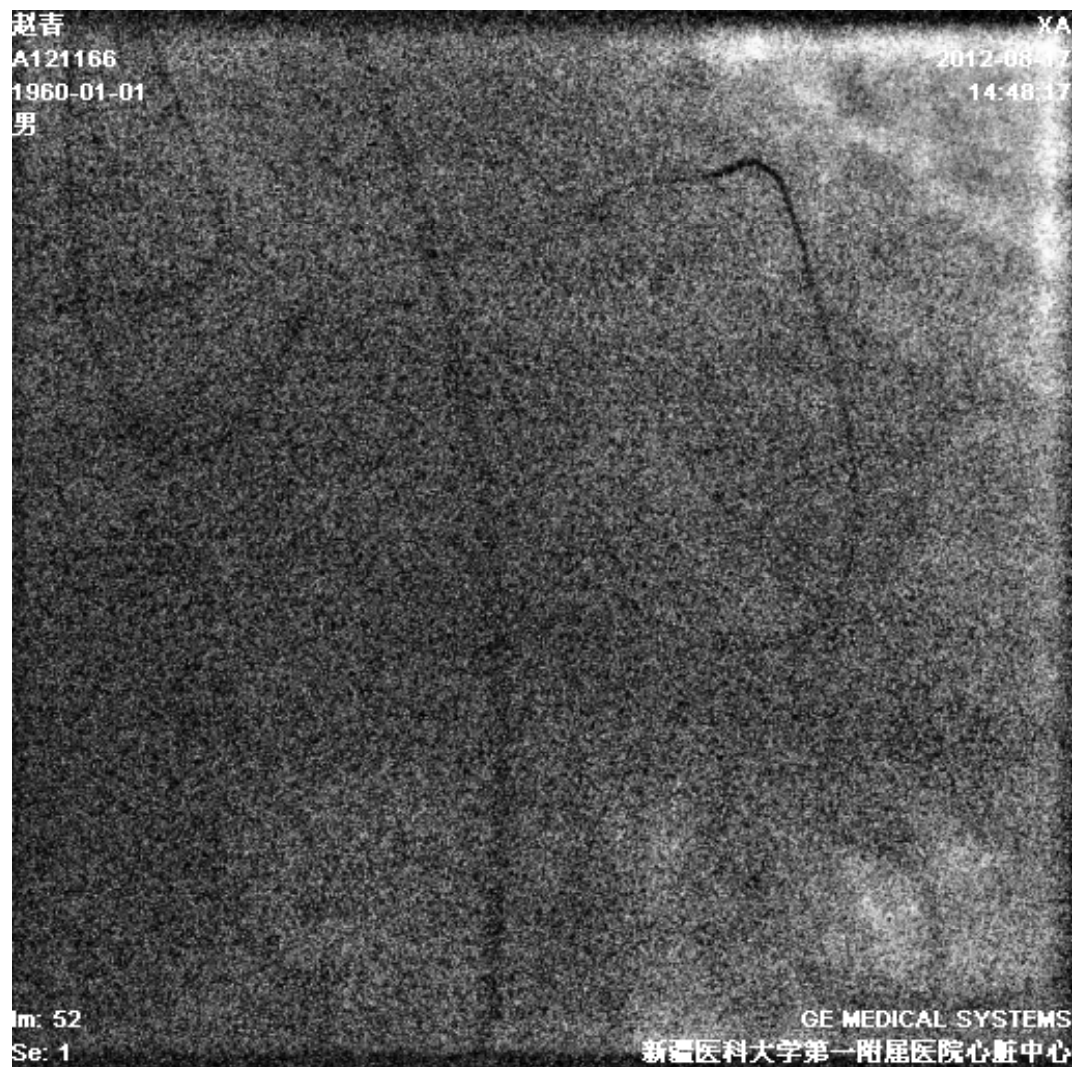


using an antegrade wire as landmark for the retrograde wiring

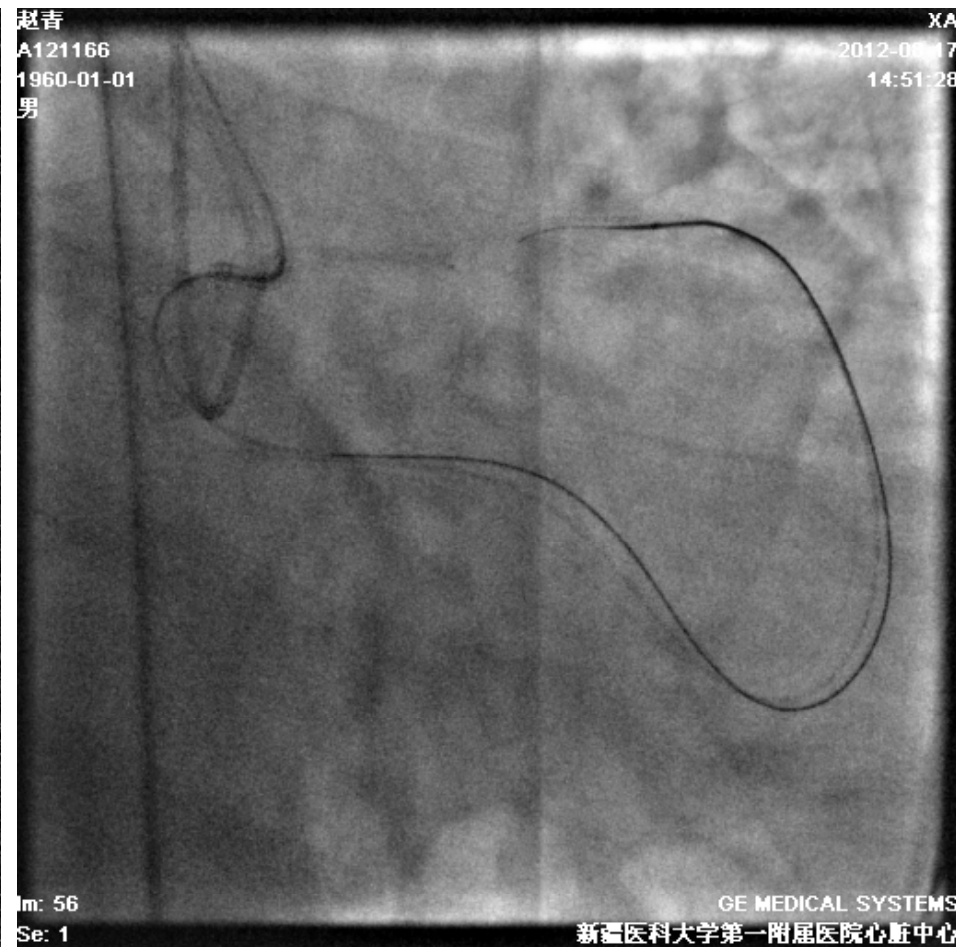
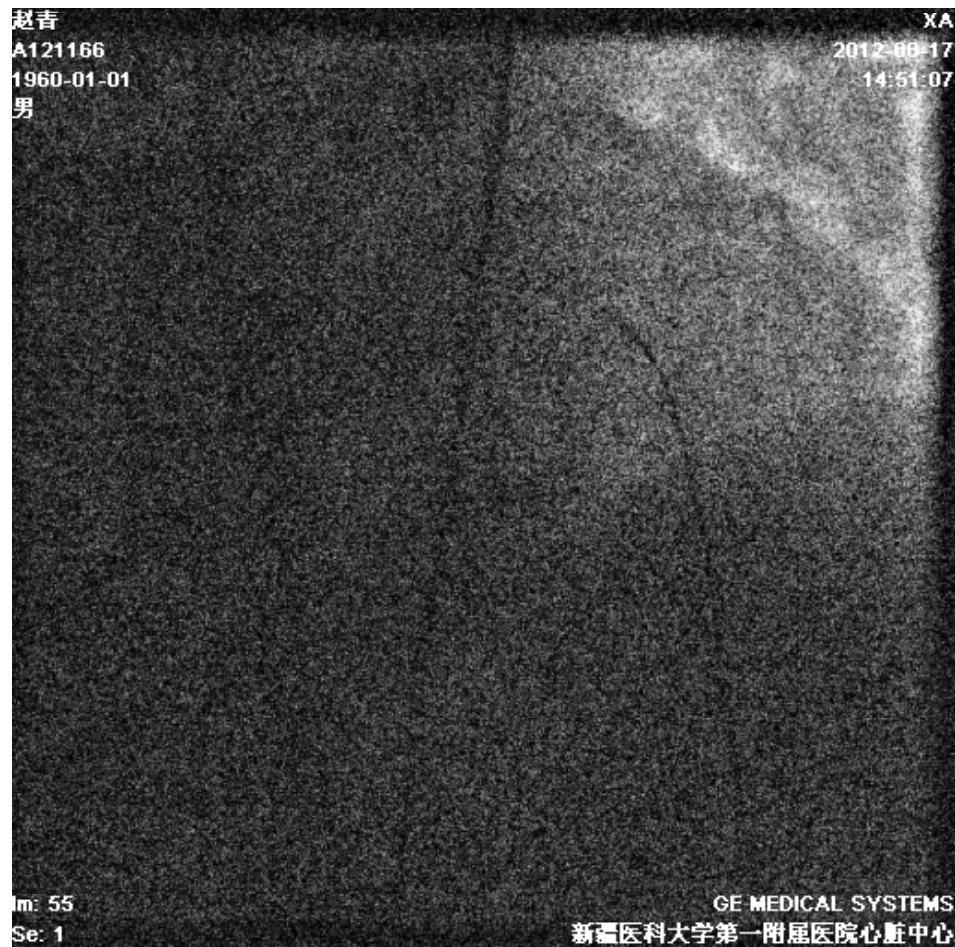




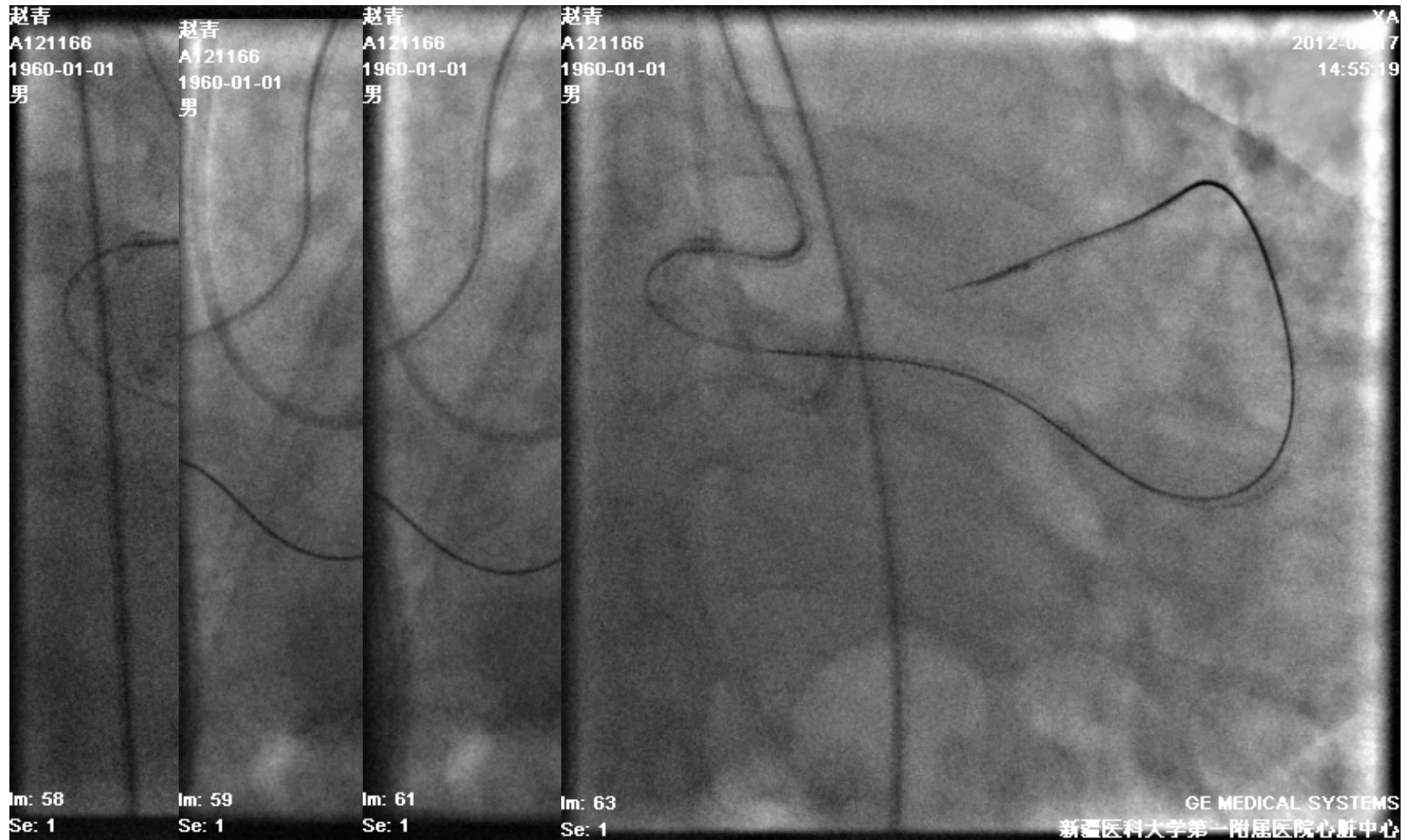
# PCI



# PCI



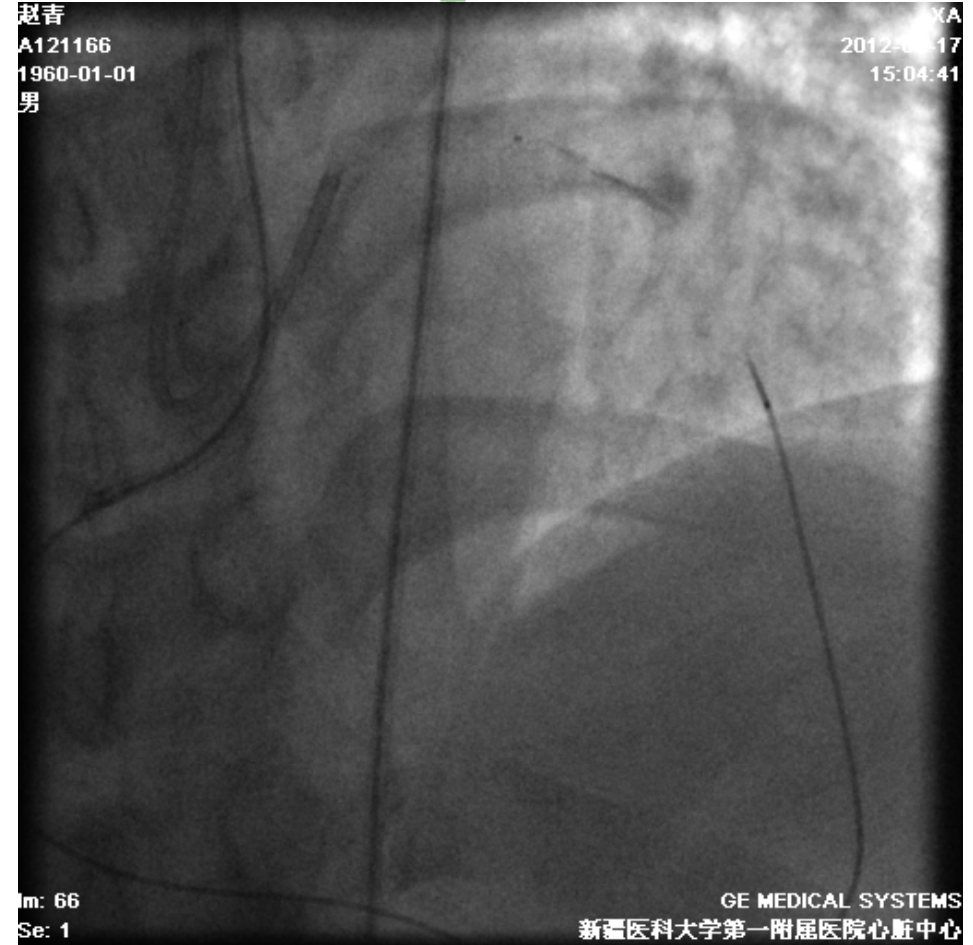
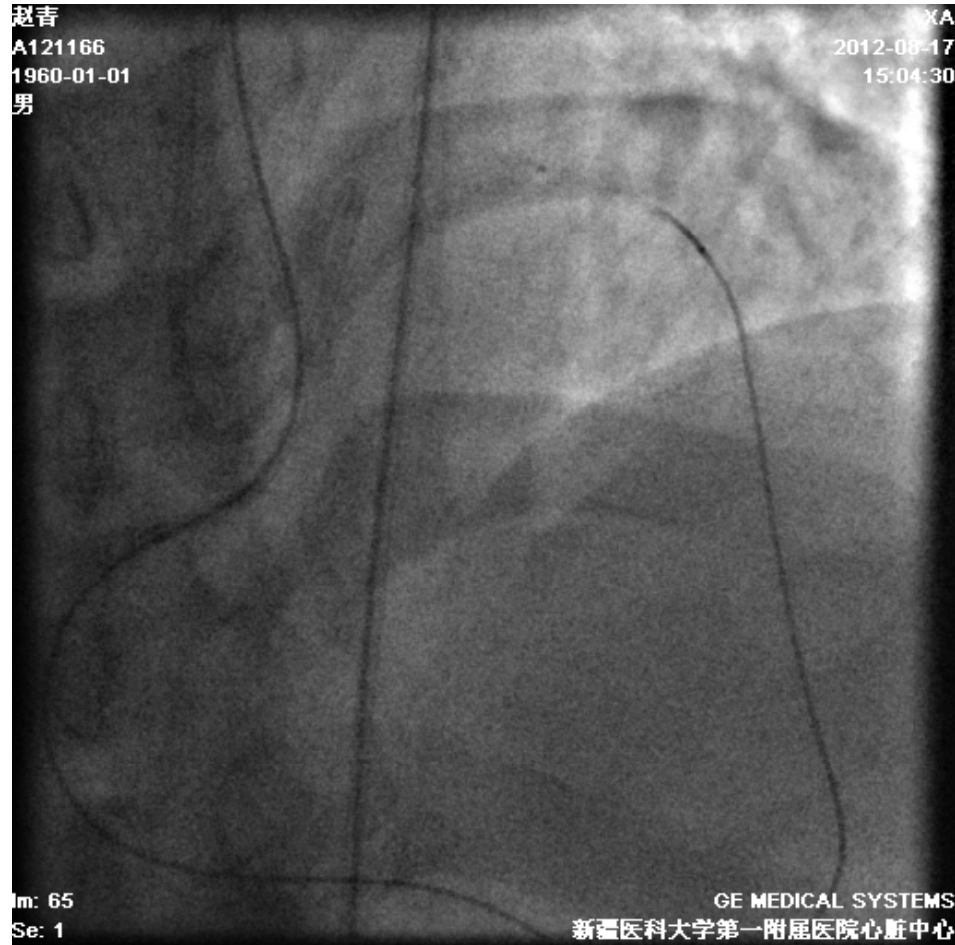
# PCI



M3, Conquest



# PCI



selective injections from the Corsair catheter



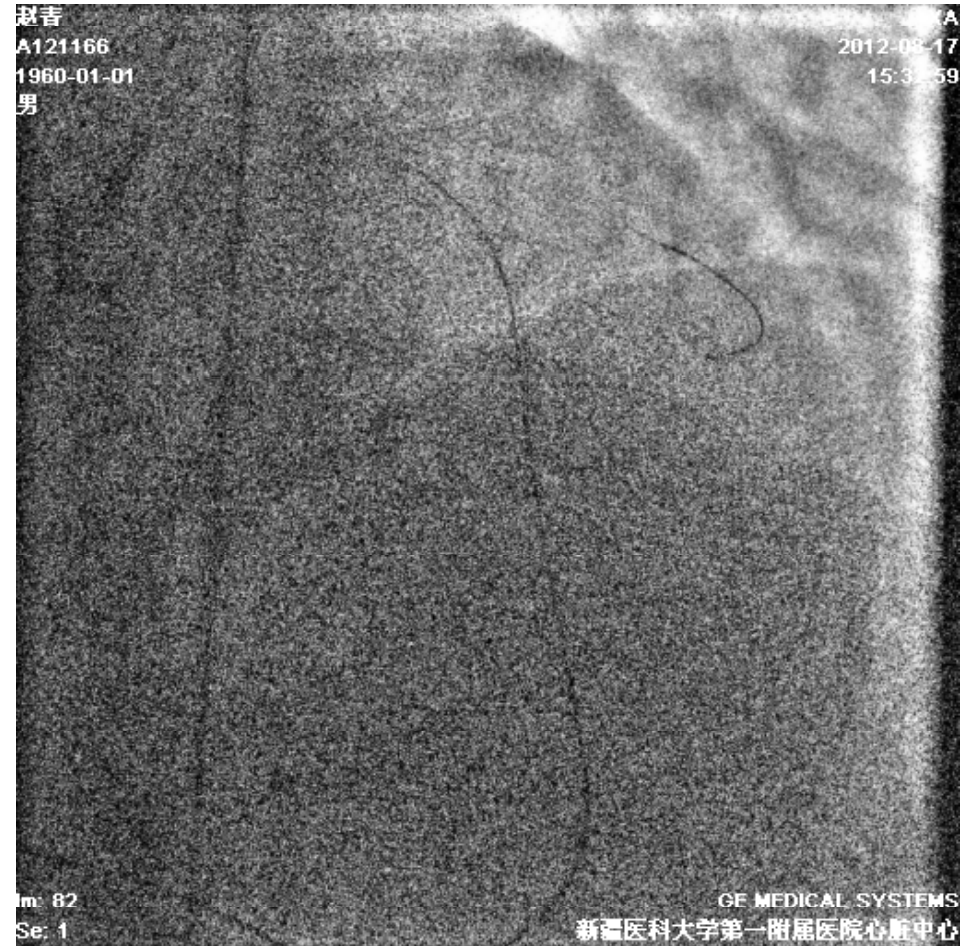
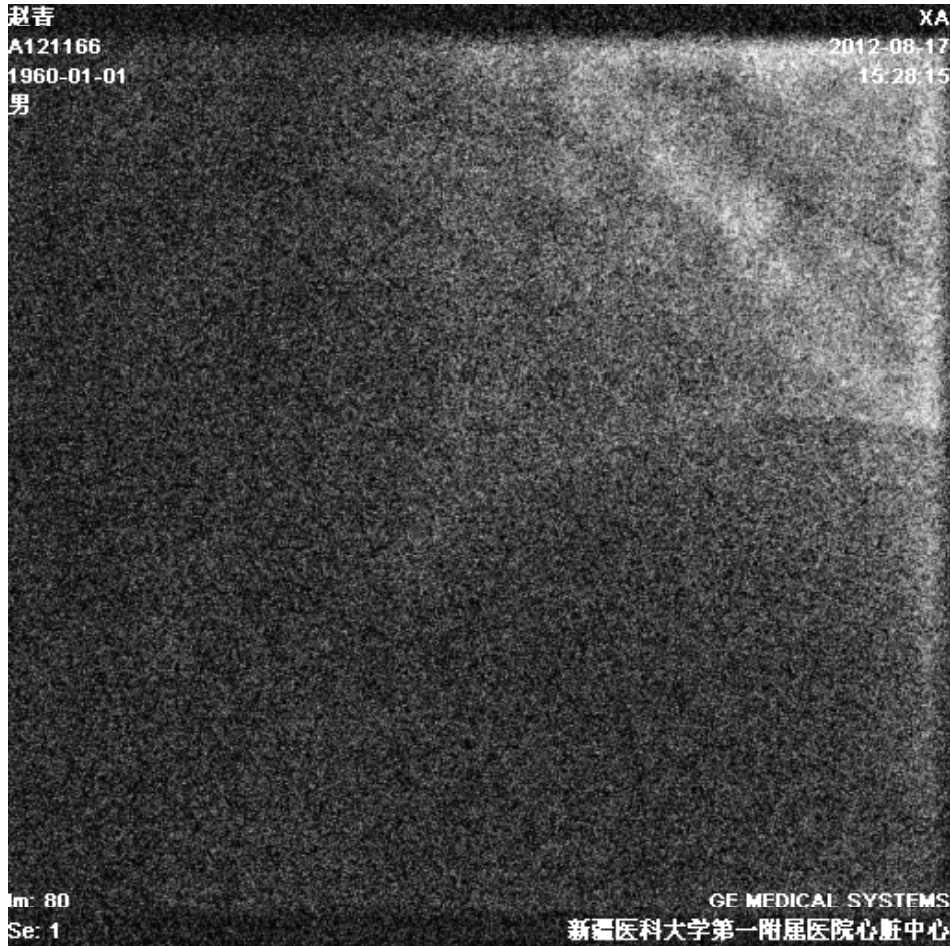
# Question # 2

Next procedure

- Retrograde technique
  - A. CART
  - B. Kissing wire
  - C. Reverse CART
  - D. IVUS guidance



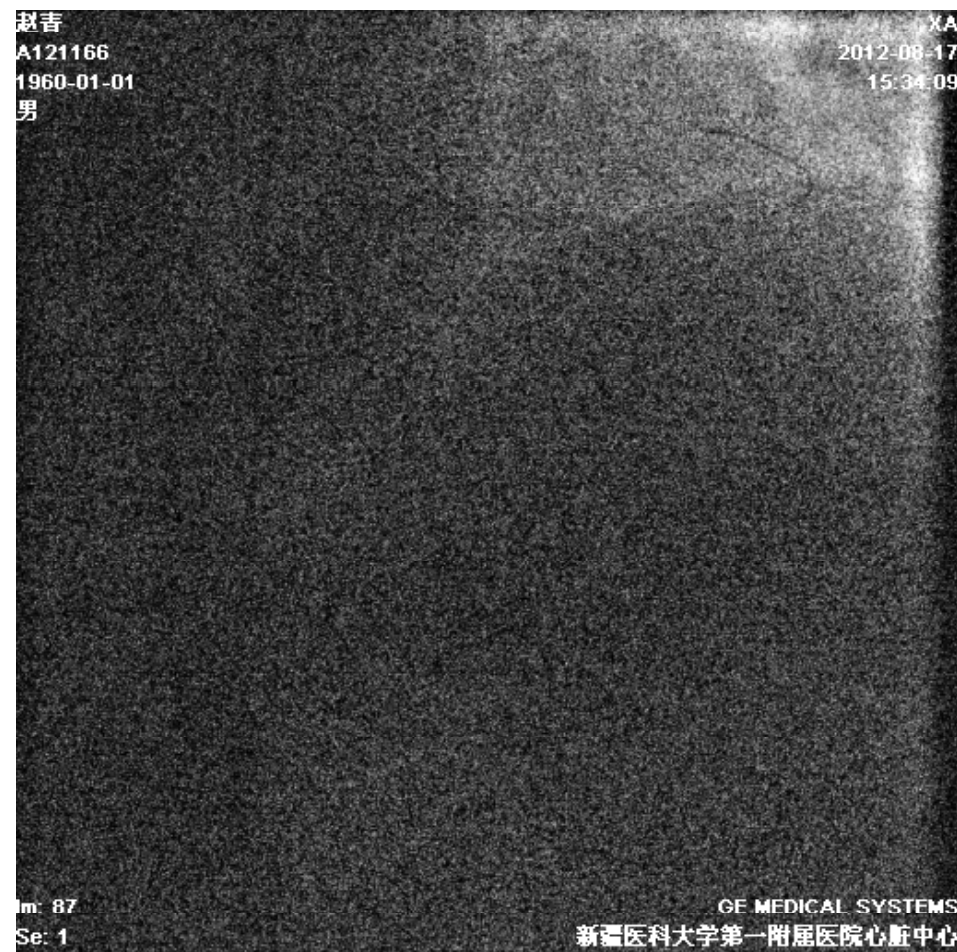
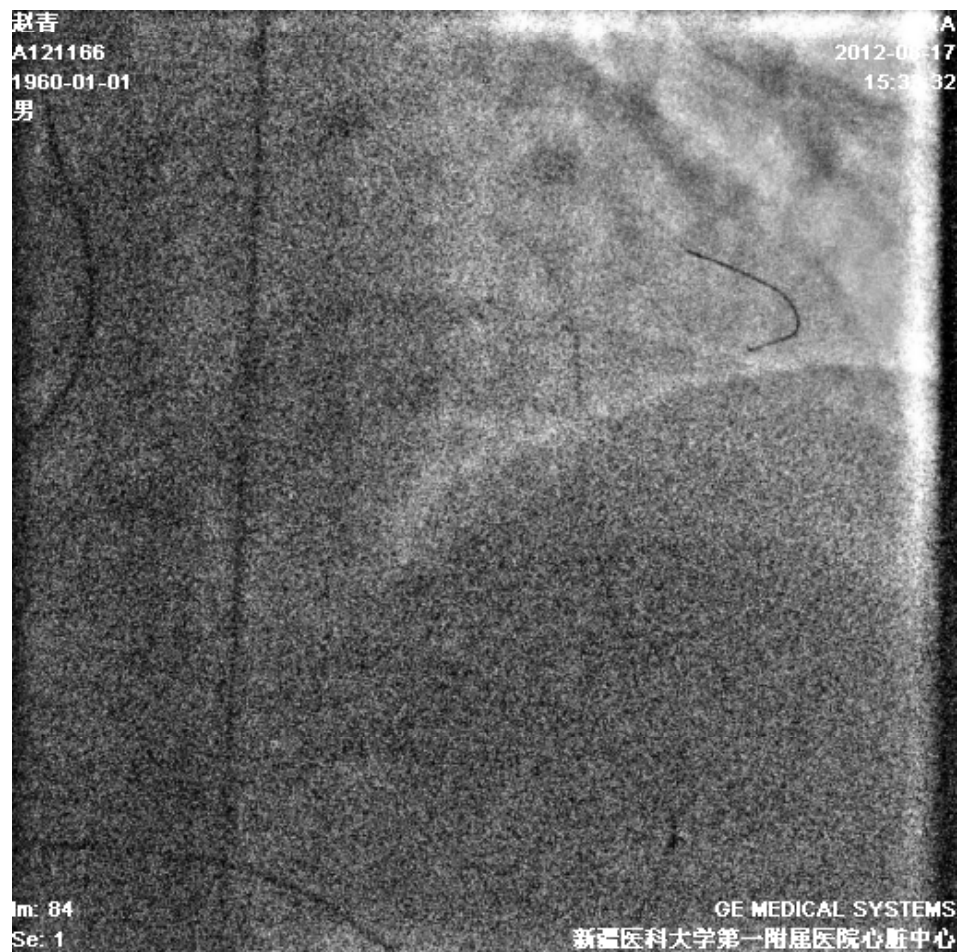
# PCI



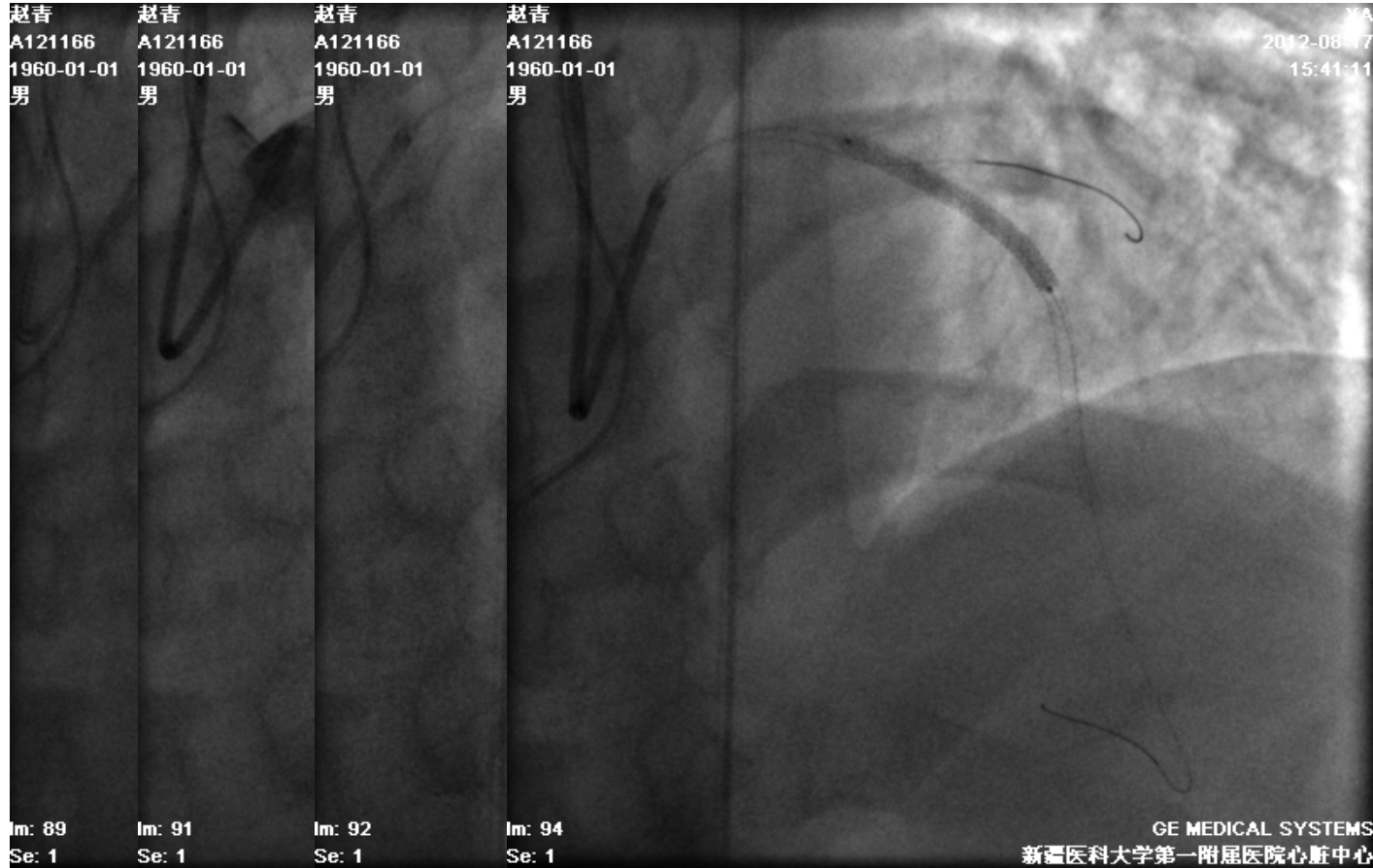
Double guide wire technique (buddy wire)



# PCI



# PCI

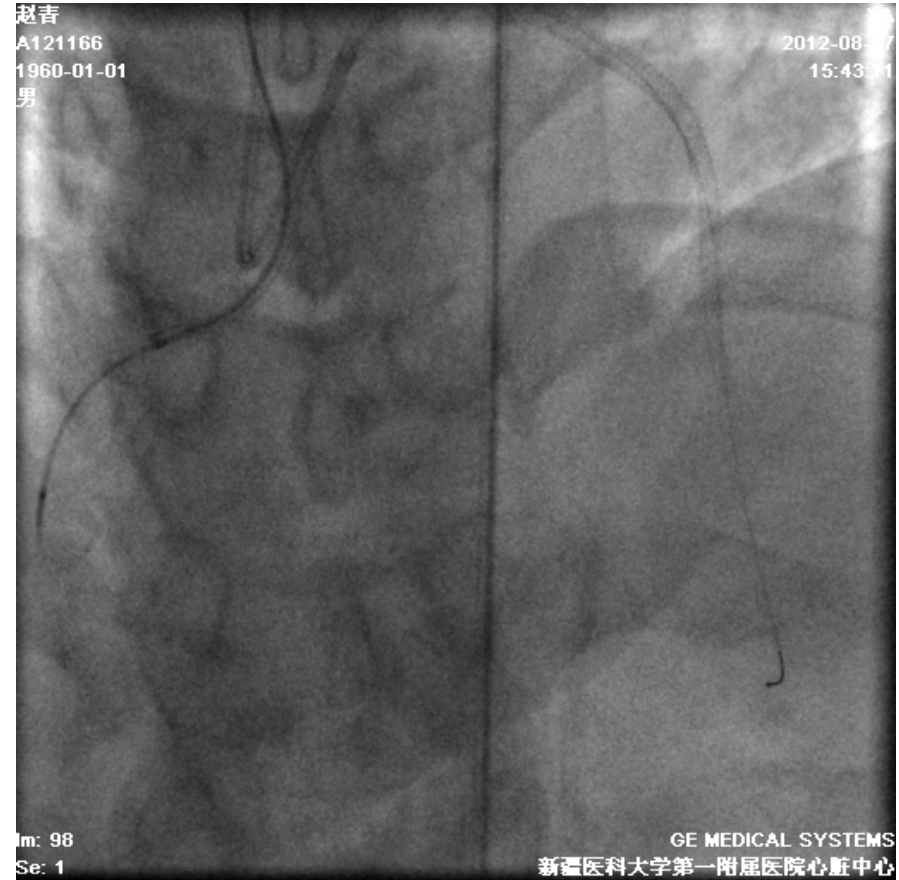
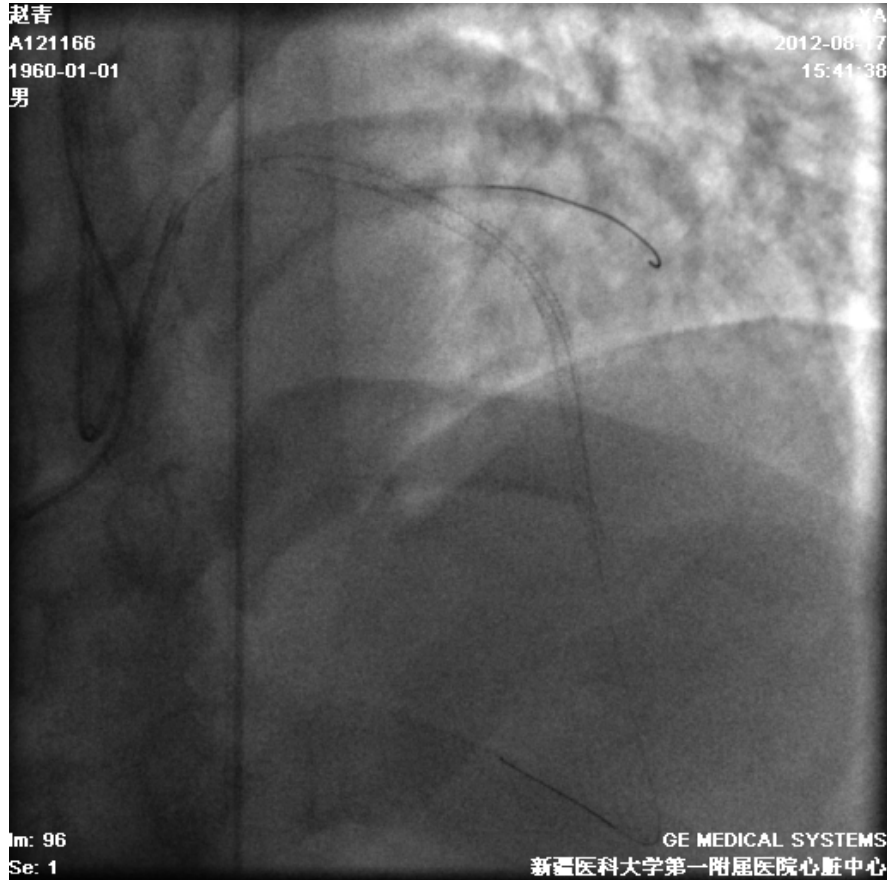


2.5\*20 balloon 8atm, 2.5\*38mm DES, 3.0\*38mm DES





# PCI



assess for potential CC damage



# Clinical outcomes

- ◆ BP and HR stable
- ◆ No chest pain
- ◆ Aspirin 100mg /d, Clopidogrel 150mg /d
- ◆ Follow up for 9 months, no Mace event





# Take Home Message:

## Rationale for CTO Revascularization

- ◆ Combined antegrade and retrograde subintimal tracking techniques to “connect the dots” from both ends of the occluded segment when conventional antegrade wire crossing is ineffective, unsafe, or inefficient
- ◆ Specialist techniques may involve both an antegrade and retrograde approach with the aim of passing the wire from the proximal to the distal true vessel lumen

