

# A Case of successful PCI for long CTO lesion in RCA



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**Hanyang University Medical Center Guri Hospital**

**68/M**

**c/c** dyspnea(NYHA IV) with chest discomfort (D: 10 days ago)

**P/I** He visited our ER with a chief complaint of dyspnea and intermittent chest discomfort.

## **Patient Information & History**

- Ex-Smoker(50PYS)
- HTN (+), DM (+) - medication for 5 years

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**V/S** 37.0°C – 24/min – 118/min – 120/80 mmHg

**P/E** S3 (+) with grade II/IV systolic murmur

Crackling sound in both lung fields

## Lab

### CBC

WBC 11,600 /mm<sup>3</sup>, Hb 16.7 g/dL, Platelet 208k /mm<sup>3</sup>

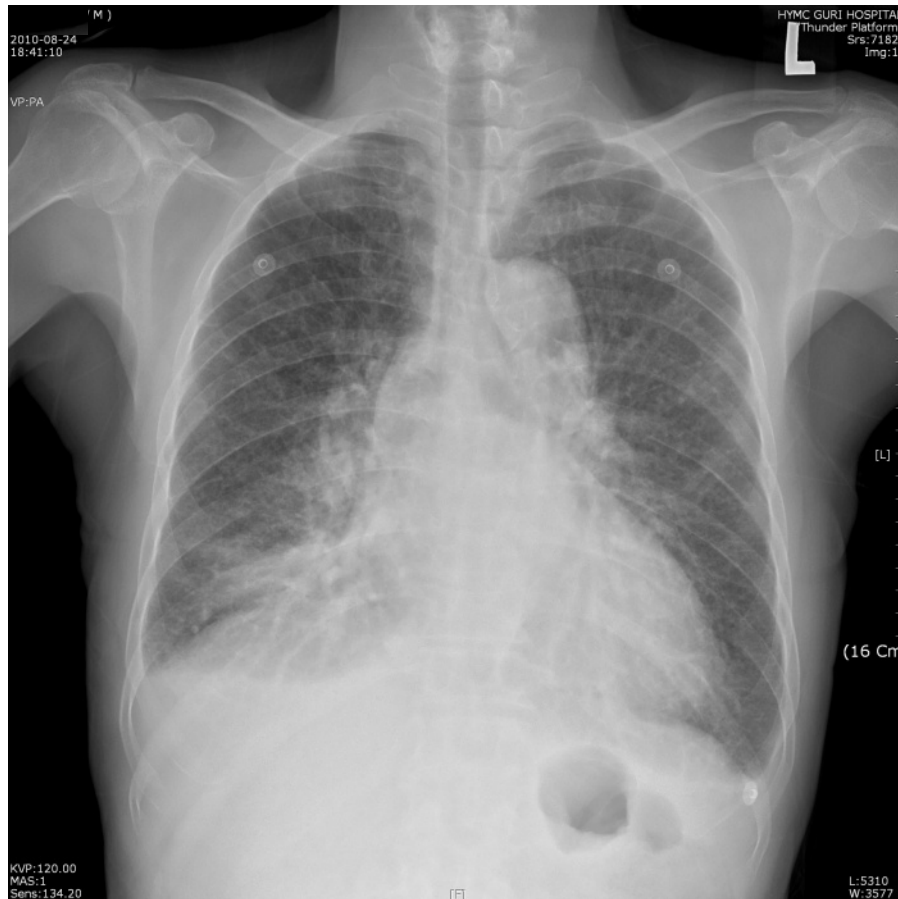
### Lipid profile

Total chol 177 mg/dL, TG 99 mg/dL, HDL-chol 54 mg/dl, LDL-chol 112 mg/dL

### Cardiac biomarkers

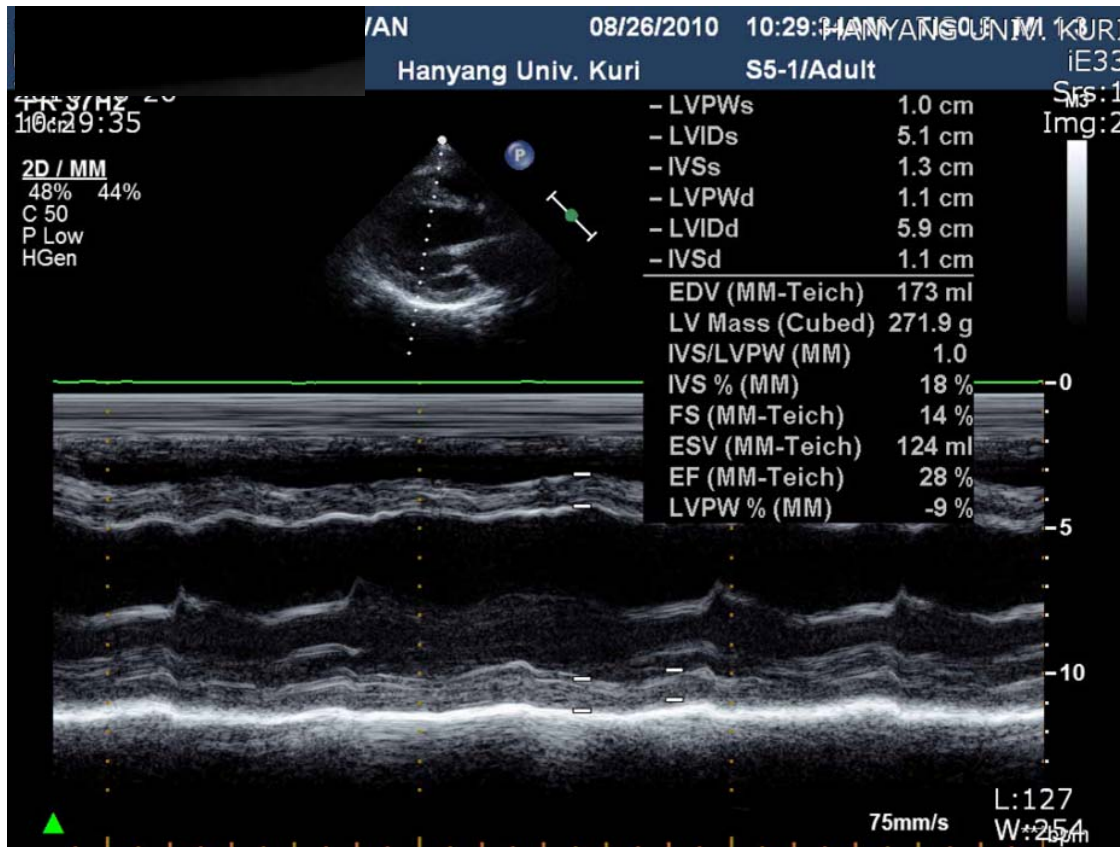
Myoglobin 38.1 ng/ml(<70) Troponin-T 0.03 ng/mL BNP 1077 pg/ml

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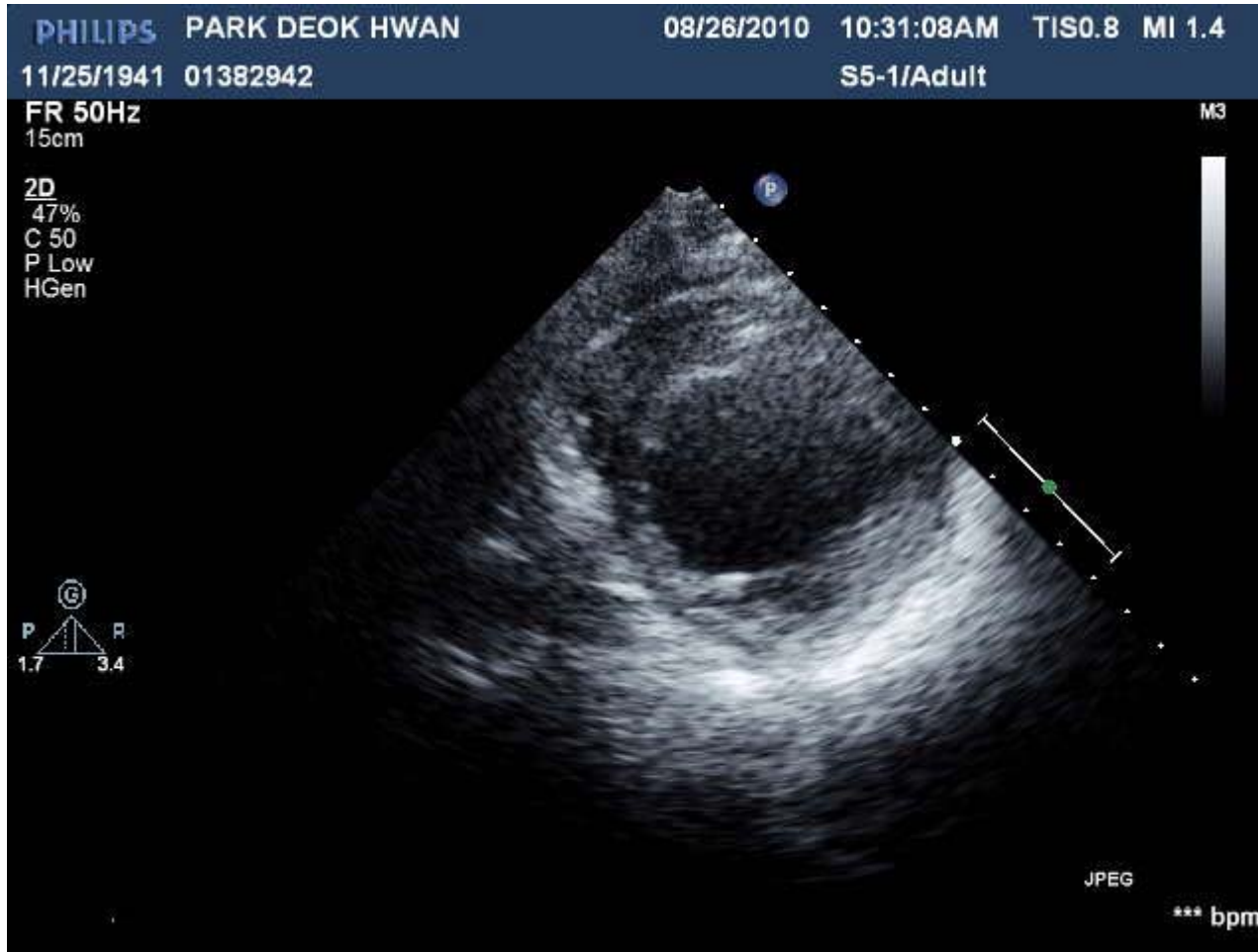
*Chest X-ray shows pulmonary edema, pleural effusion and cardiomegaly*

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*Echocardiography showed severely decreased left ventricular systolic function (EF=28%).*

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*Short axis view showed global hypokinesia especially RCA territory.*

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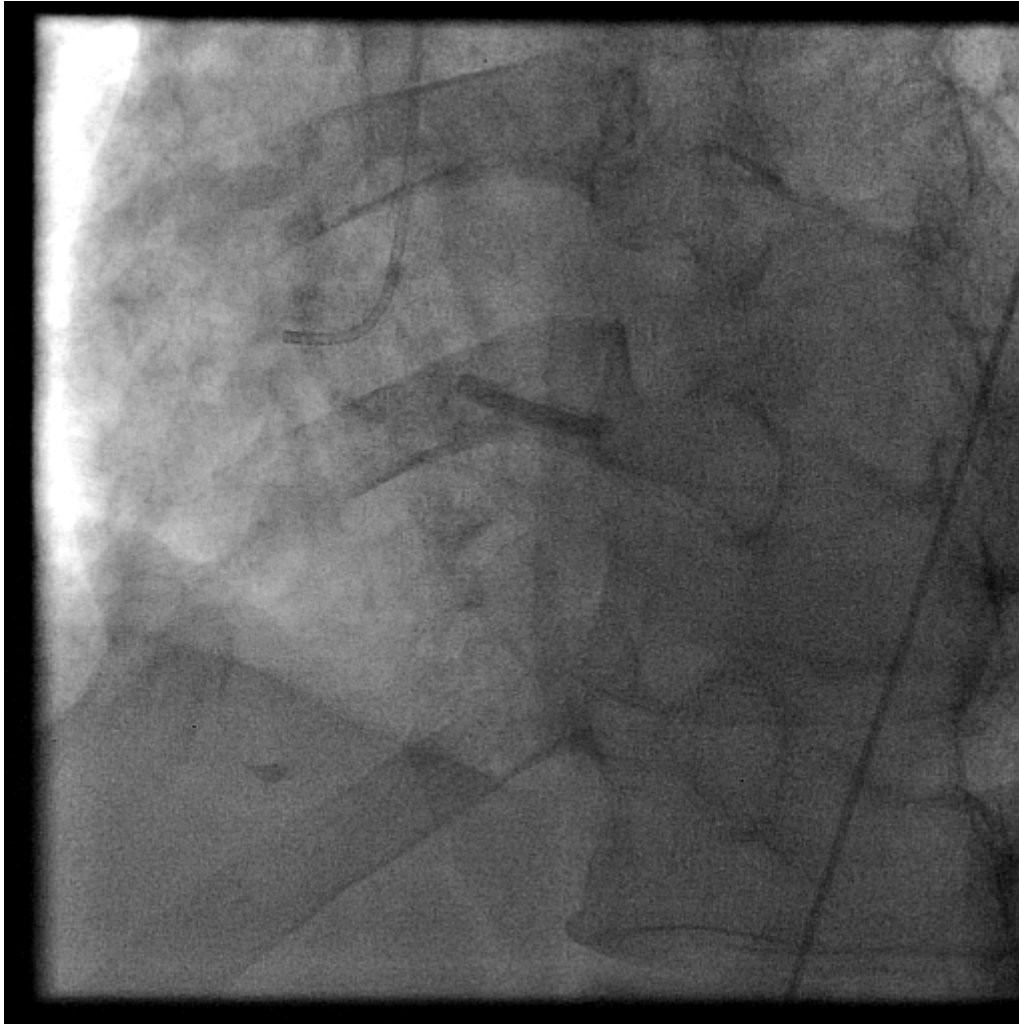
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# A Case of successful PCI for long CTO lesion in RCA



*CTO lesion at proximal-distal RCA and collaterals from LAD through septal branch to distal RCA*

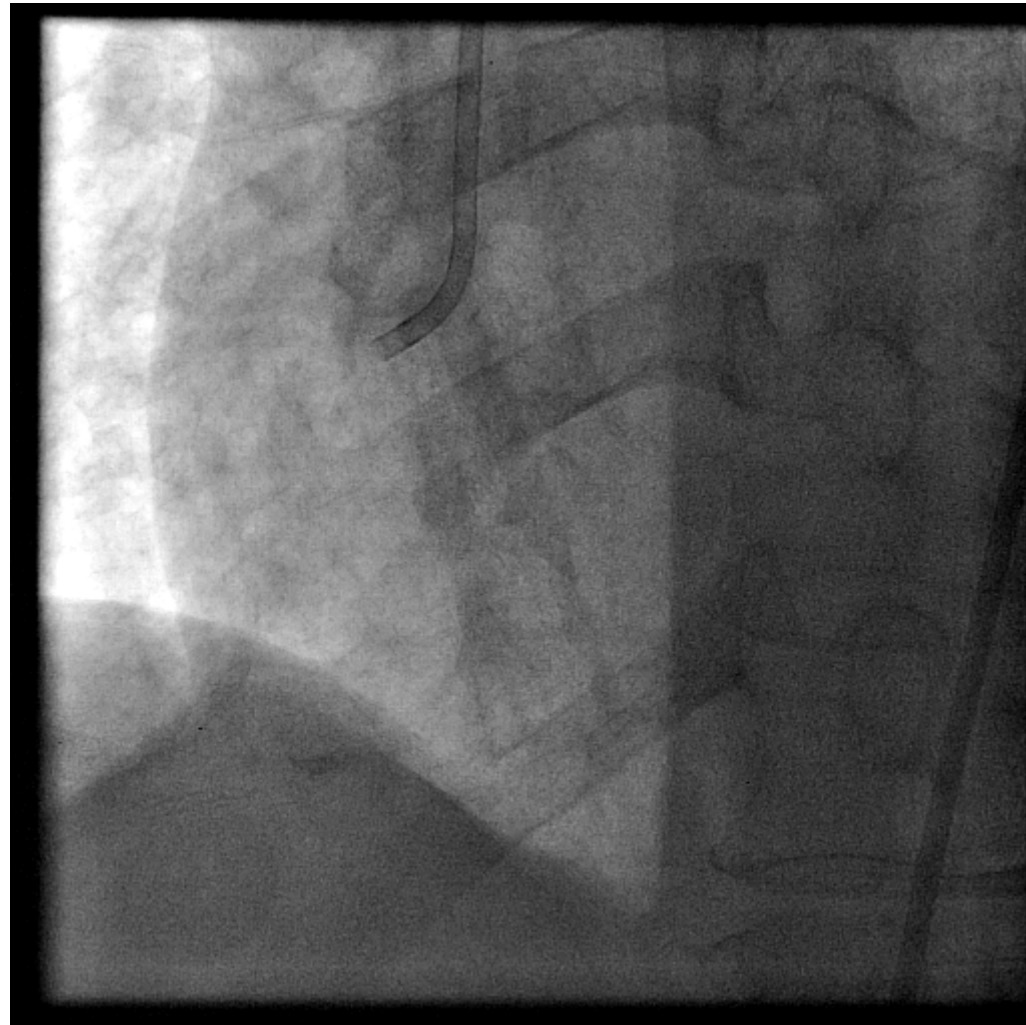
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*CTO lesion at proximal-distal RCA and collaterals from LAD through septal branch to distal RCA*



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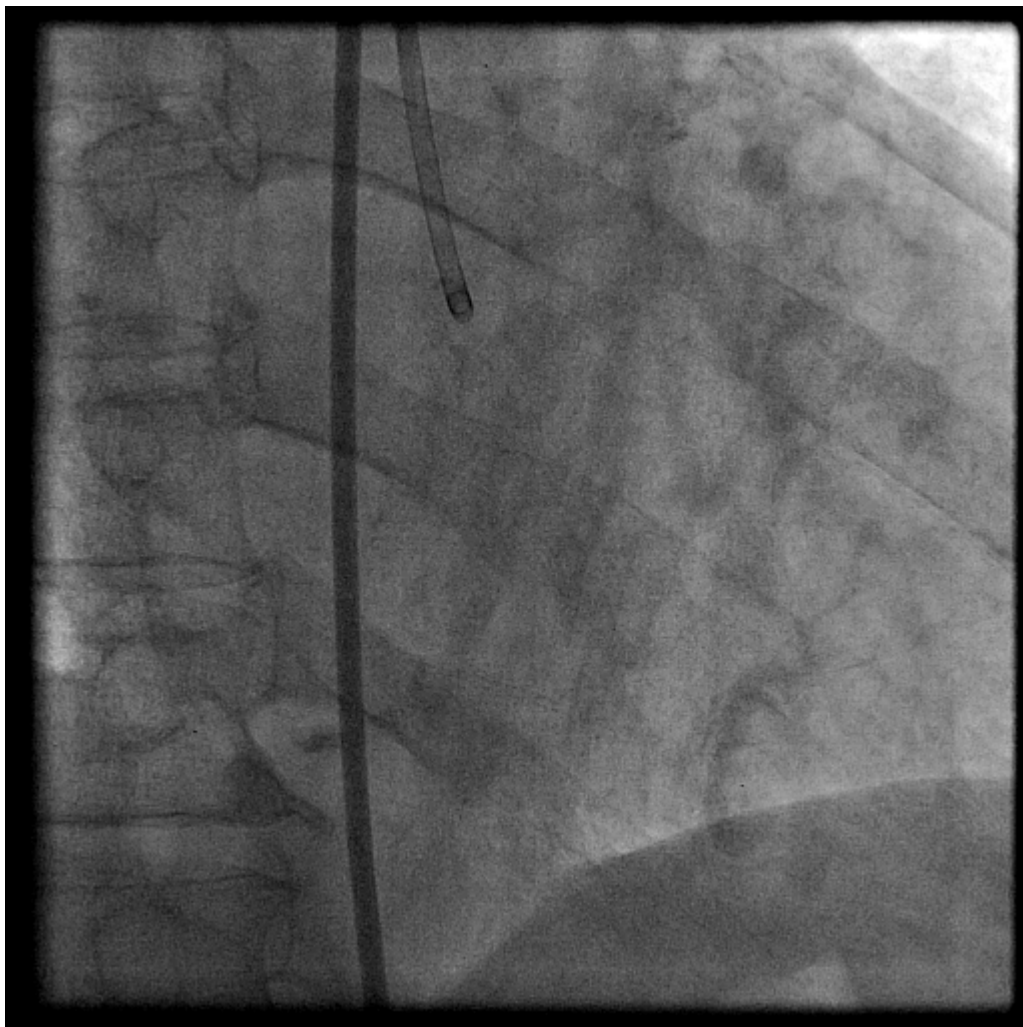
## Guiding catheter

*An 8Fr Launcher JR 4.0 guiding catheter was engaged into the RCA ostium via right transfemoral approach.*

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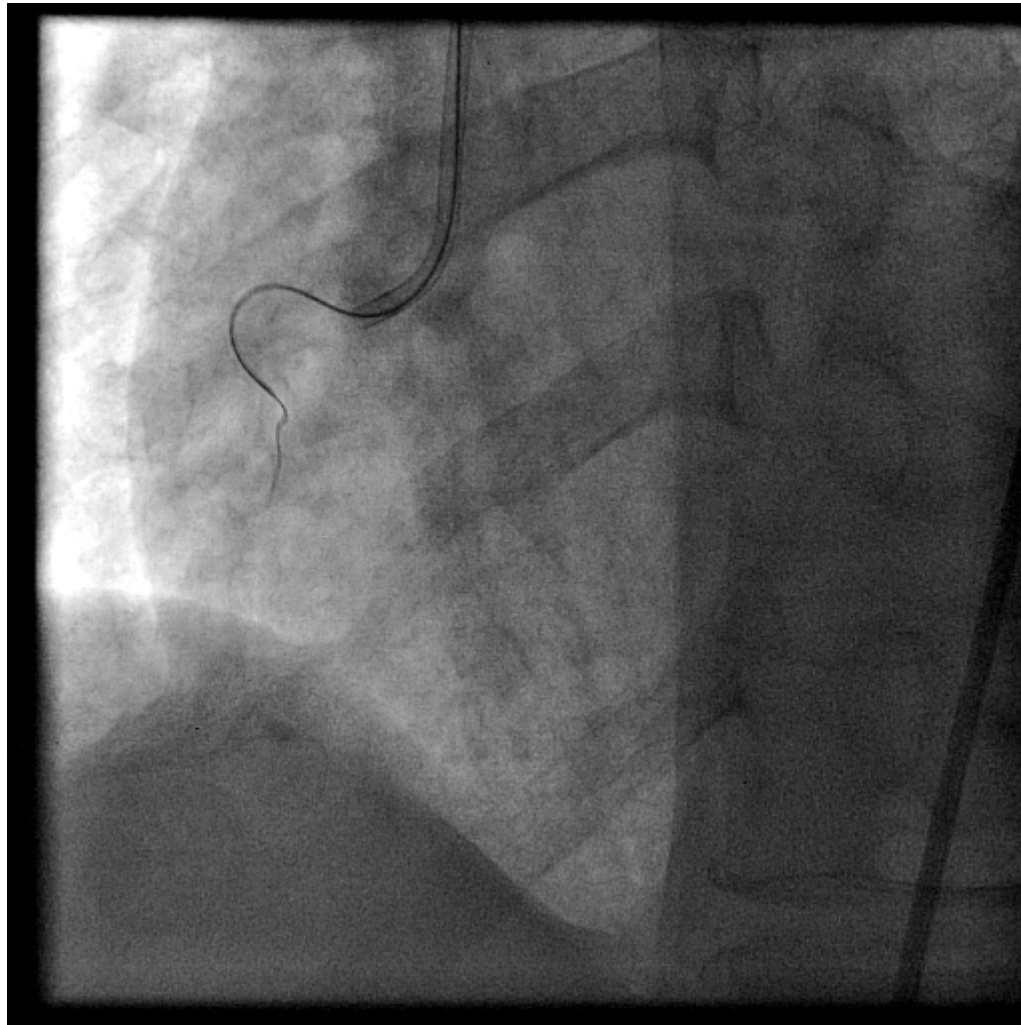
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**Guiding catheter**

*RAO view*

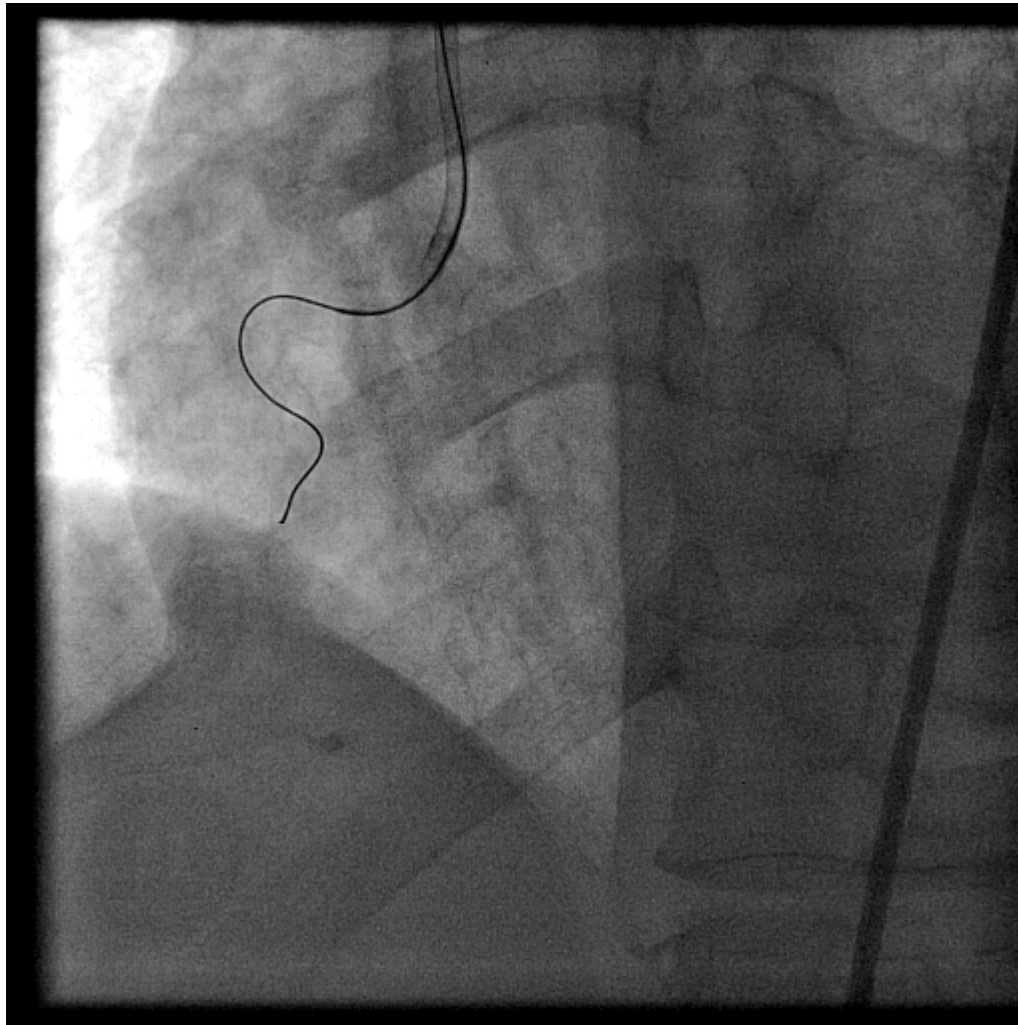
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## Guide wire

*0.0014 Fielder XT GW  
within  
microcatheter(Terumo  
2.4F Progreat) failed to  
pass the CTO lesion.*

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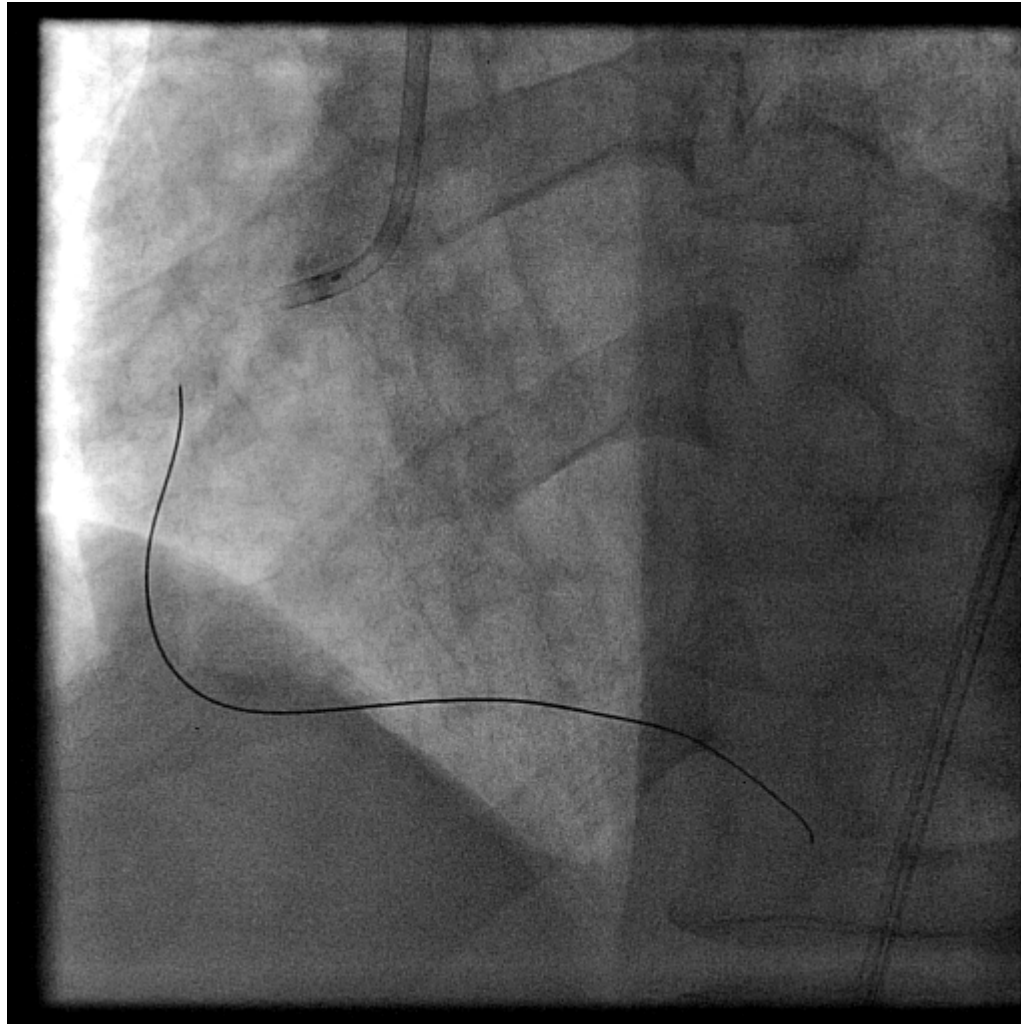


## Guide wire

*0.0014 Miracle 3g GW could pass the lesion into the distal true lumen.*



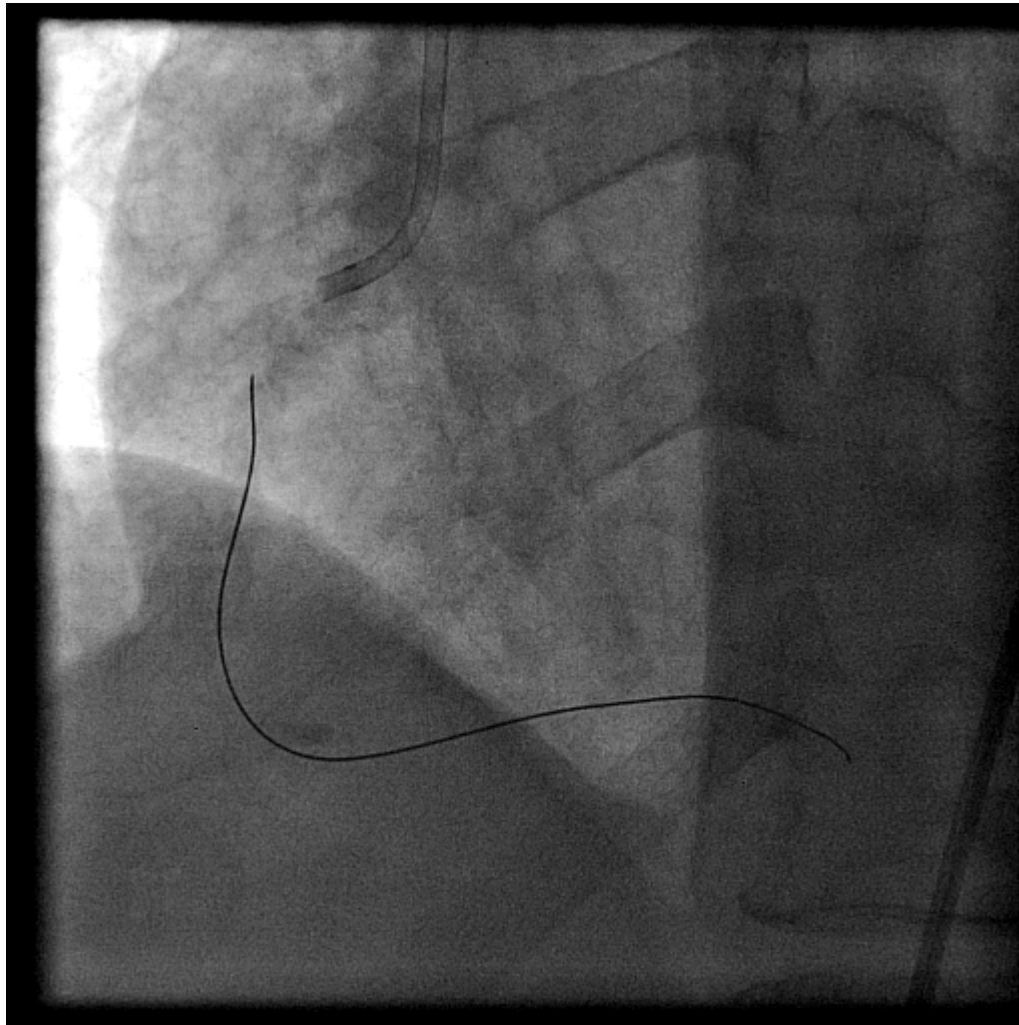
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## Guide wire

*Miracle 3g GW could pass the lesion into the true lumen.*

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## Predilatation

*Lacrosse Balloon*

- 1.3x10 mm

*Splinter Balloon*

- 1.25x15 mm for distal

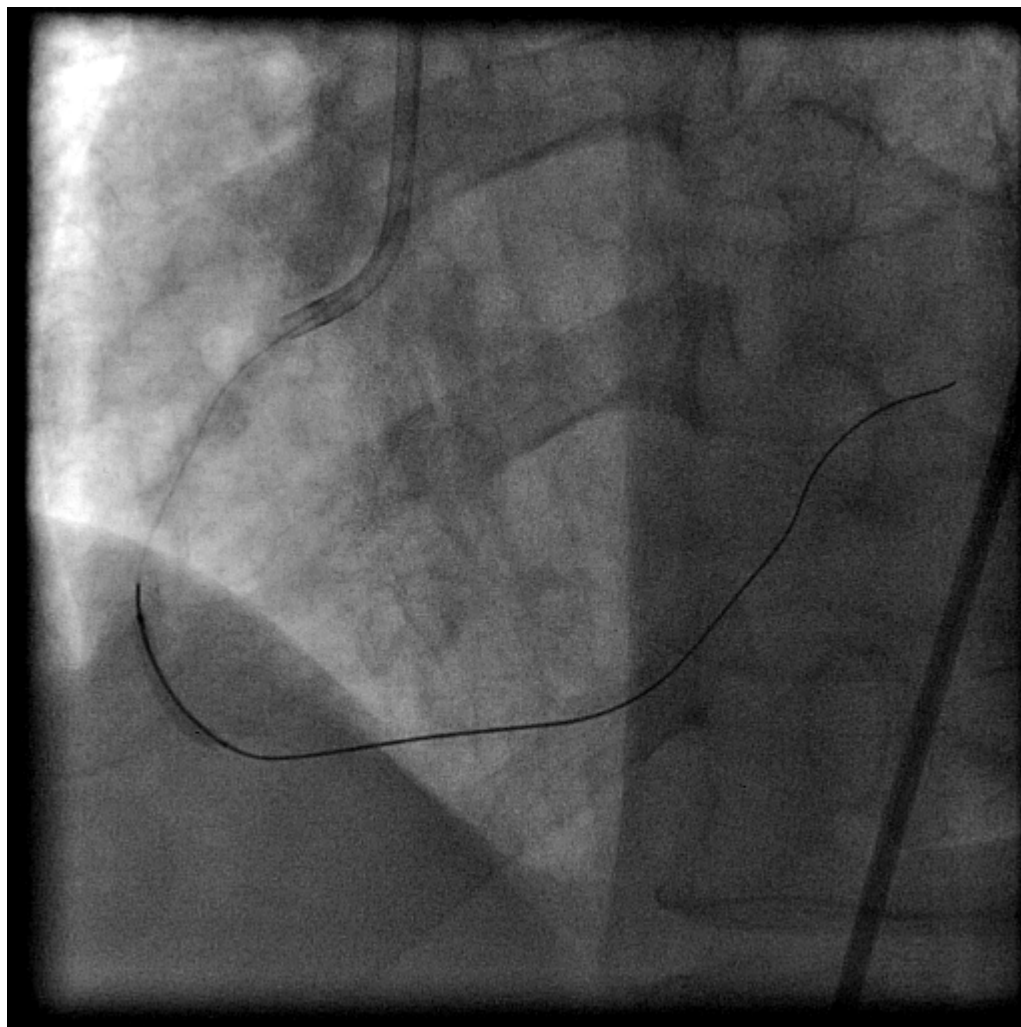
- 1.5x20 mm



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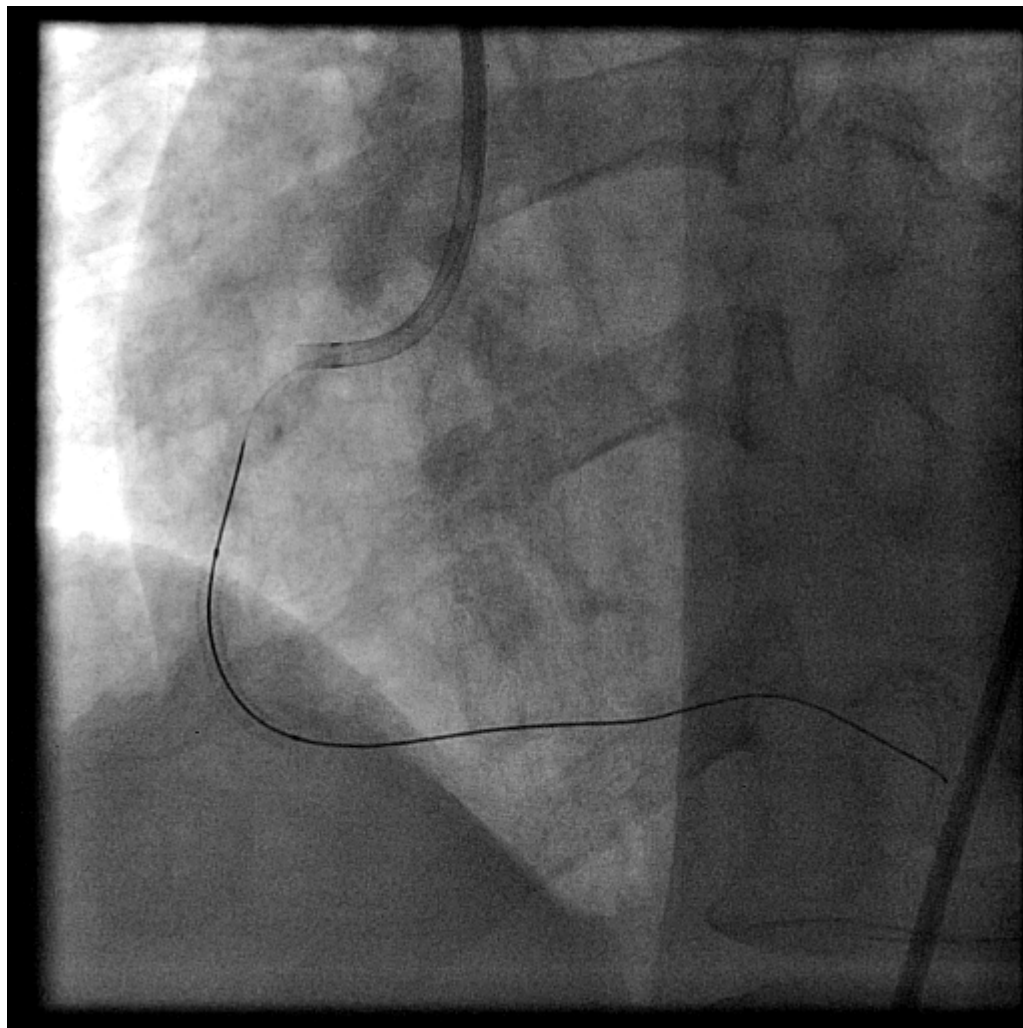
## Predilatation

*Lacrosse Balloon*

*-2.0x20 mm*

*-2.5x20 mm*

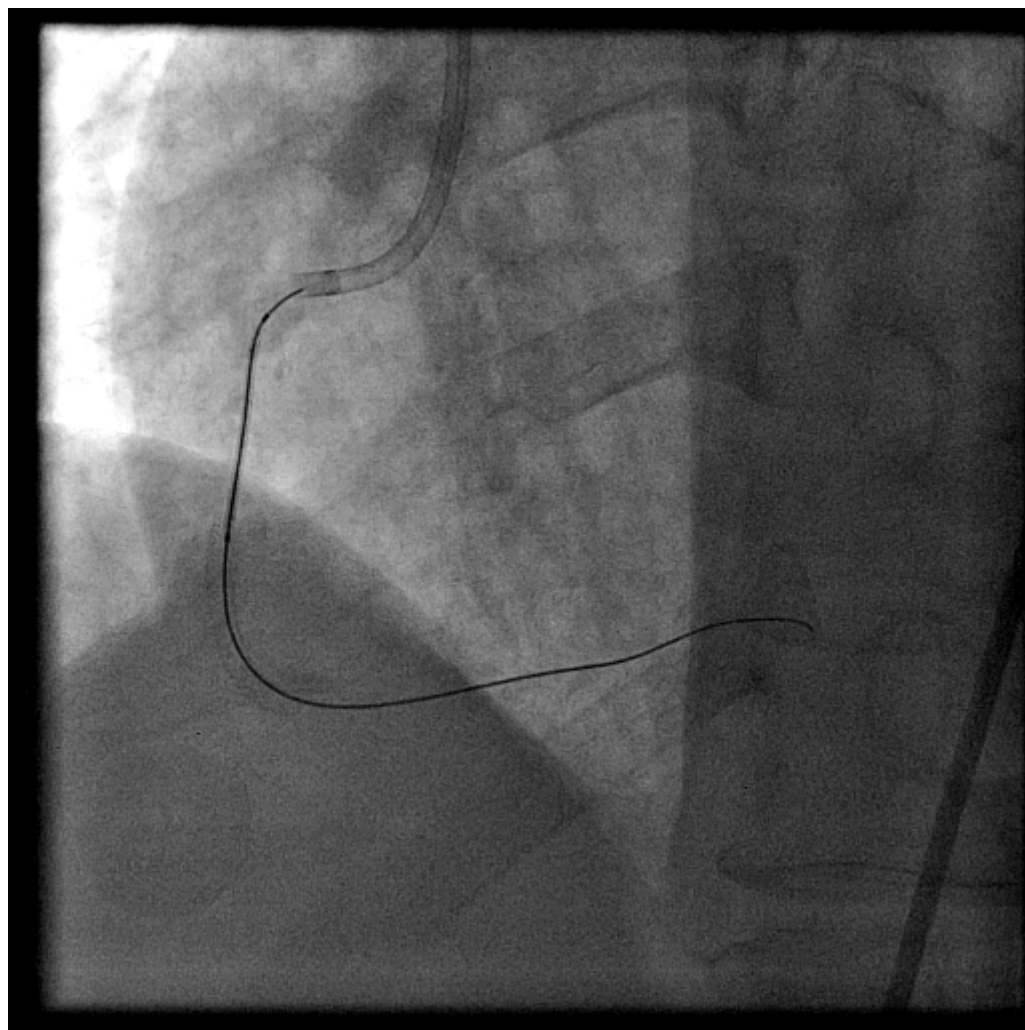
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**Stent (Promus Element)**

*-distal: 2.75\*28mm*

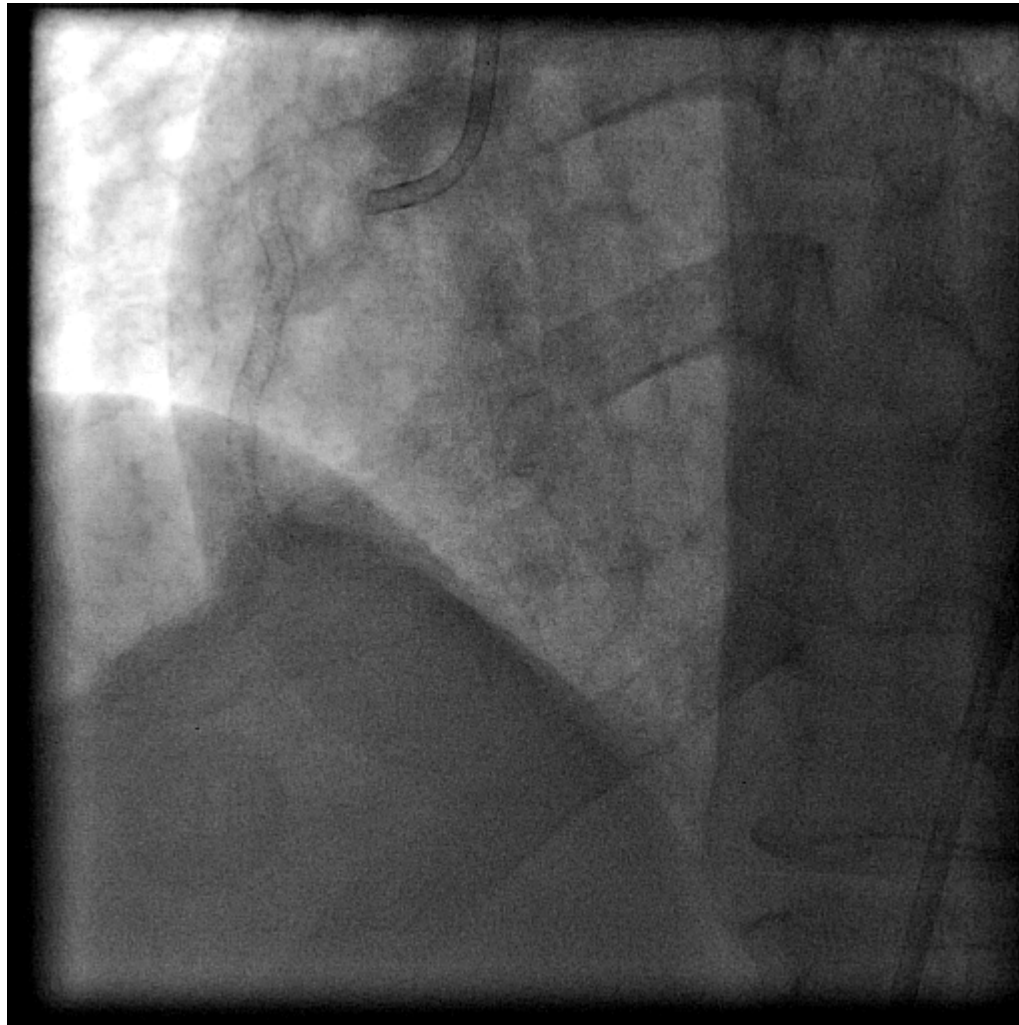
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## Stent (Promus Element)

*-Proximal: 3.0\*28 mm  
with overlapping.*

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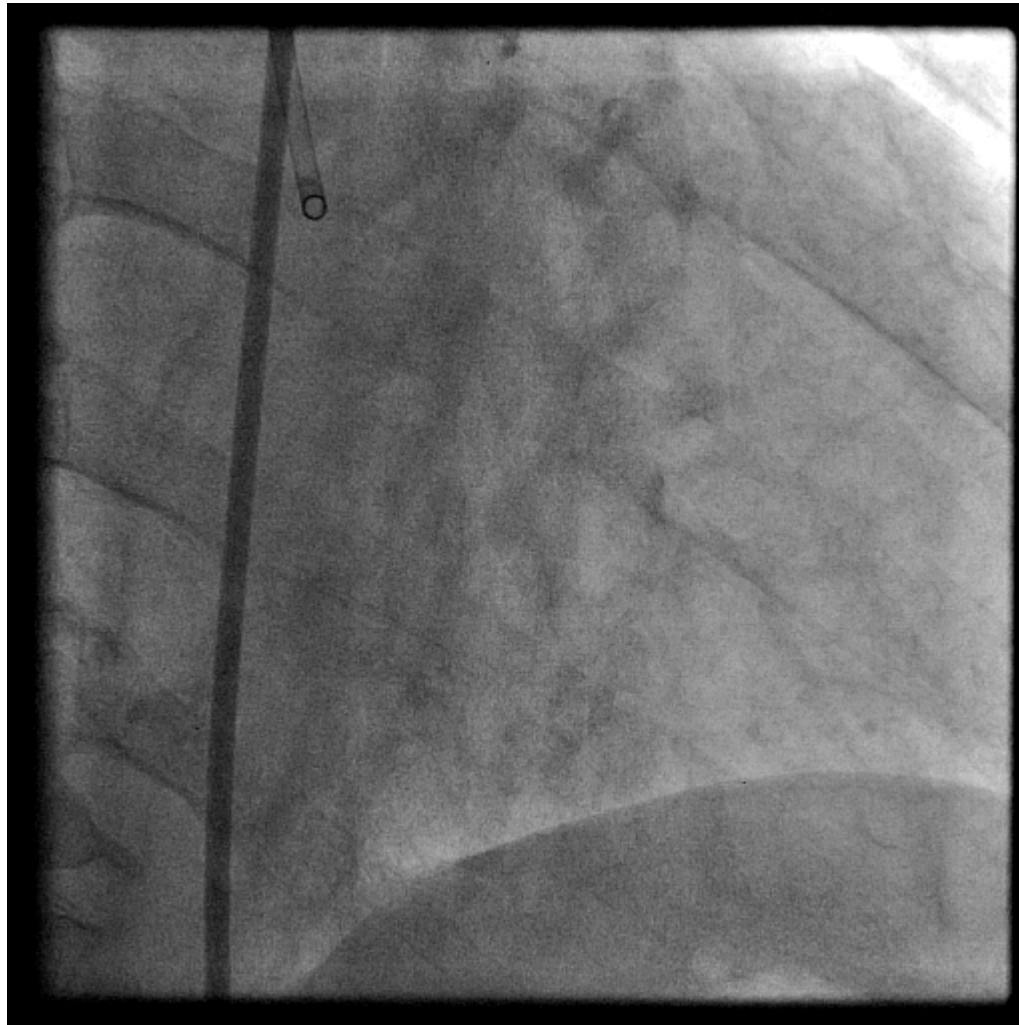


## Final angiography

*showed well-expanded and well-positioned stents.*



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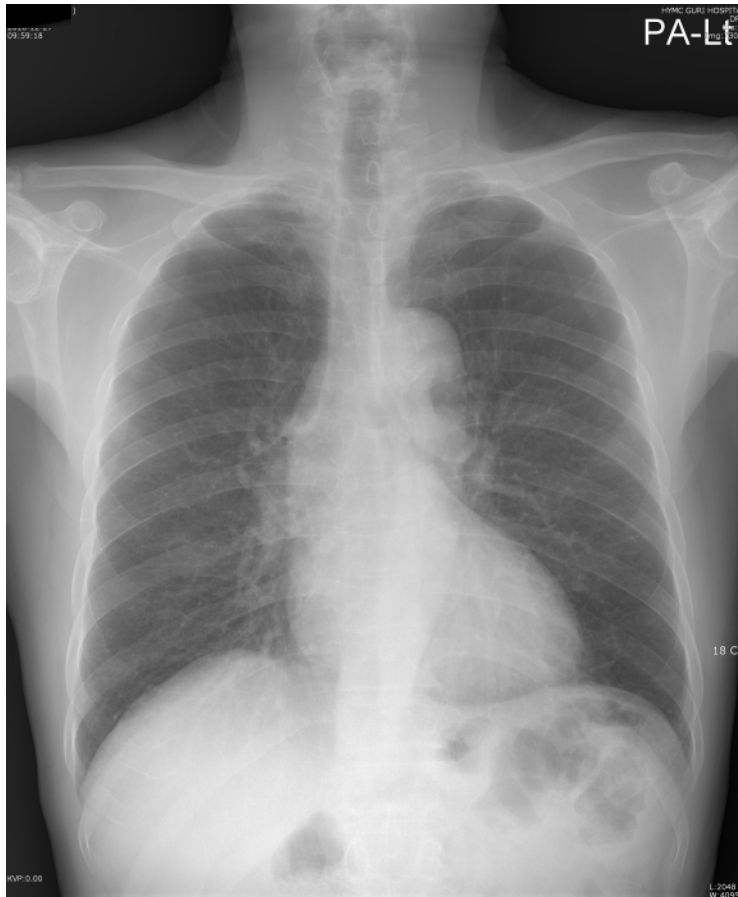


## Final angiography

Total procedure time: 66 min  
Fluoroscopy time: 25 min  
Total amount of dye: 230 ml

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## At 7-month follow up

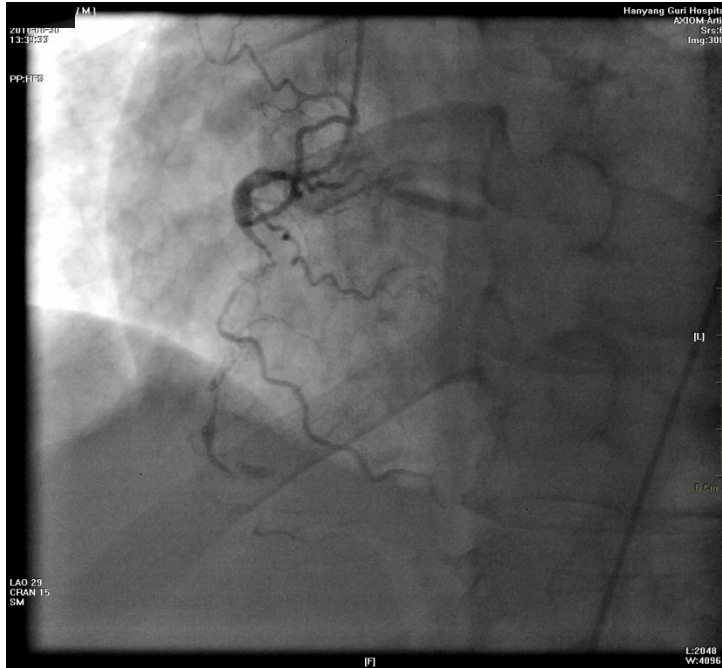
*Patient was in good condition and has not complained dyspnea and chest discomfort.*



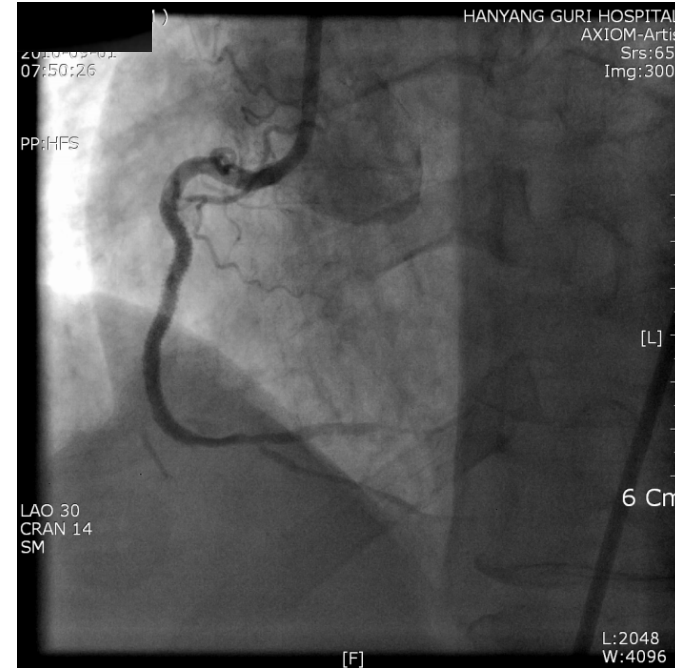
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Before



After

## Operator's Comment

**- Even though CTO lesion was very long and tortuous, Promus Element showed excellent deliverability, visibility and great performance.**

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