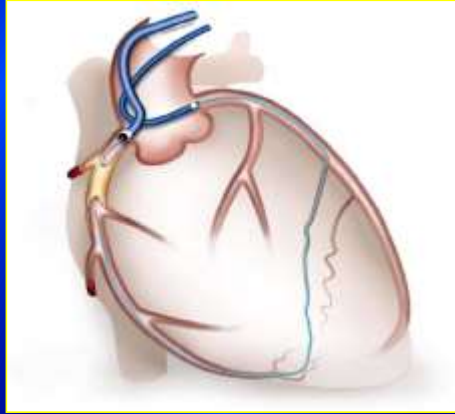


Retrograde Approach is the only way



By

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Kobry El Kobba Military Hospital

1

P. History

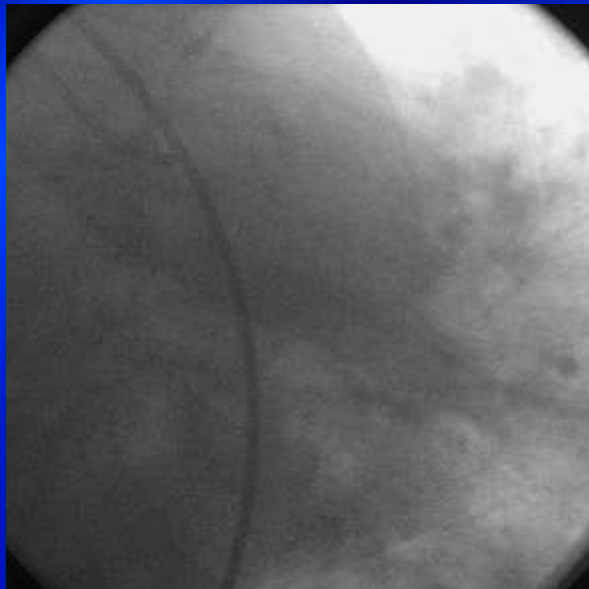
- 49 years old, male patient
- HTN for 5 years
- PH of Inferior MI 4 ago
- The patient was maintained on medical treatment

2

- **The patient was admitted to our CCU with unstable angina despite optimal medical treatment.**
- **ECG: showed Q-waves in Inferior Leads II , III , AVF**
- **ECHO: showed good LV function (EF 60%), Normal LV dimensions, Inferior-lateral Hypokinesia**
- **Cardiac biomarkers were negative**
- **So coronary angiography was done**

3

Caudal view showed significant focal lesion in LCX.



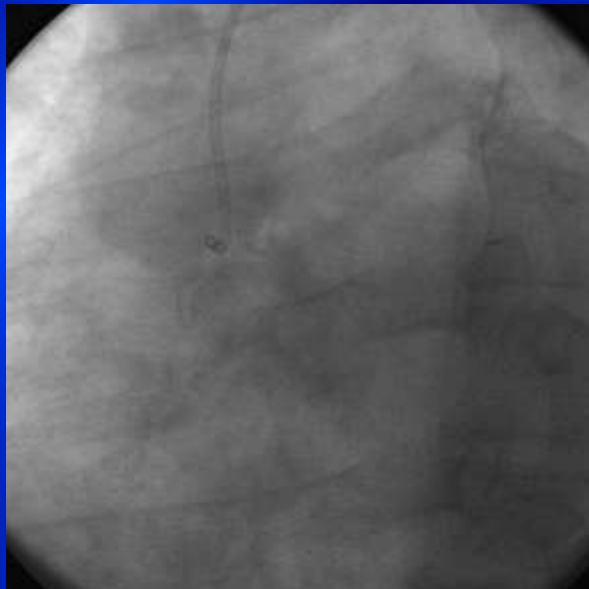
4

LAD showed diffuse atherosclerosis with no significant lesion with retrograde to RCA.



5

RCA was totally occluded after long diseased segment.

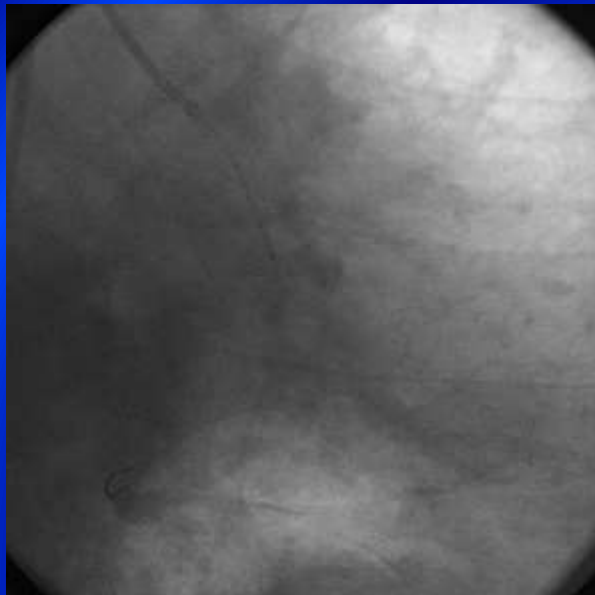


6

PCI to LCX was recommended

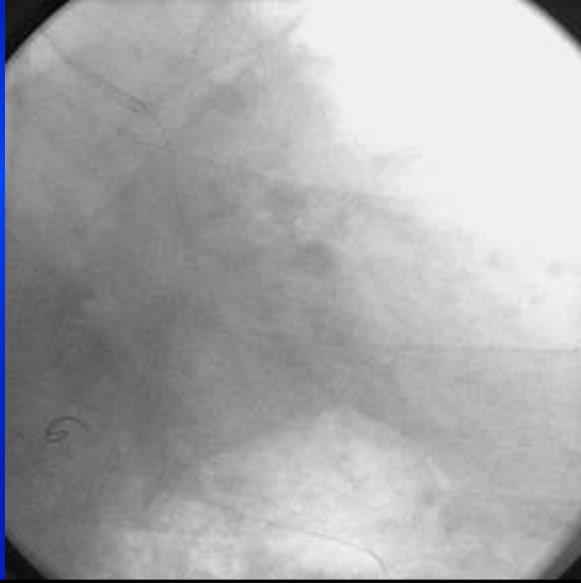
7

LM was engaged with 6F XB GC and floppy wire was introduced to the distal LCX. BMS 2.75 x 15 was deployed across the lesion.



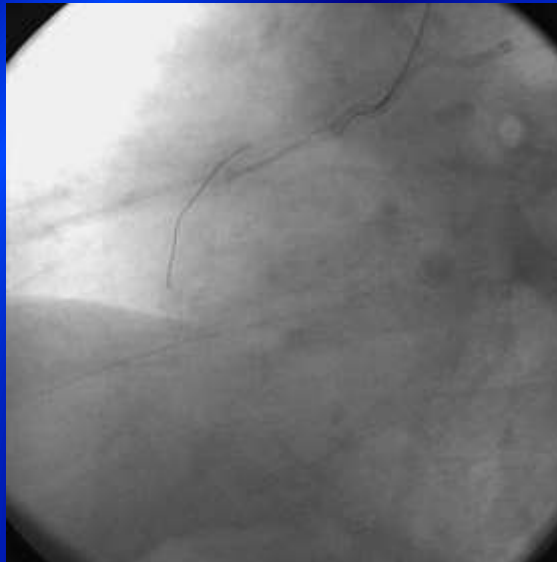
8

CA revealed successful result



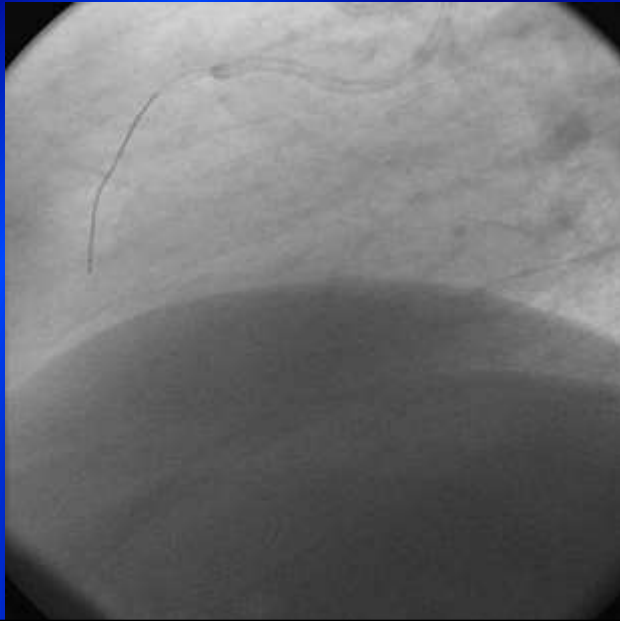
9

then the patient was kept on medical ttt & SPECT was decided after one month which revealed reversible ischemia in RCA territory. was . So PCI to RCA was decided..



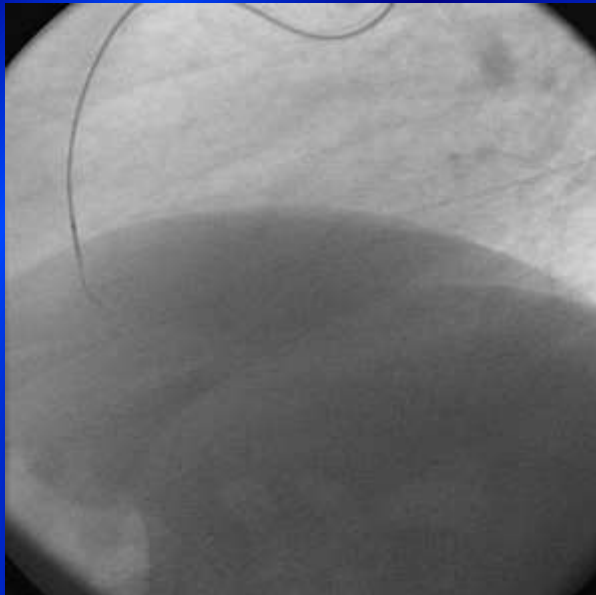
10

Bilateral injection showed proper direction of the wire



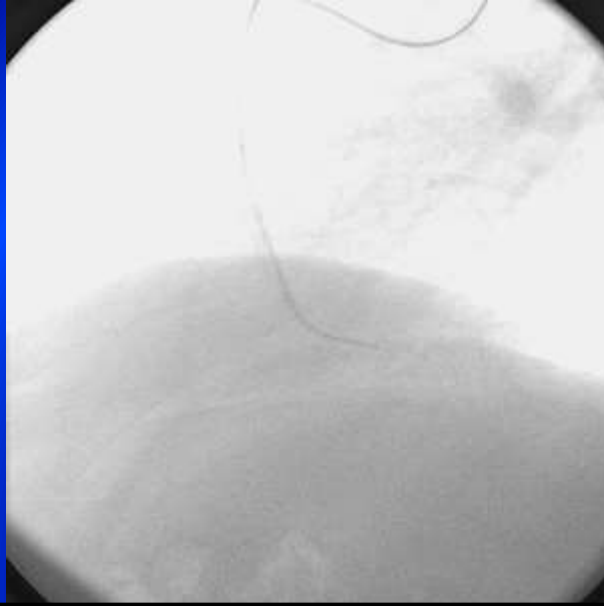
11

The fine cross microcatheter was replaced with crosier and the floppy wire was replaced with fielder XT wire that succeeded to penetrate the proximal cap of the CTO segment.



12

A lot of trials were done using different wires to penetrate to the lumen of the distal RCA but all trials failed.

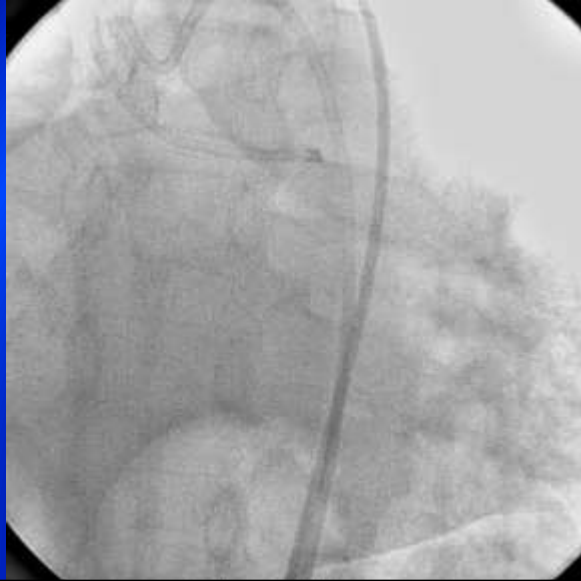


13

- So, the patient was kept on medical ttt and CA was decided after one month that revealed unhealed dissection in the RCA that make retrial of PCI through ante-grade approach difficult.
- So we believed that retrograde approach would be the only way to open this vessel.

14

LM was engaged with shortened XB 6F GC and RCA was engaged with AL1 GC



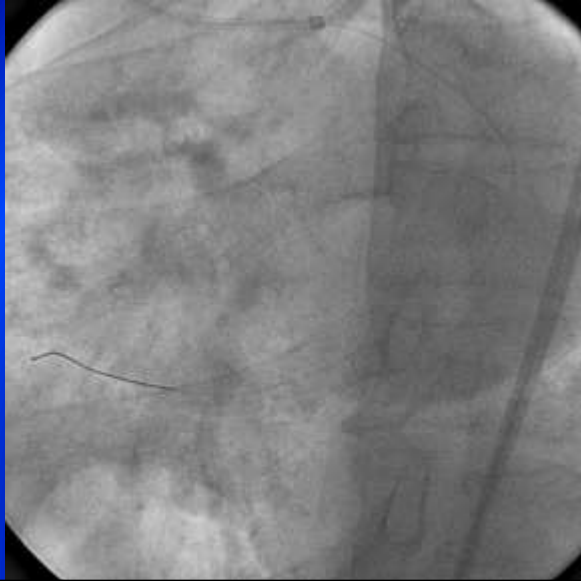
15

Dye injection through the lumen of fine cross 150 cm micro-catheter to opacify the continuous channel to distal RCA.



16

Sionblue wire was introduced through the retrograde channel to distal cap of CTO segment in RCA



17

Fine cross failed to pass to the distal RCA



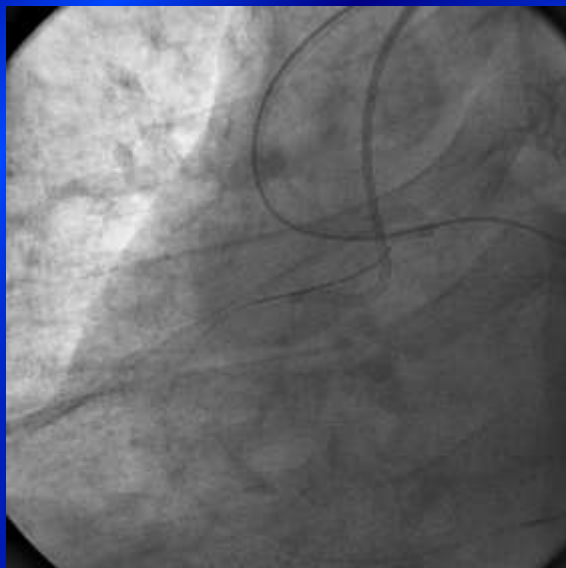
18

Fine cross was replaced with crosier that failed also to cross to the distal RCA.



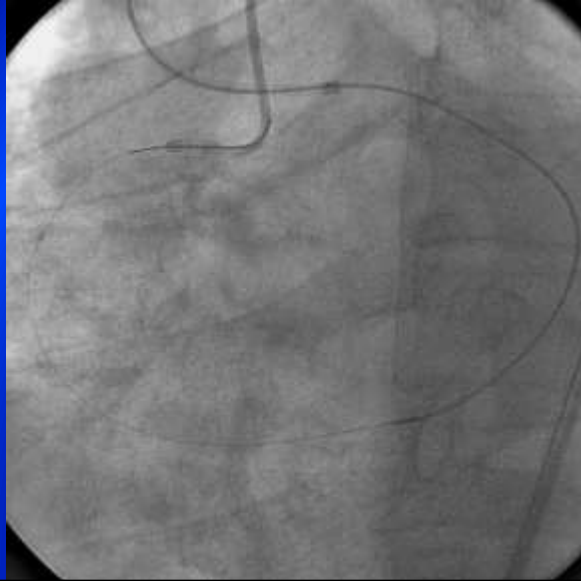
19

So we tried to introduce the wire to the lumen of the GC engaged in the RCA



20

After many trials the wire succeeded to enter the lumen of GC



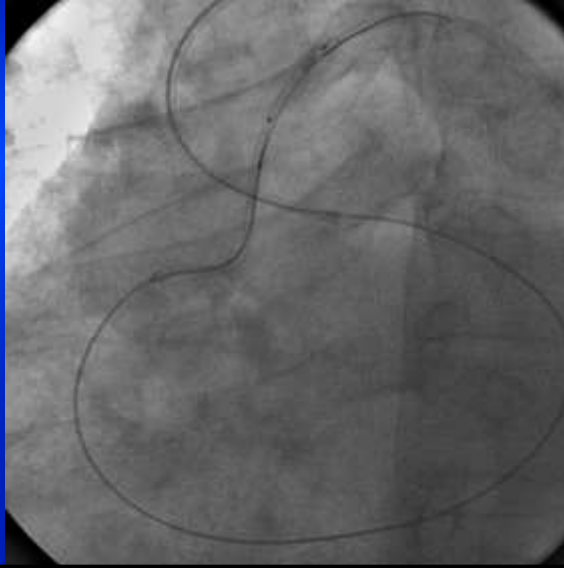
21

2.5 mm balloon was introduced in the lumen of AL GC to trap the retrograde wire.



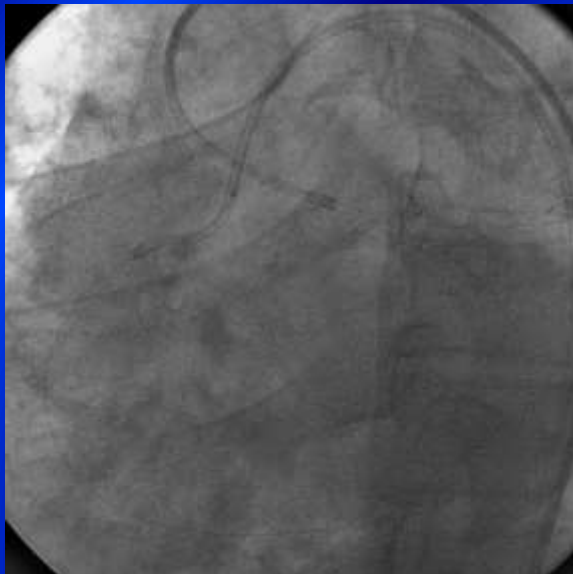
22

After trapping of the wire, crosier succeeded to cross retrogradely to the lumen of the AL GC



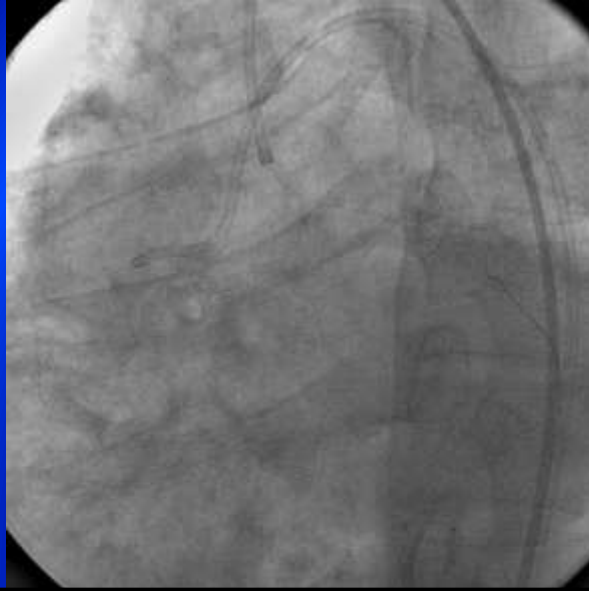
23

After replacing the retrograde wire with 300 wire that passed retrogradely to the outside to make a complete circle around the heart, over wire balloon was introduced antegradely to the distal RCA.



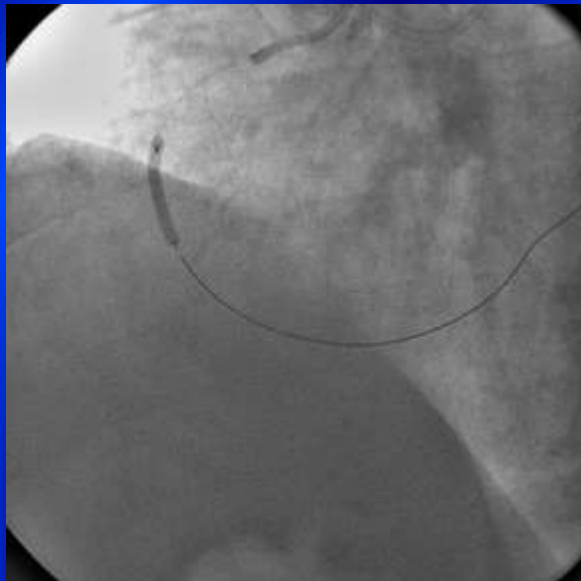
24

Then the retrograde wire was withdrawn leaving the over wire balloon inside the RCA.



25

Fielder XT wire was introduced antegradely followed by PTCA



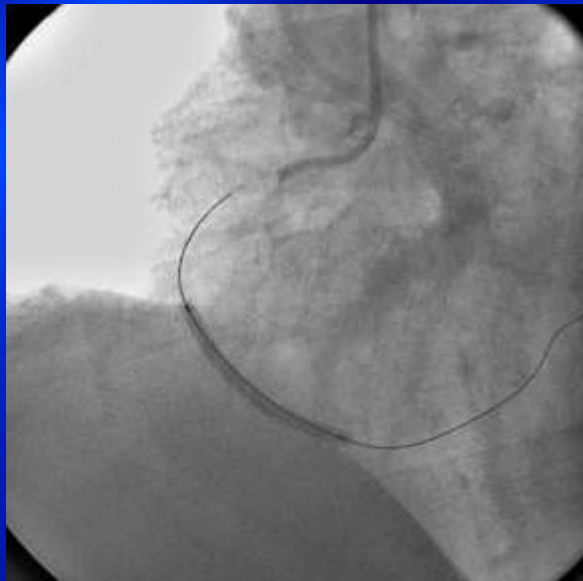
26

CA after PTCA



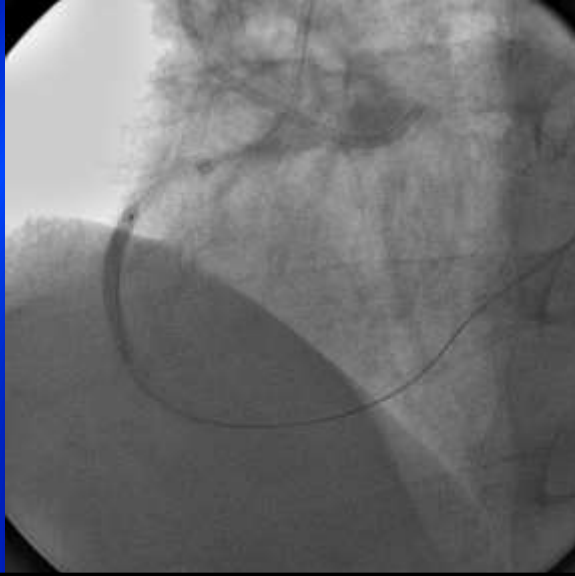
27

Stent Deployment



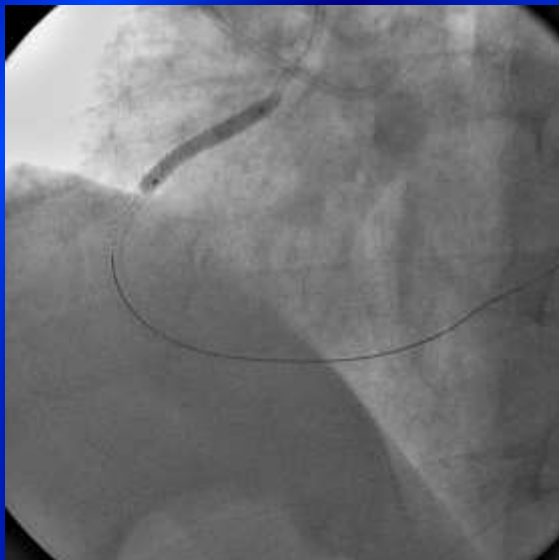
28

Stent Deployment



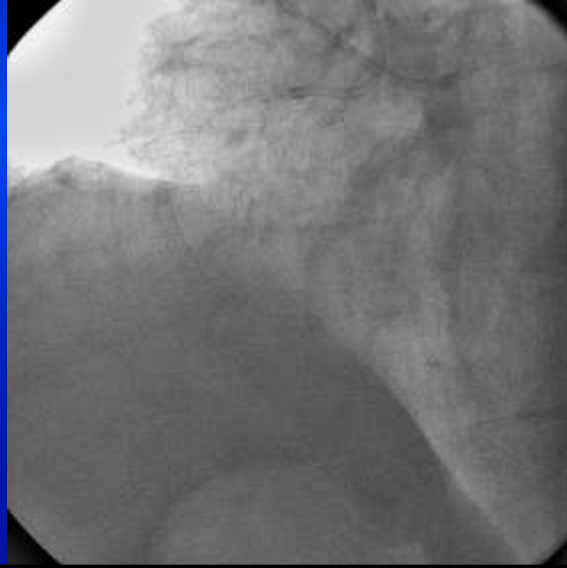
29

Stent Deployment



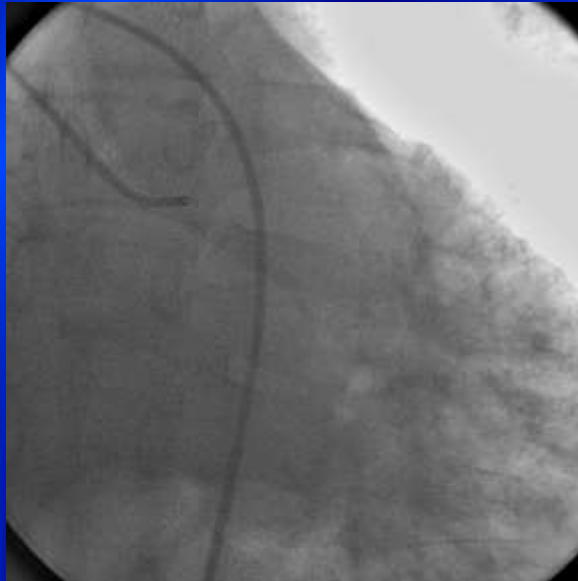
30

Final CA



31

CA on left system to check the feeding artery



32

TAKE HOME MESSAGE

33

- ✓ Improvement in the techniques and devices has resulted in increasing success rate of CTO Intervention.
- ✓ A successful CTO PCI is associated with total revascularization which improve long-term outcome.
- ✓ Techniques of retrograde recanalization adds to the success rate of the centre in CTO Intervention.
- ✓ Every advanced CTO PCI center should dedicate a special team for the retrograde approach.

34

