TCTAP2018 29/APR/2018
Lunchtime Activities
Benefit of New Generation BP-DES

CTO Techniques and Strategy for Complex Lesions

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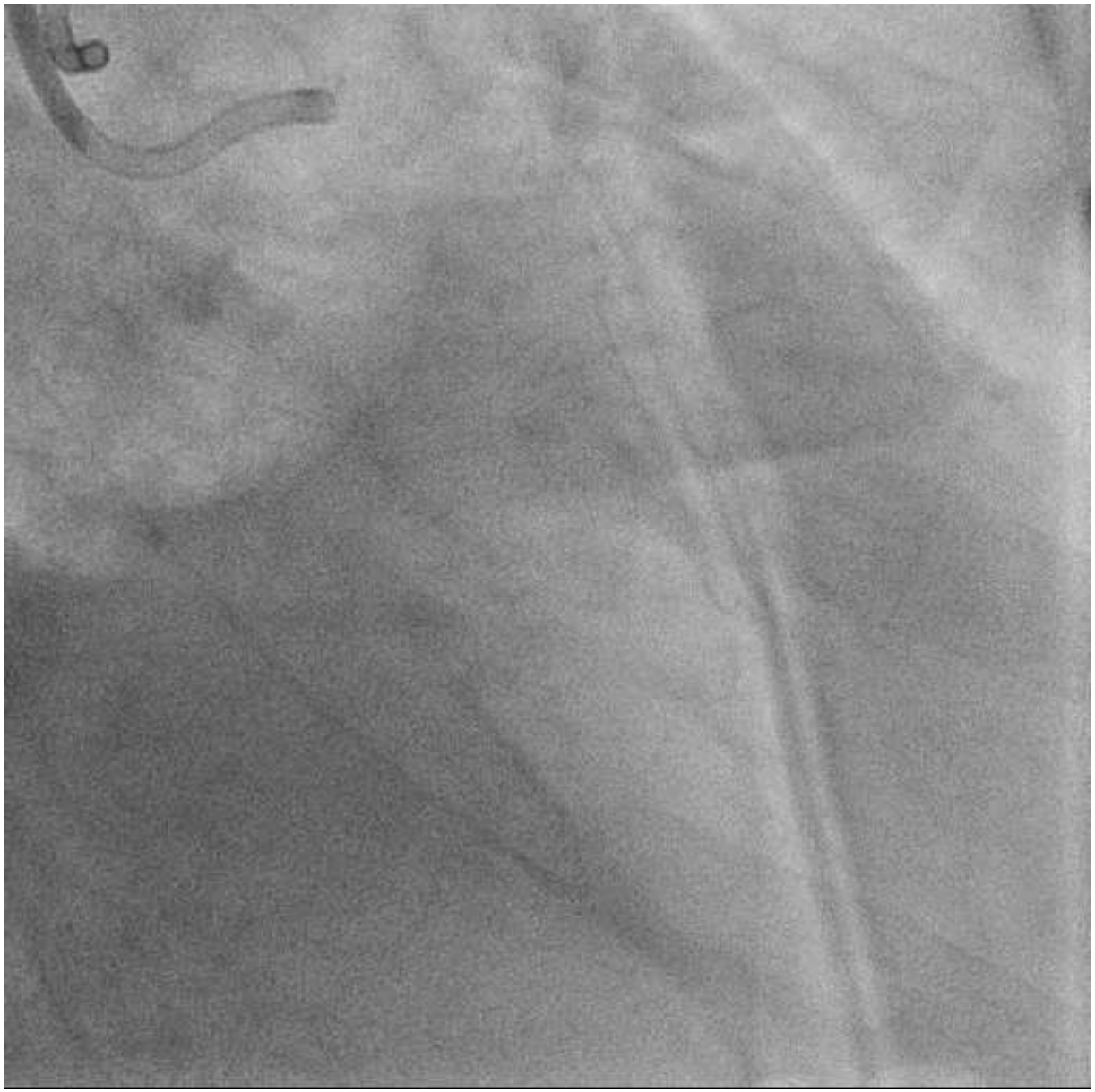
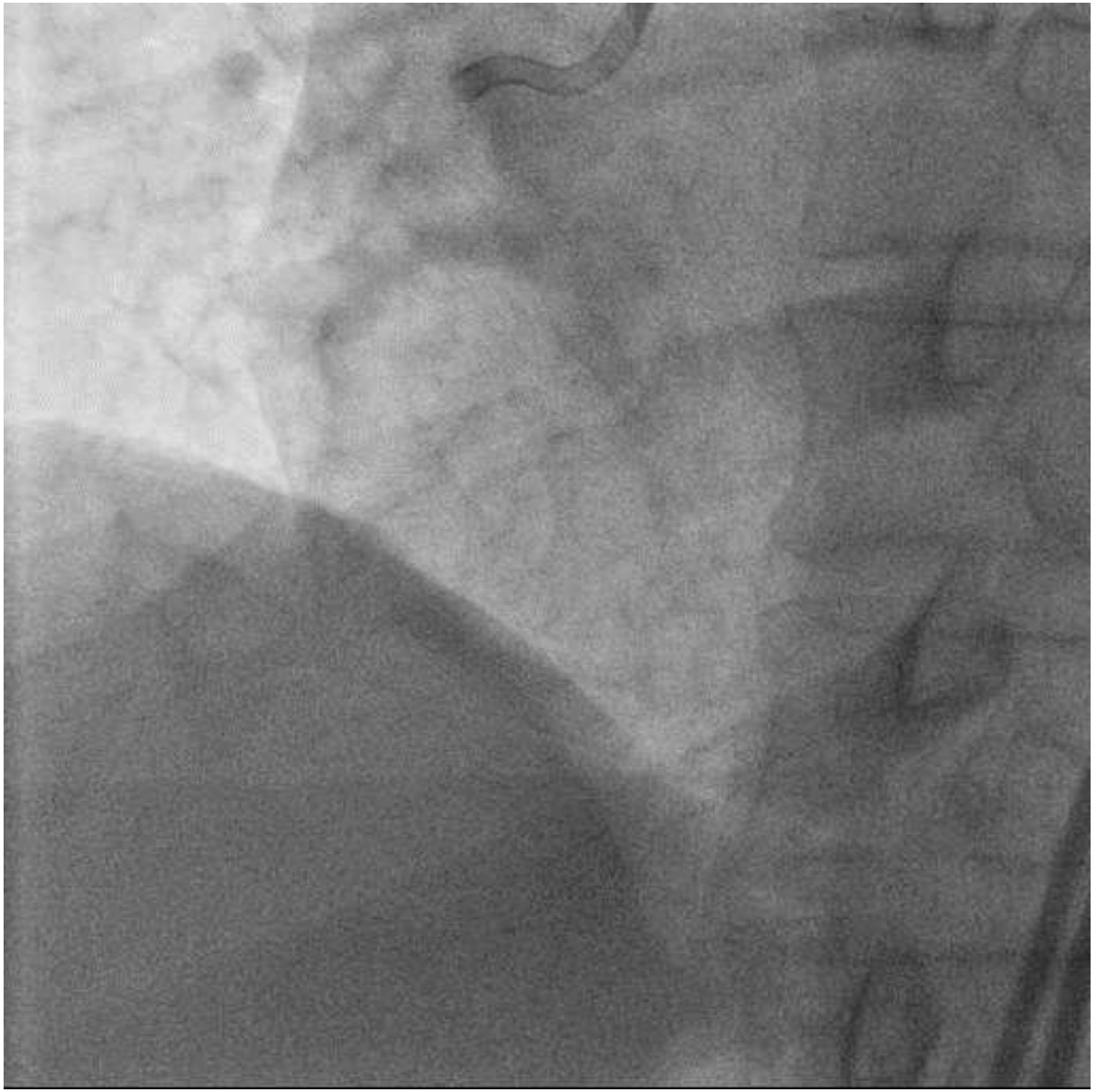
Case1 RCA CTO

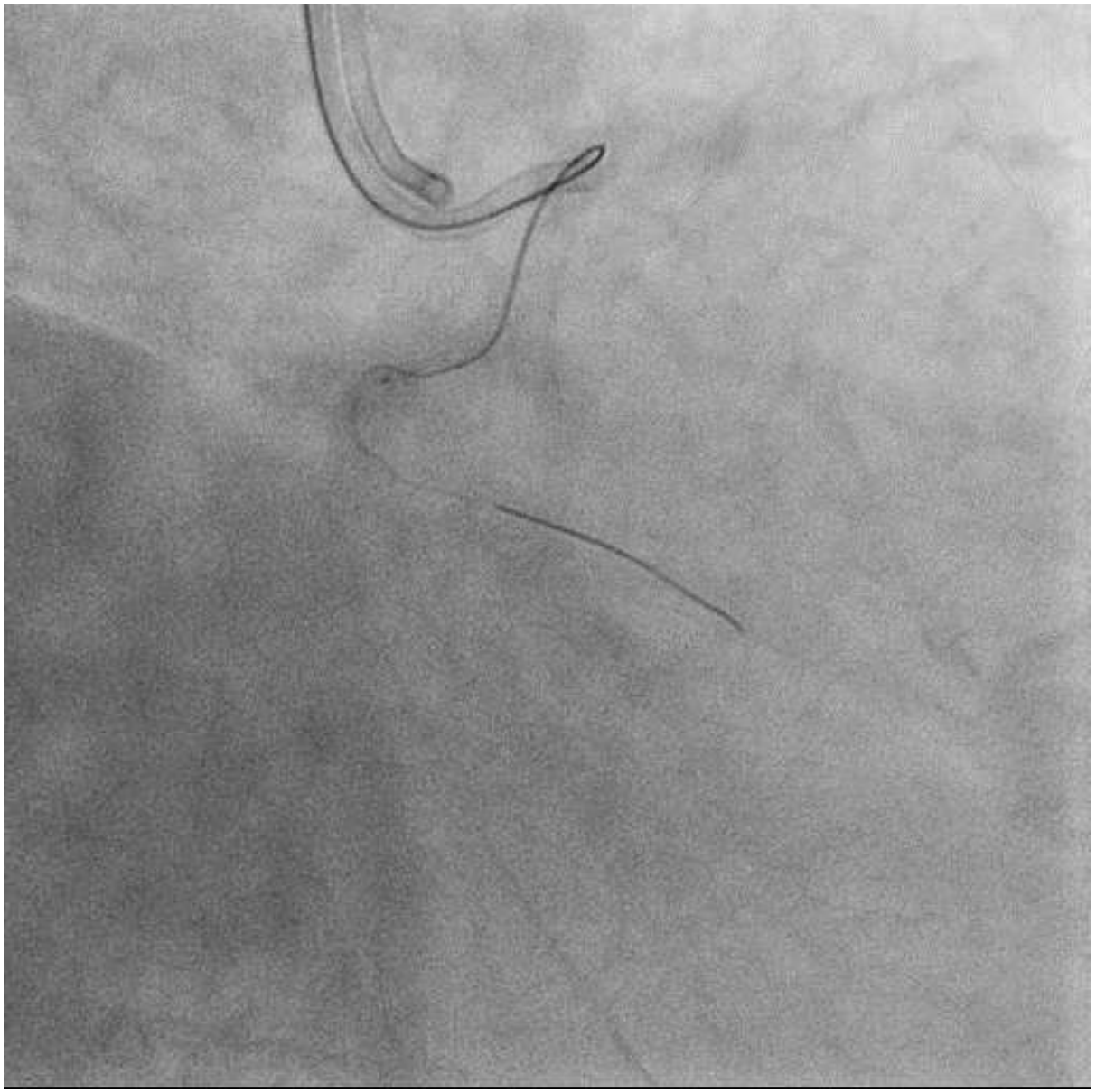
67 y/o, Male

SMI, CHF

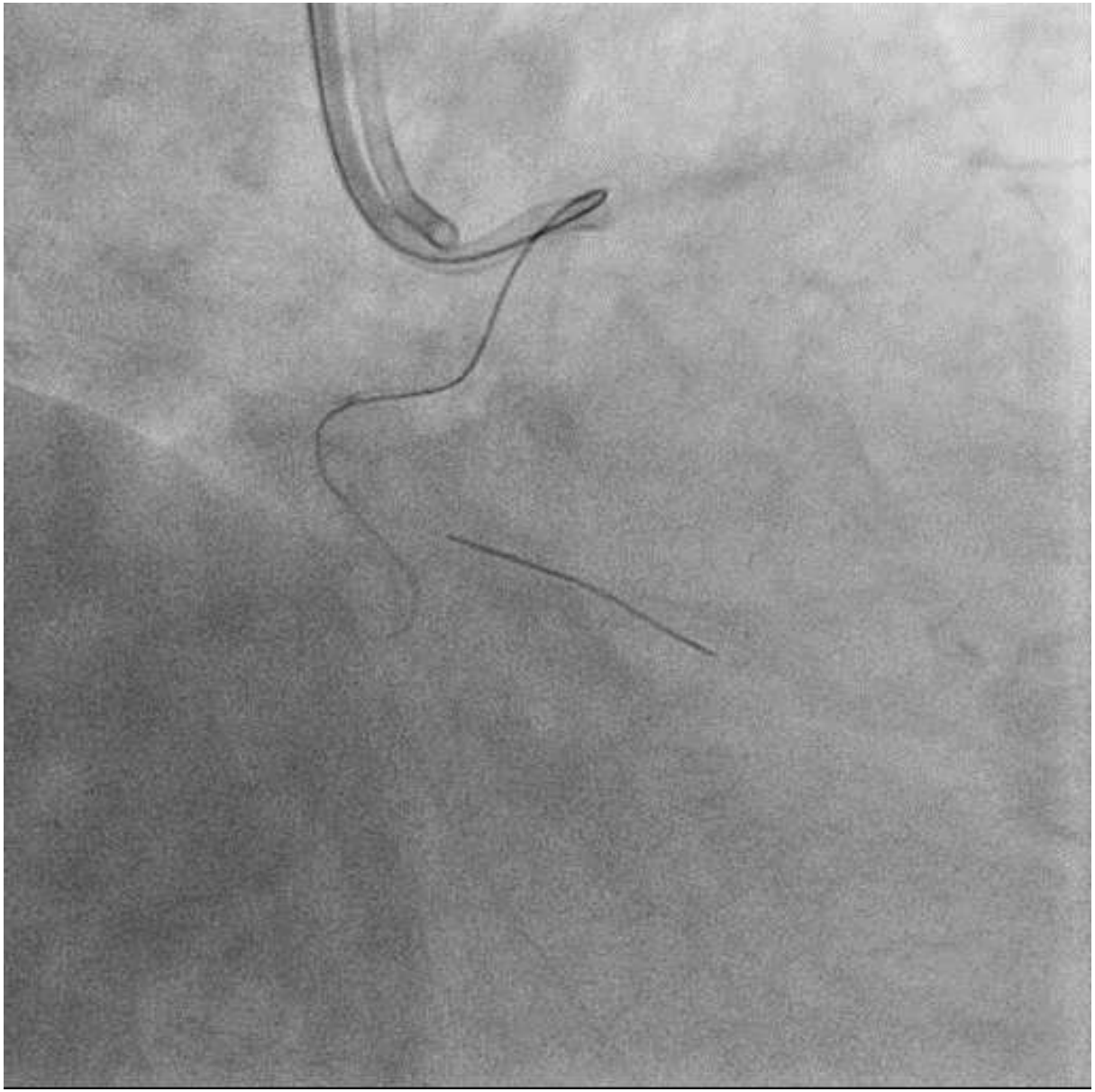


Target lesion was RCA CTO. RCA was tortuous and distal lumen was very small

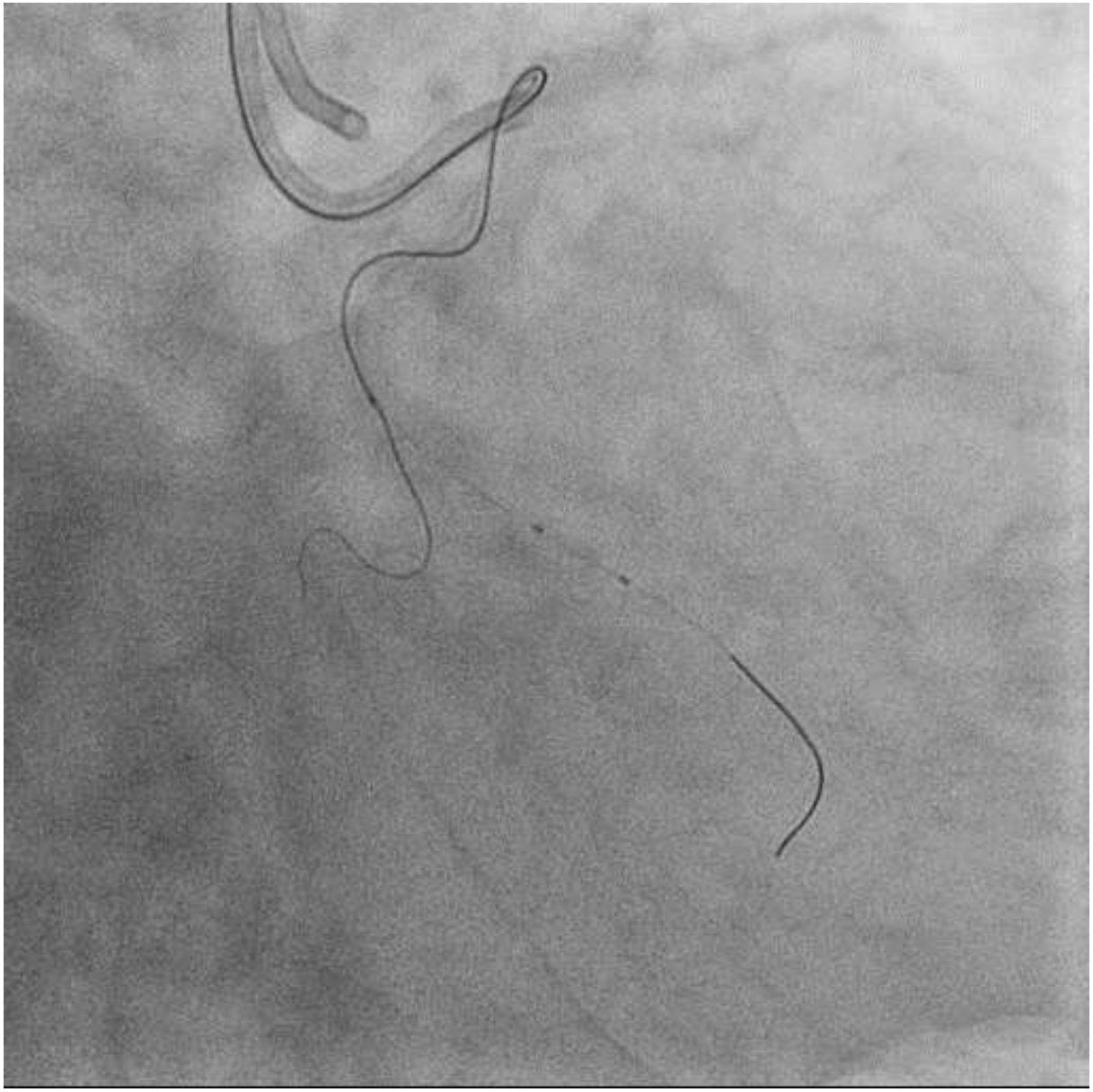




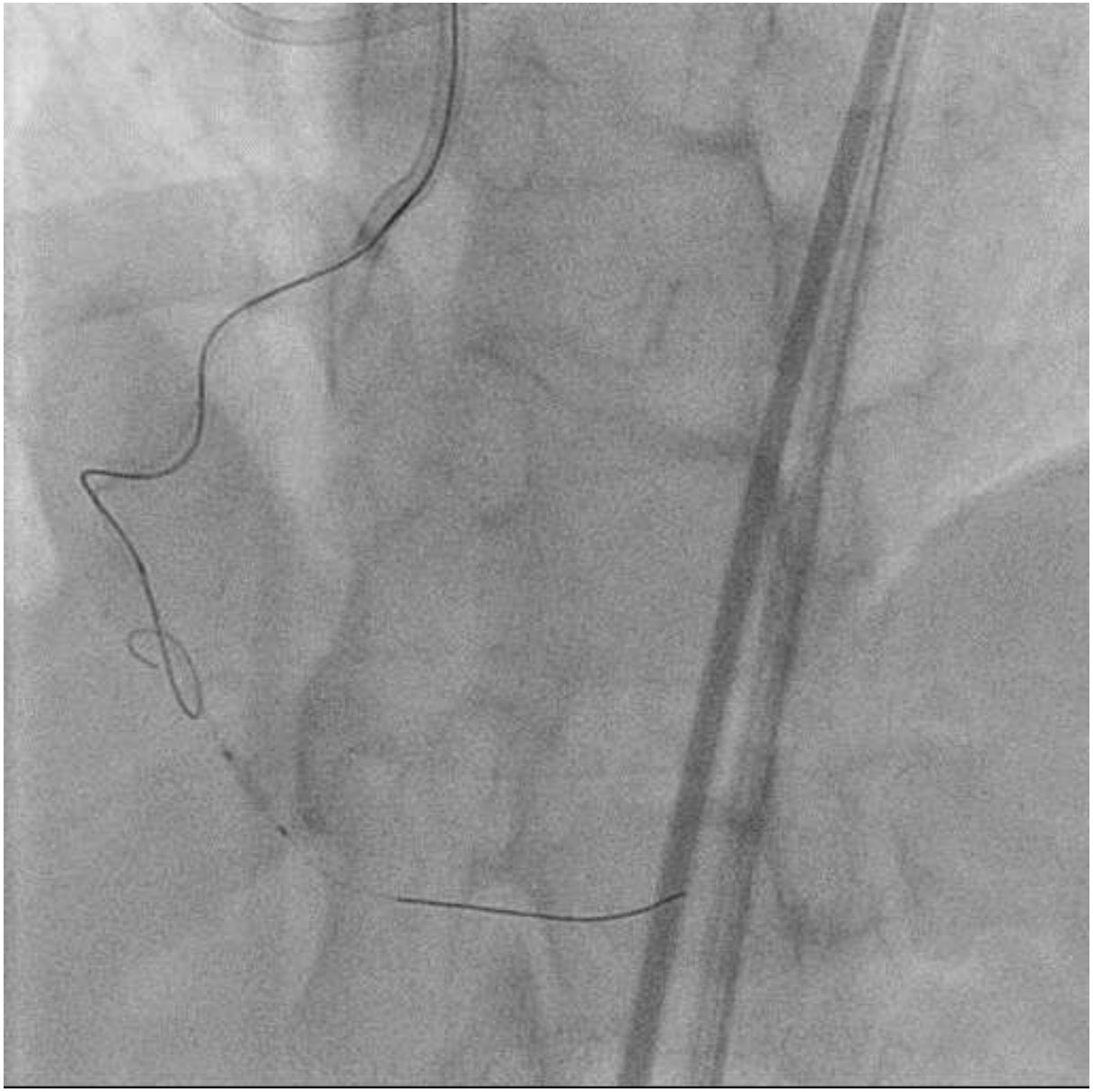
To stabilize antegrade system, DLC was used. 1st GW was inserted into RV branch, and DLC was advanced to proximal site of CTO and wiring for CTO was started.



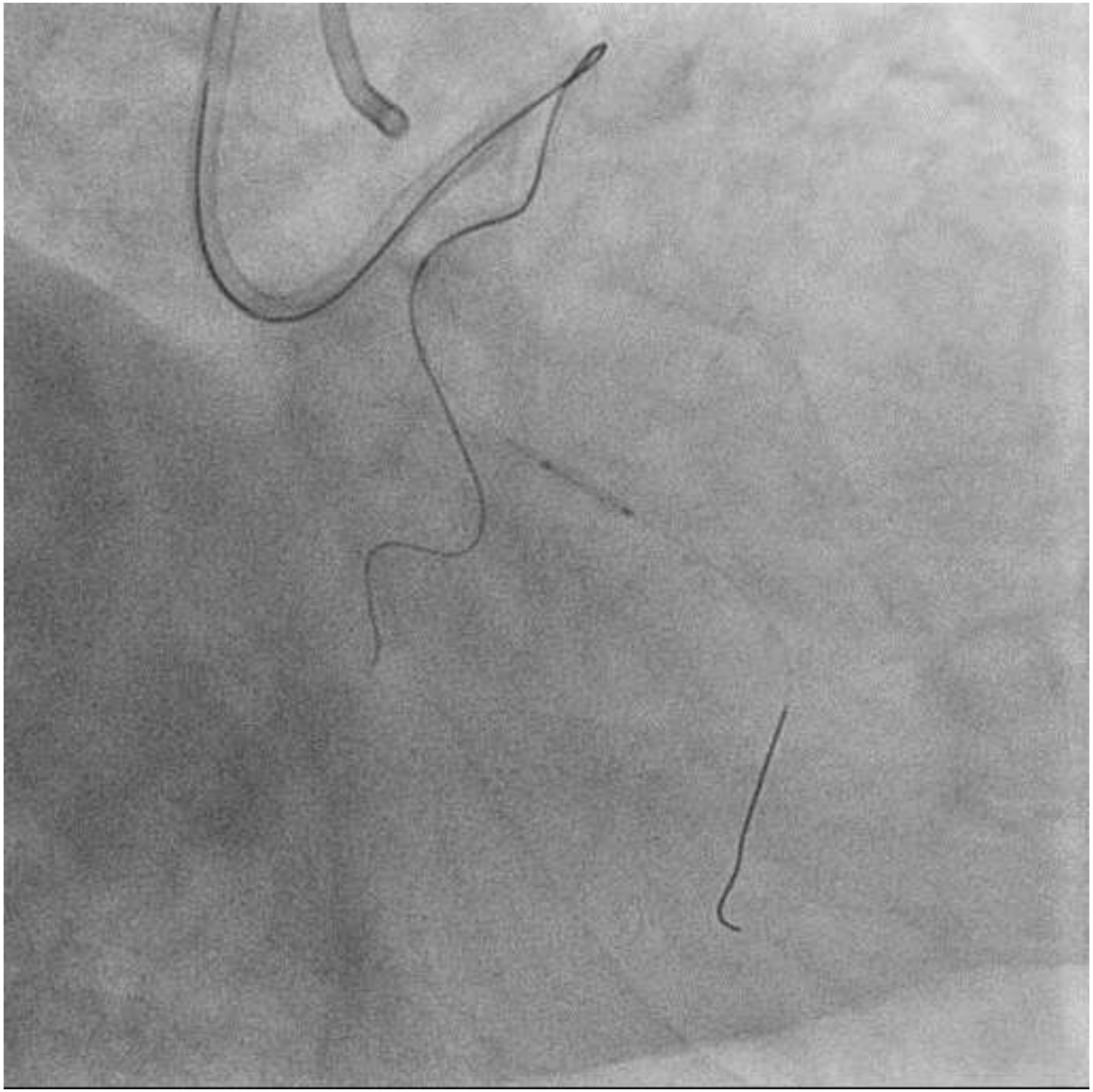
XT-R was used as 1st GW. It was not easy to advance XT-R into CTO but XT-R could be advanced gradually.



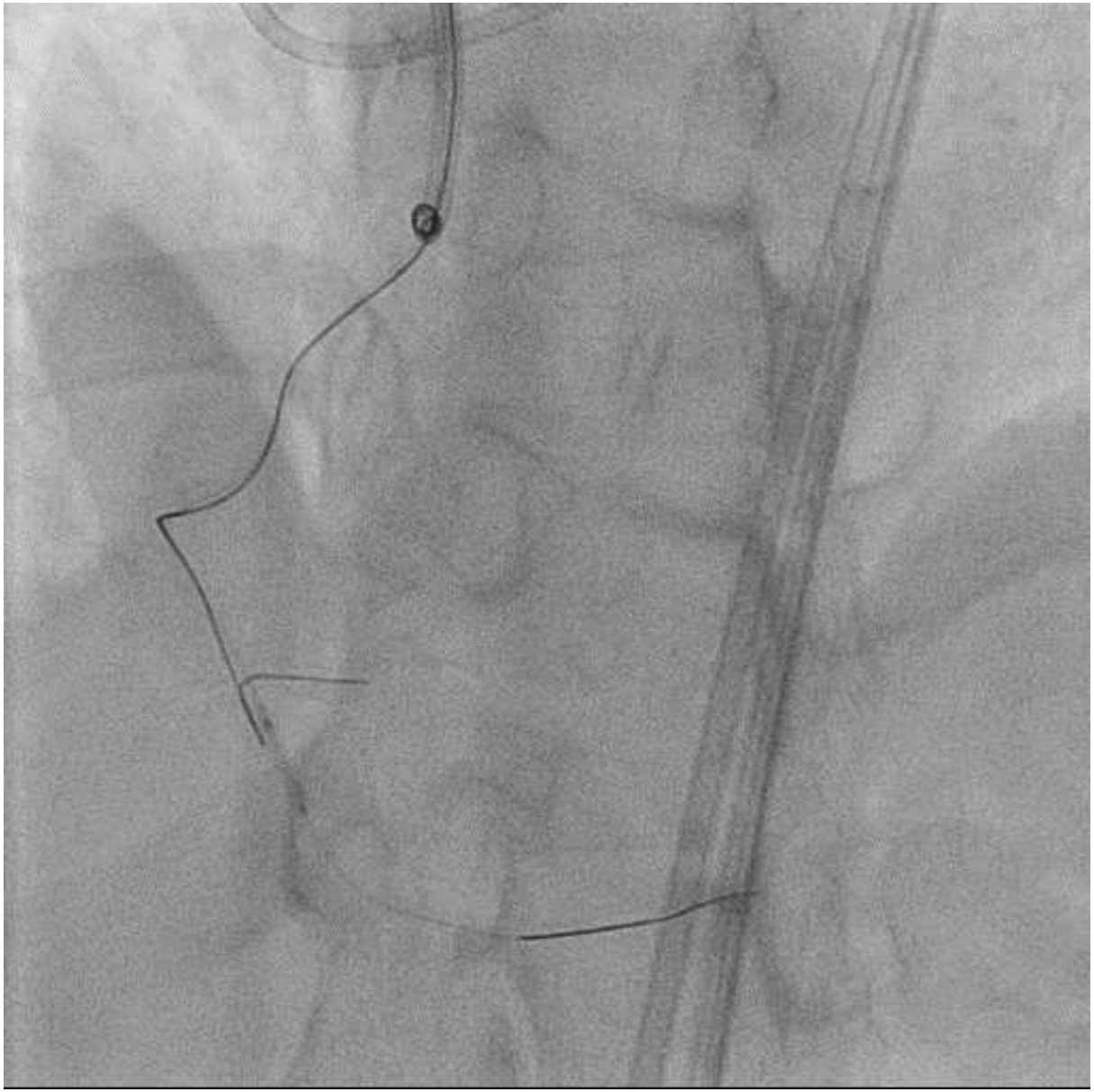
To get much better back up support, DLC was exchanged into Finecross and anchor balloon technique was used. However XT-R could not be advanced to good route.



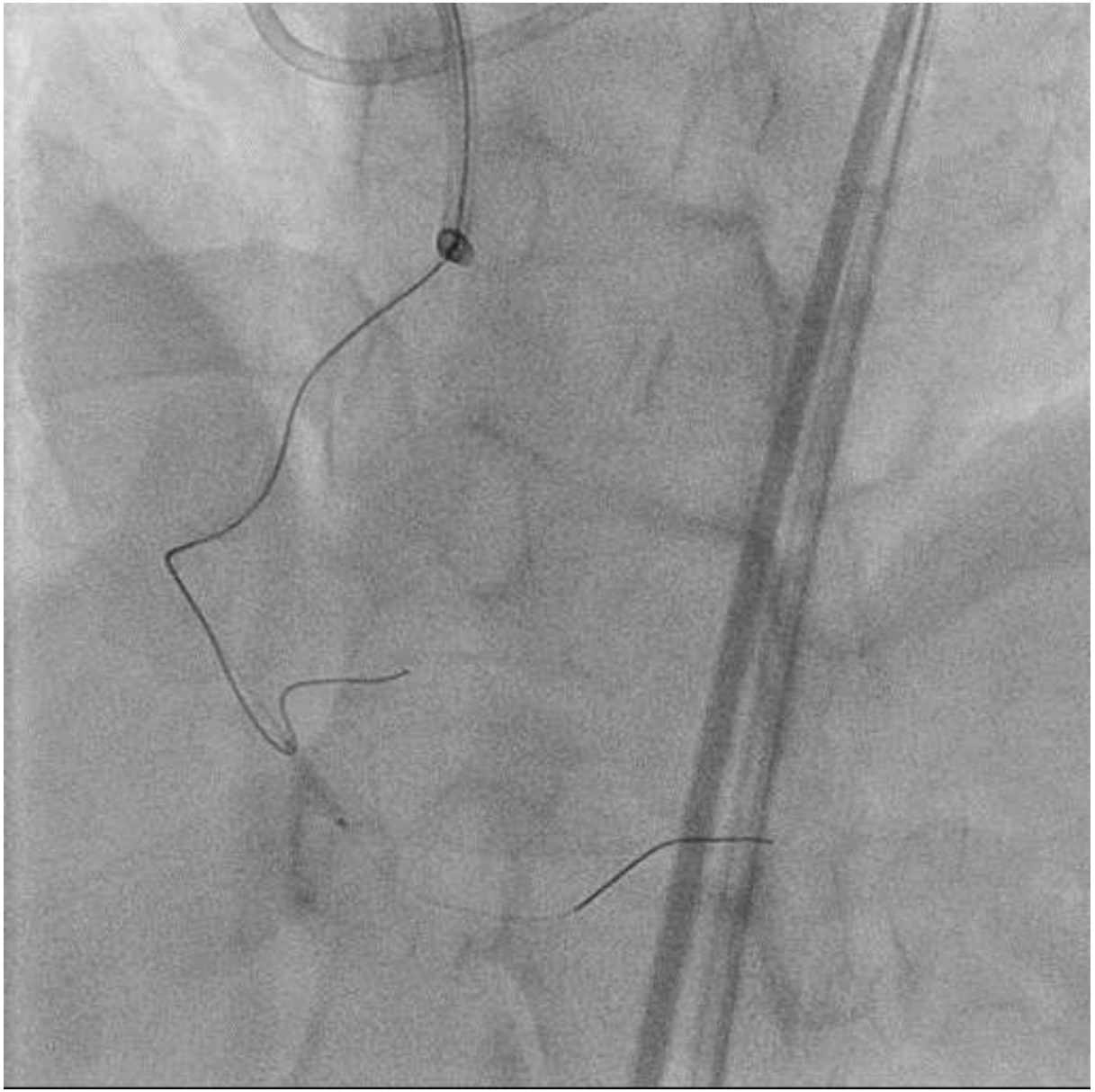
In other view, GW route was not good.



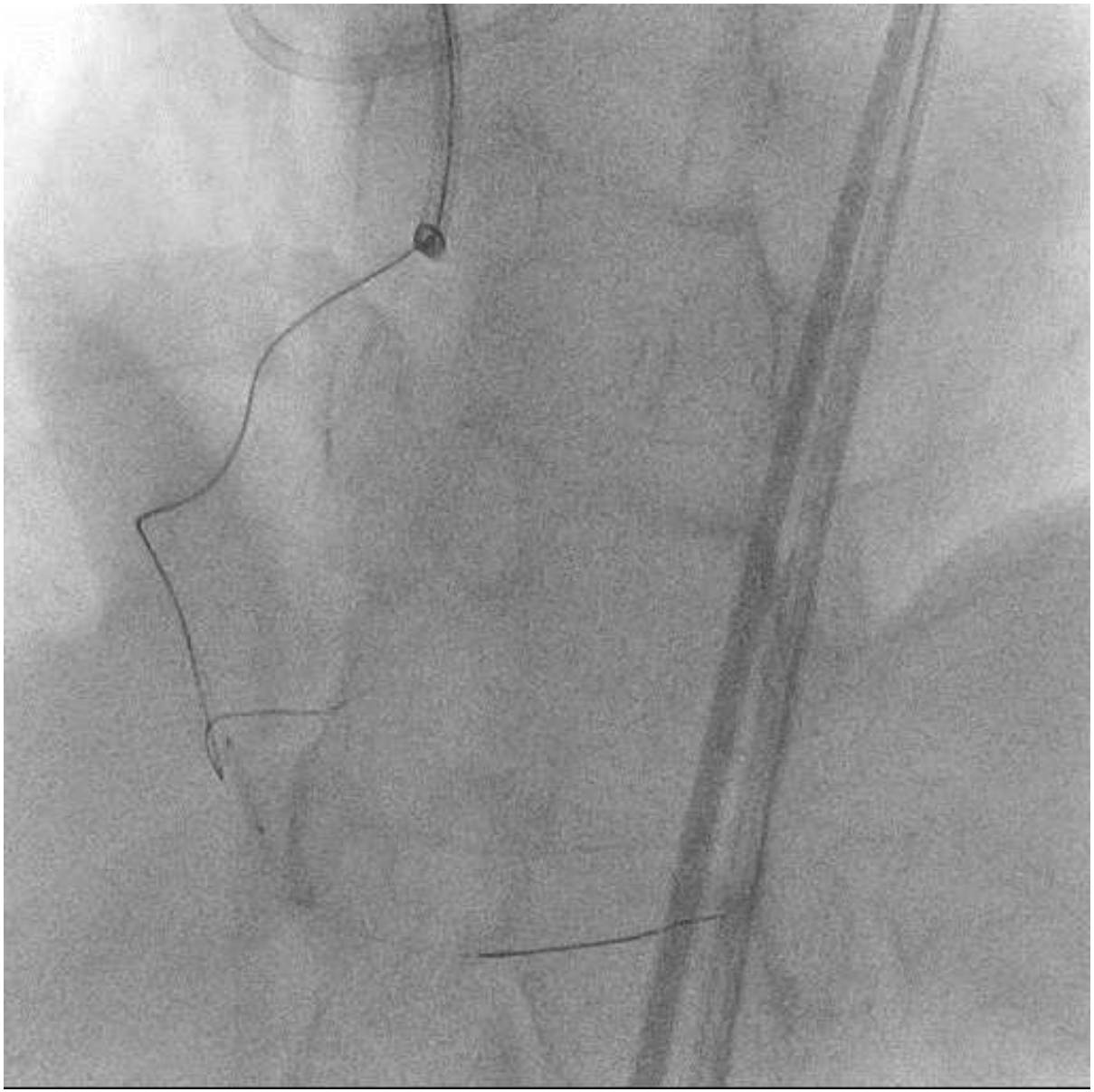
GW was exchanged from XT-R into XT-A. XT-A could be advanced into better route.



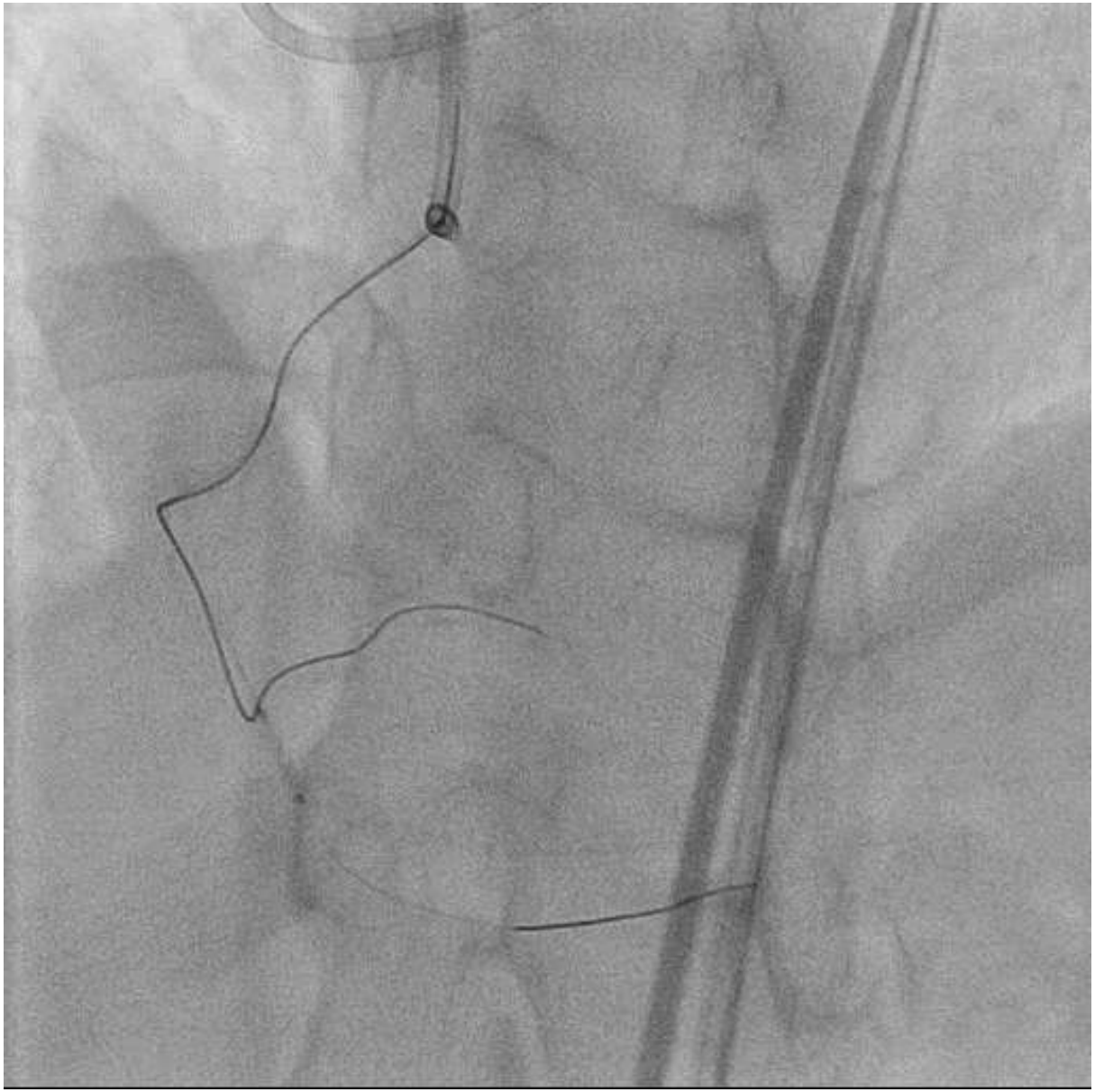
In other view, GW route looked good.



Distal RCA around GW tip had a bending.

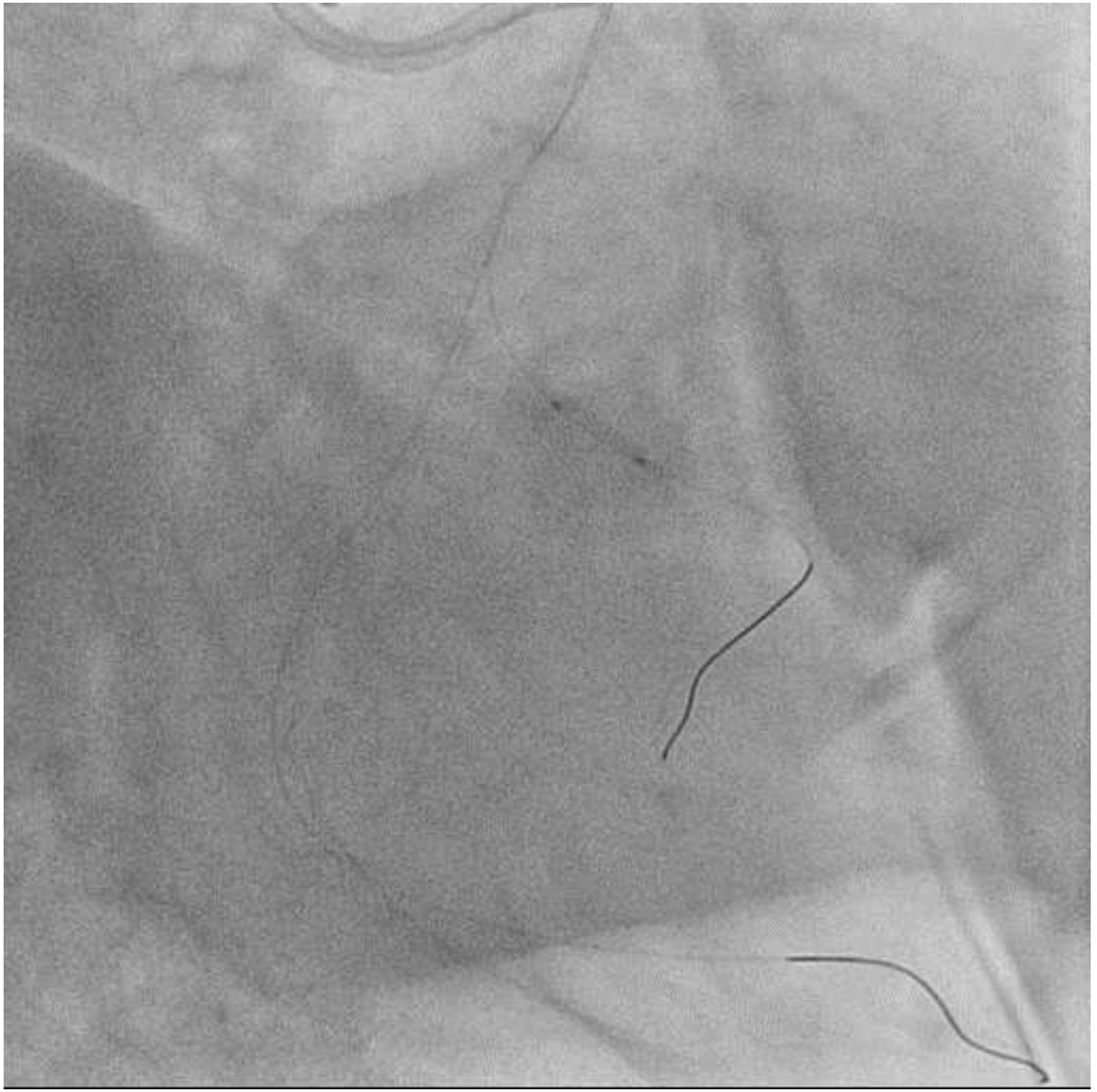


XT-A could pass this part.

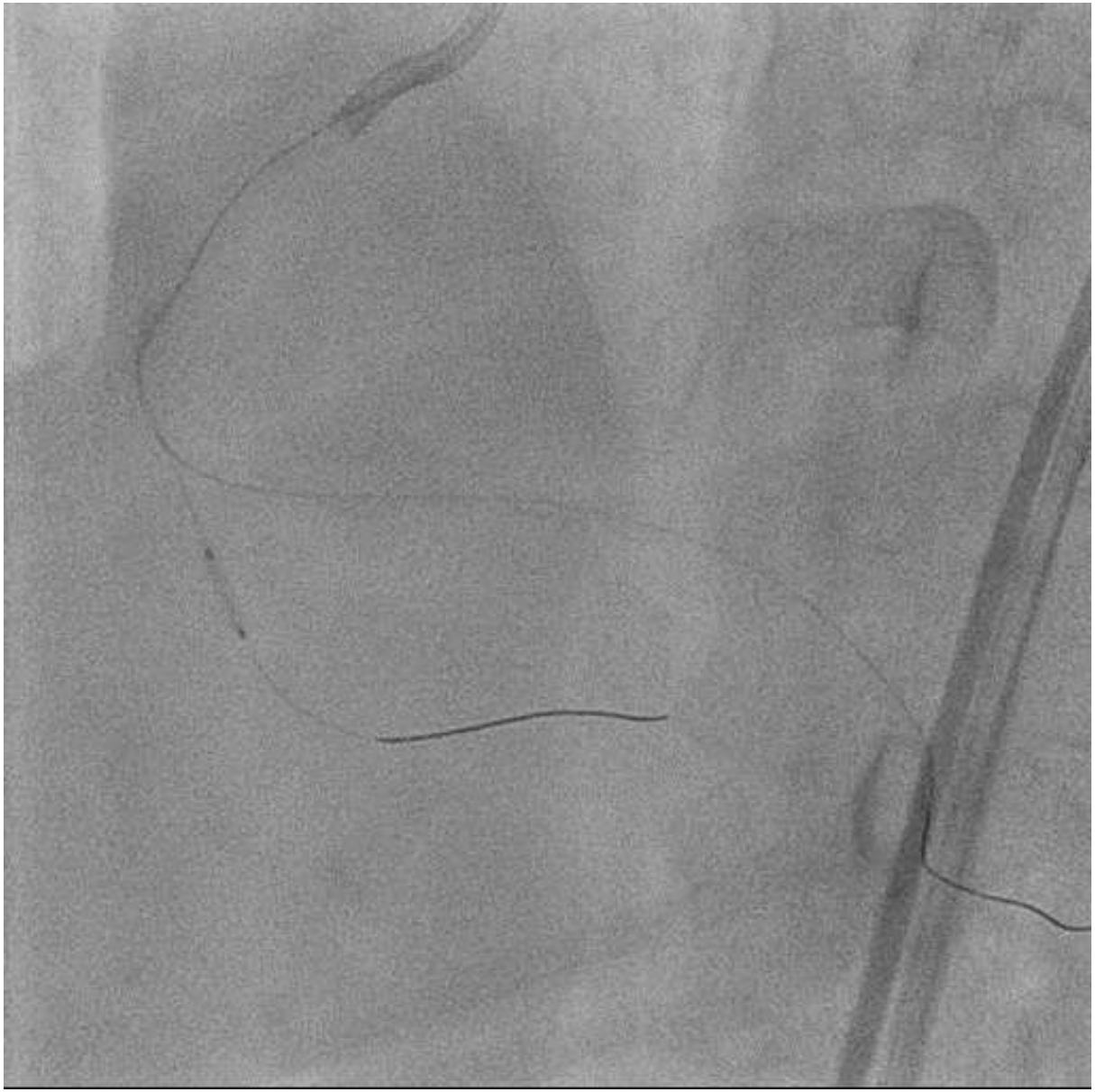


XT-A could be advanced into distal RCA

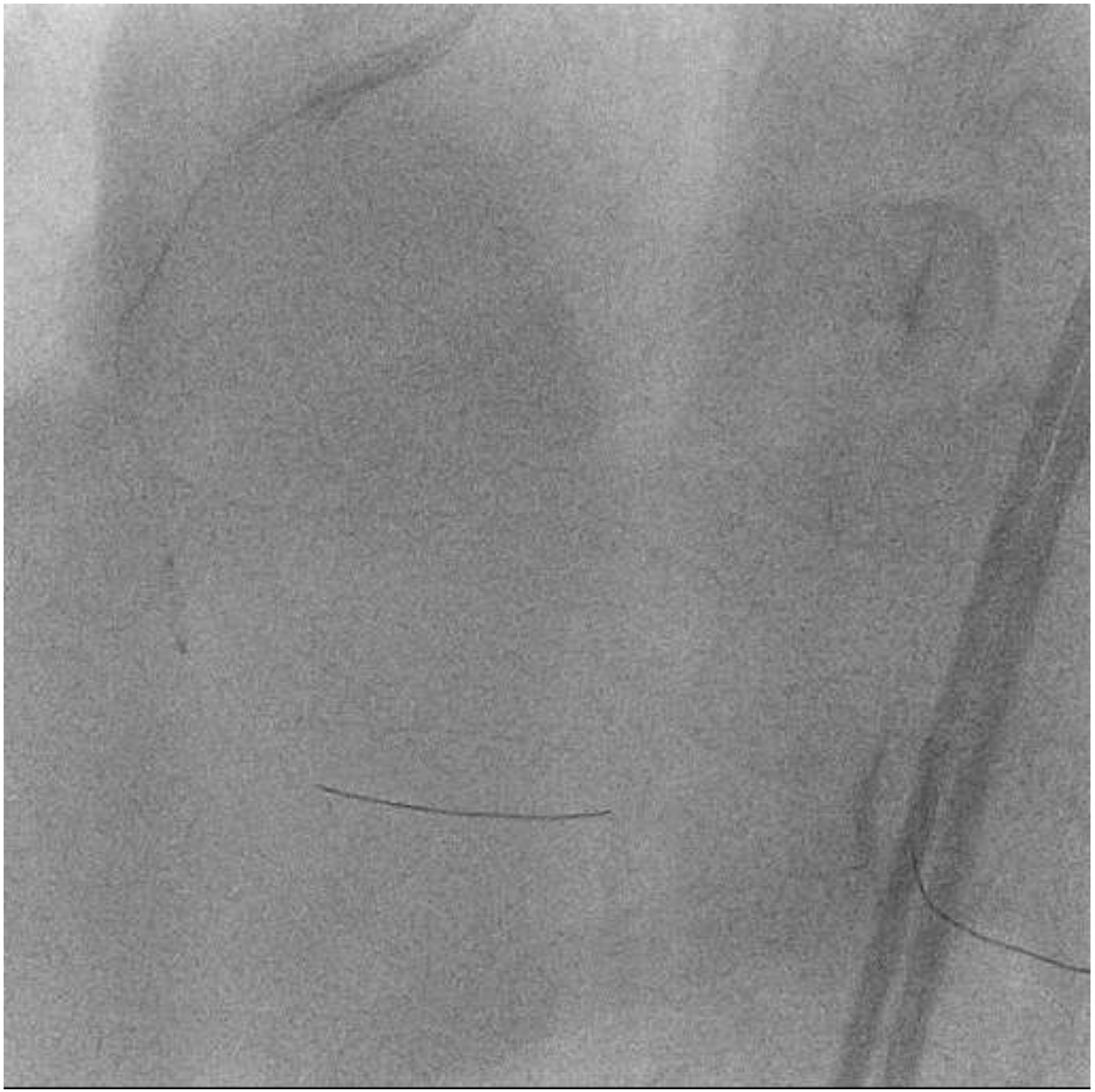
After GW crossing, ballooning with 1.5mm balloon and 2.0mm balloon was performed.



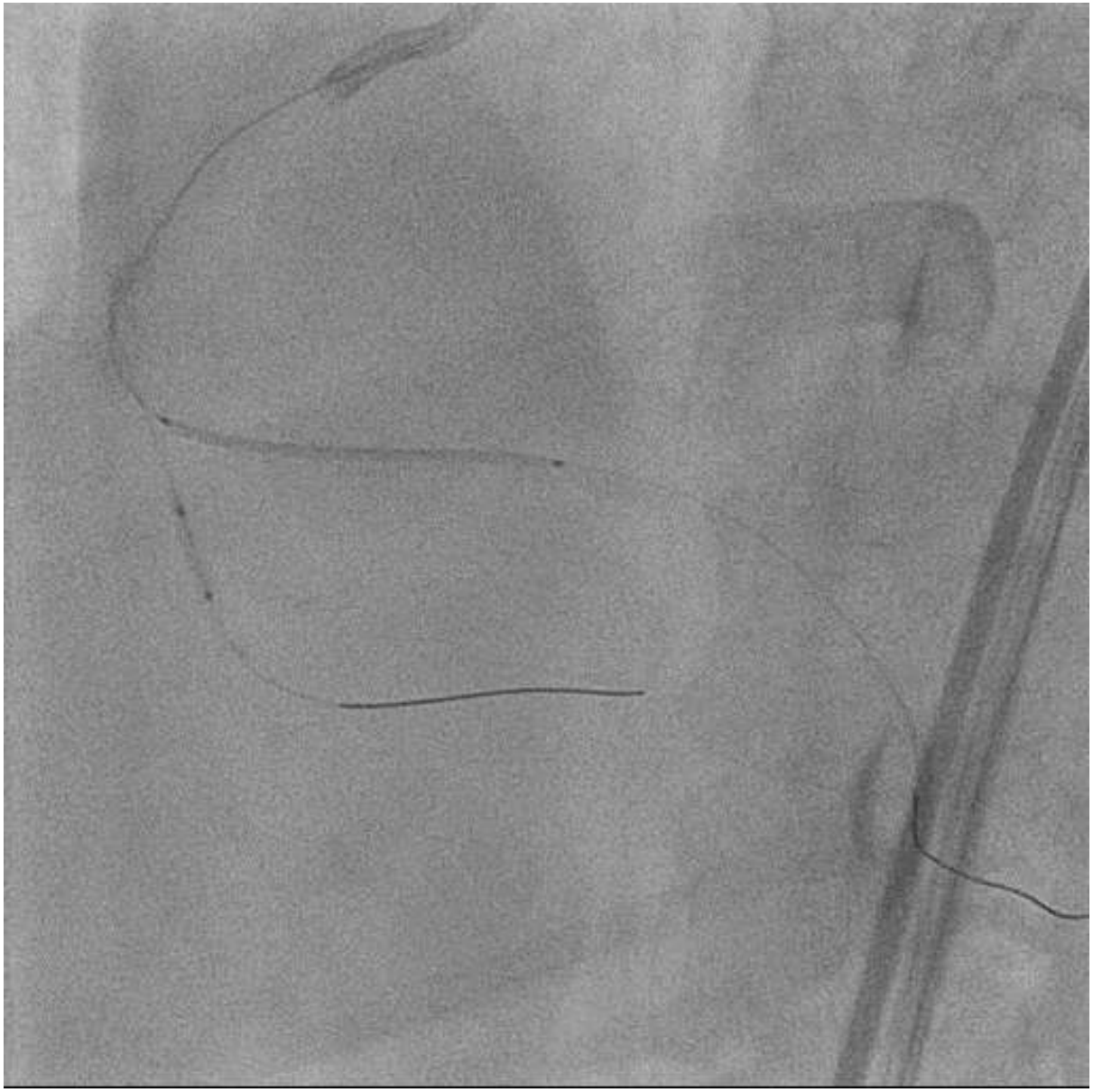
CAG after ballooning showed diffuse lesion from proximal to distal part.

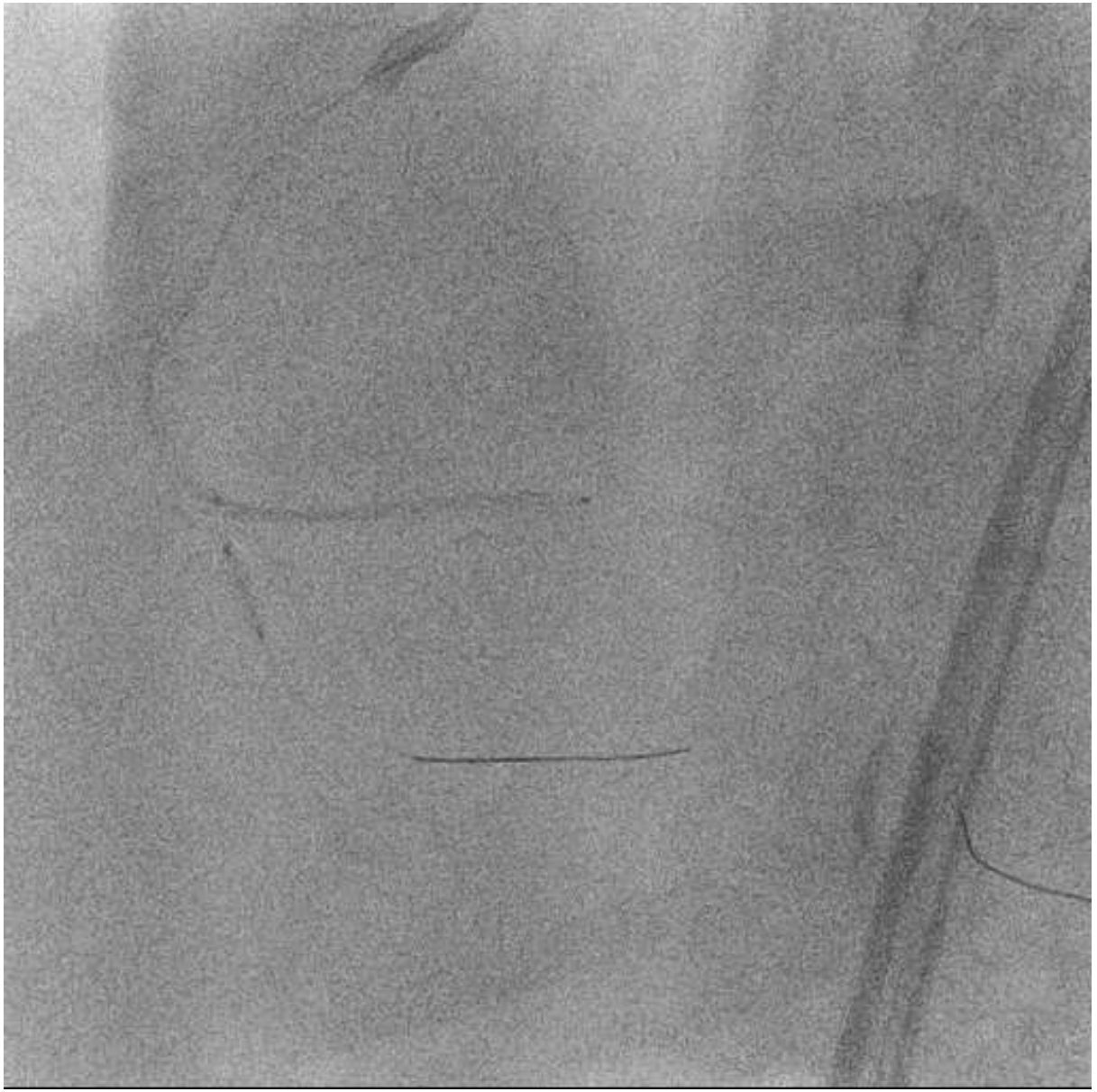


CAG after ballooning showed diffuse lesion from proximal to distal part.

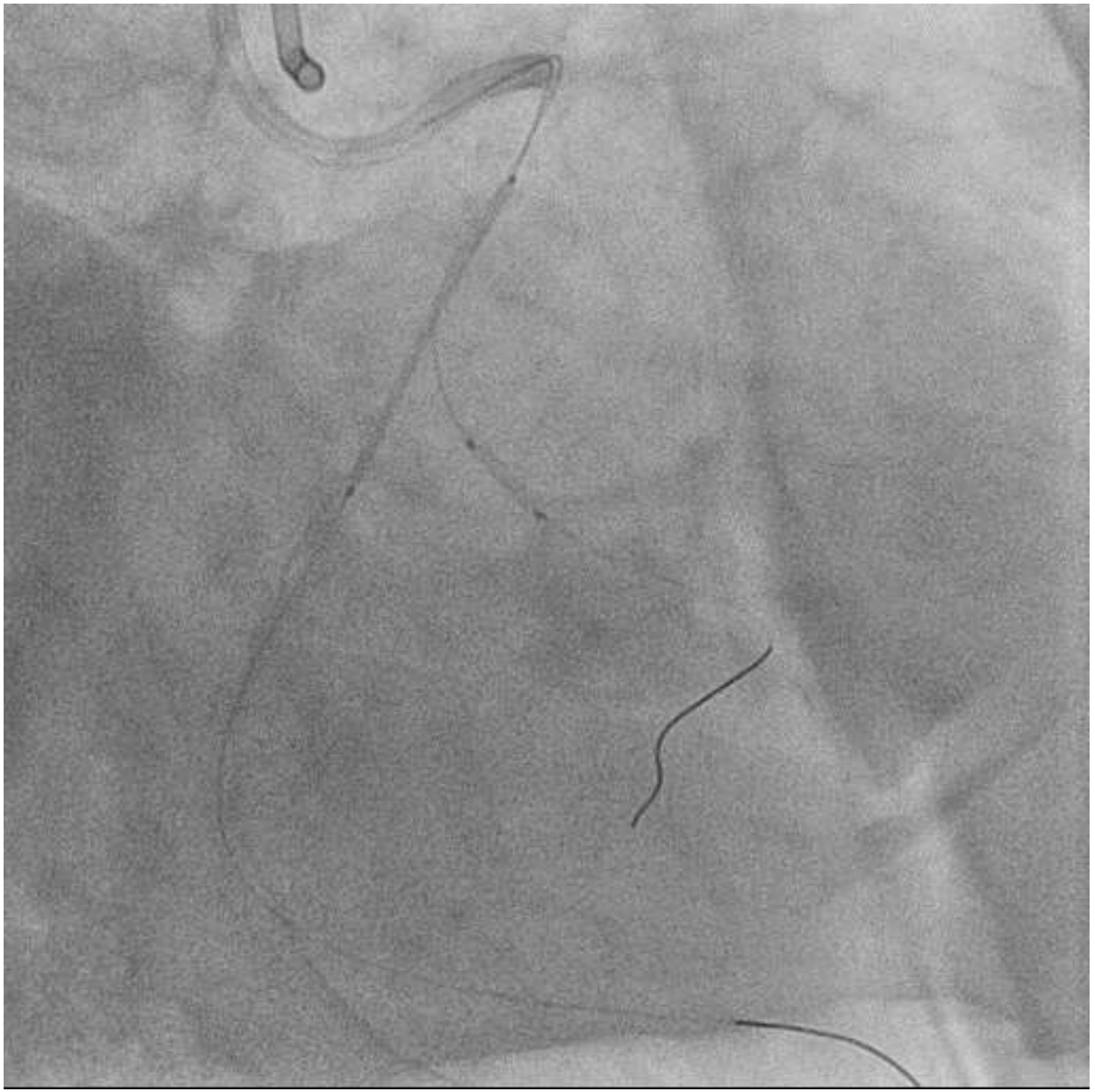


Ultimaster 2.25/38mm was used because of its good deliverability and conformability.
Ultimaster 2.25/38mm could be delivered into distal RCA using anchor balloon

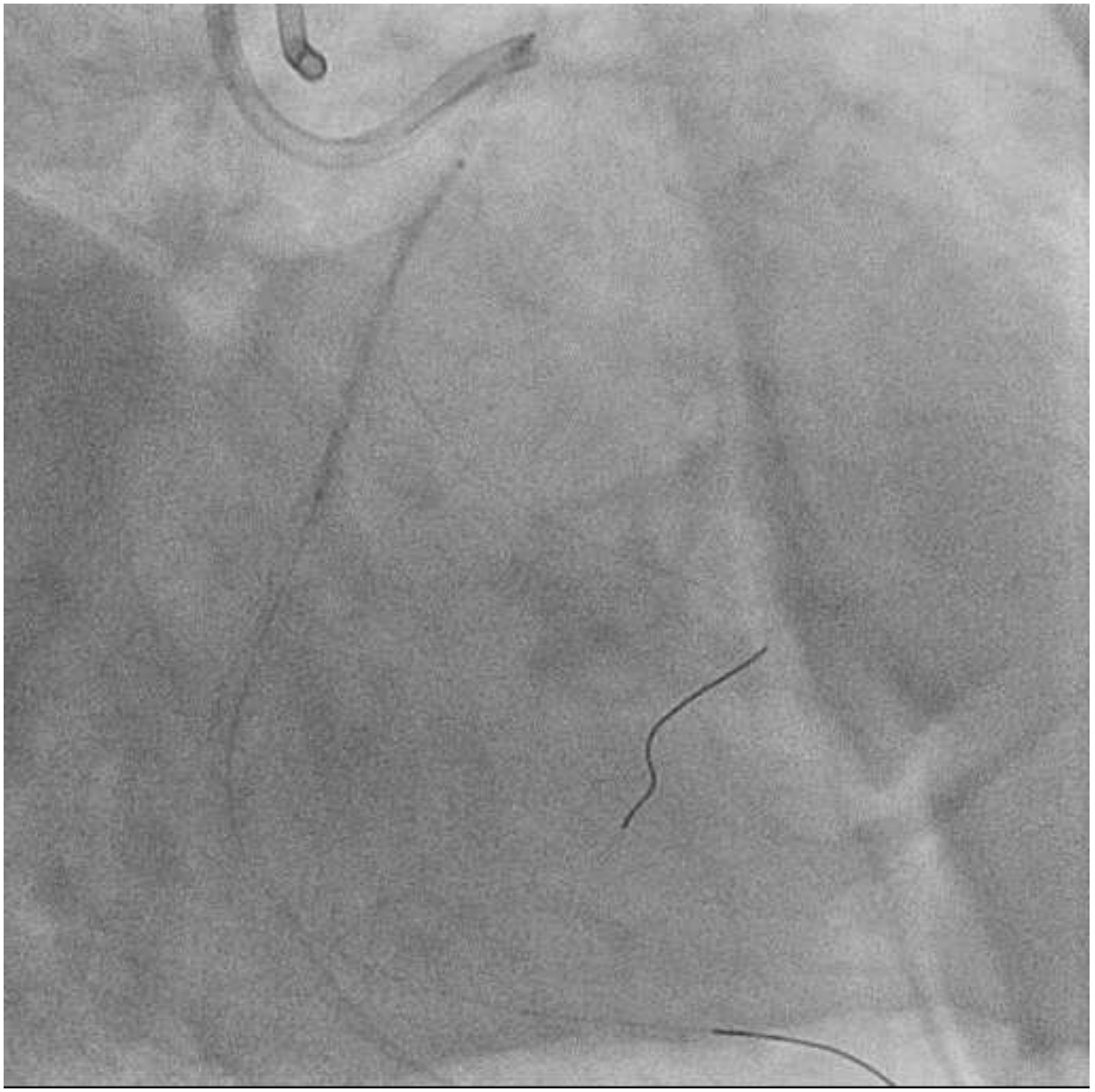


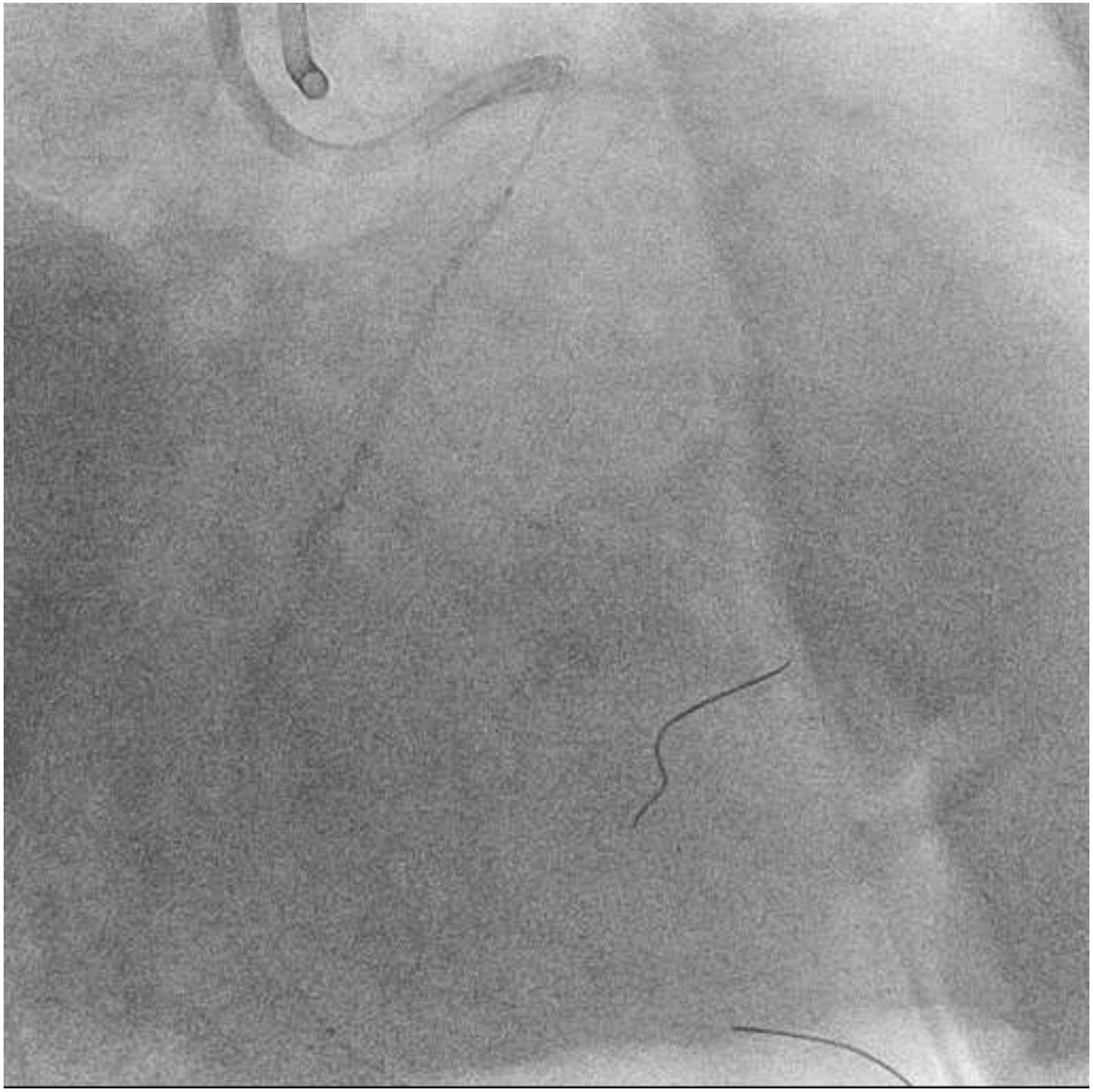


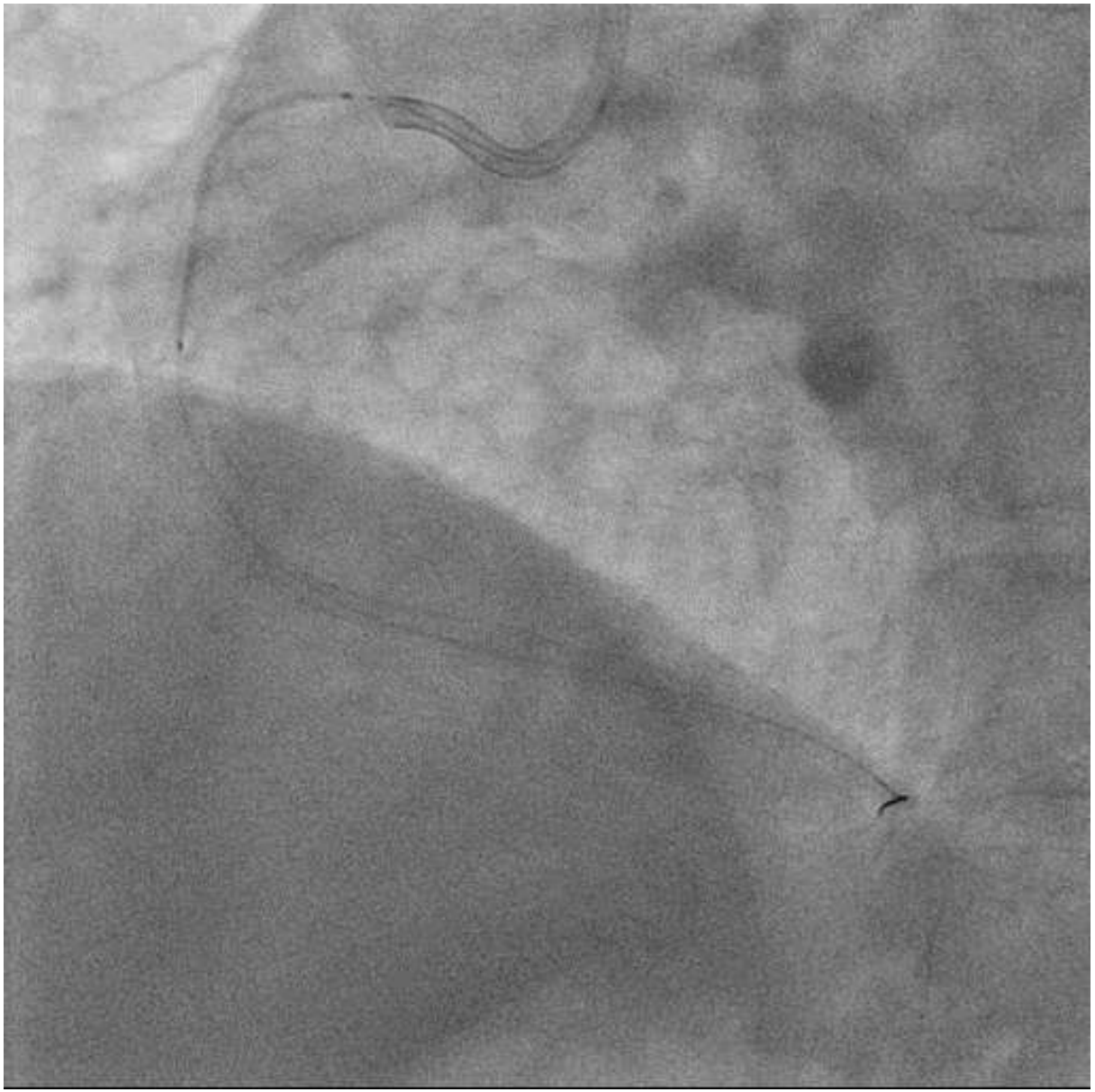
Ultimaster 2.25/38mm was implanted.



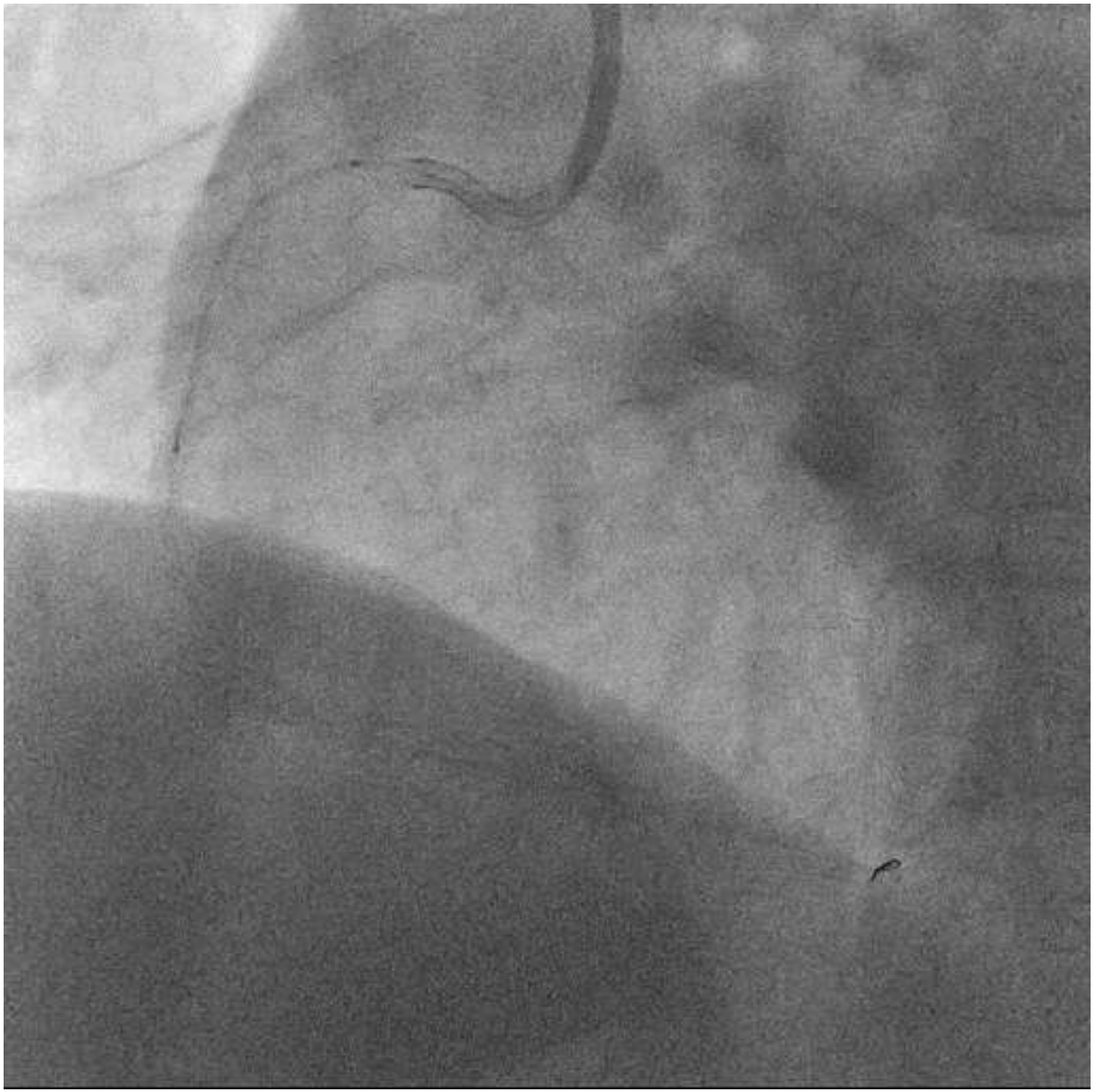
2nd stent, Ultimaster 2.75/33mm was used.





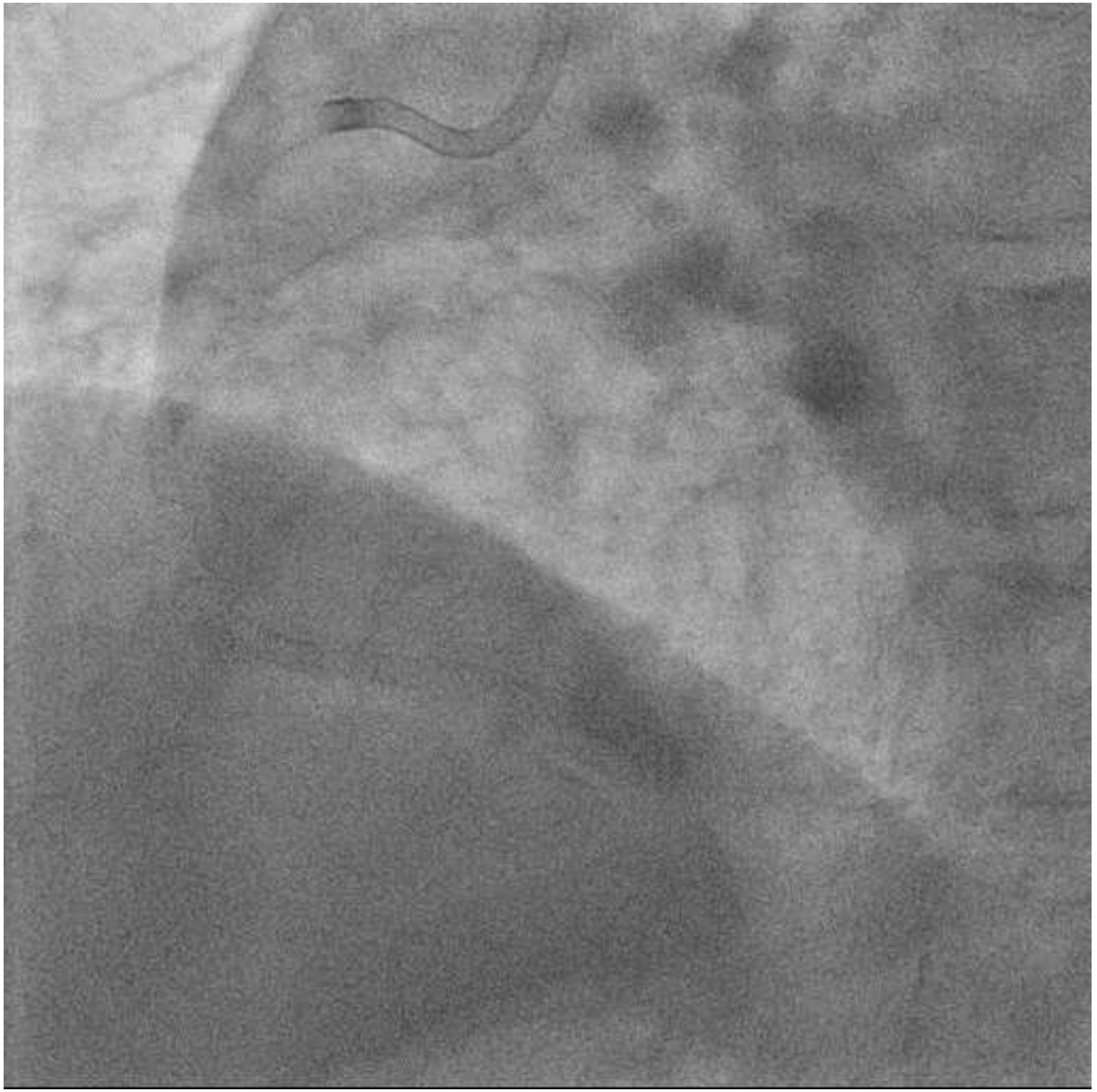


3rd stent, Ultimaster 3.0/33mm was inserted.



3rd stent, Ultimaster 3.0/33mm was implanted.

Final CAG showed good recanalization.



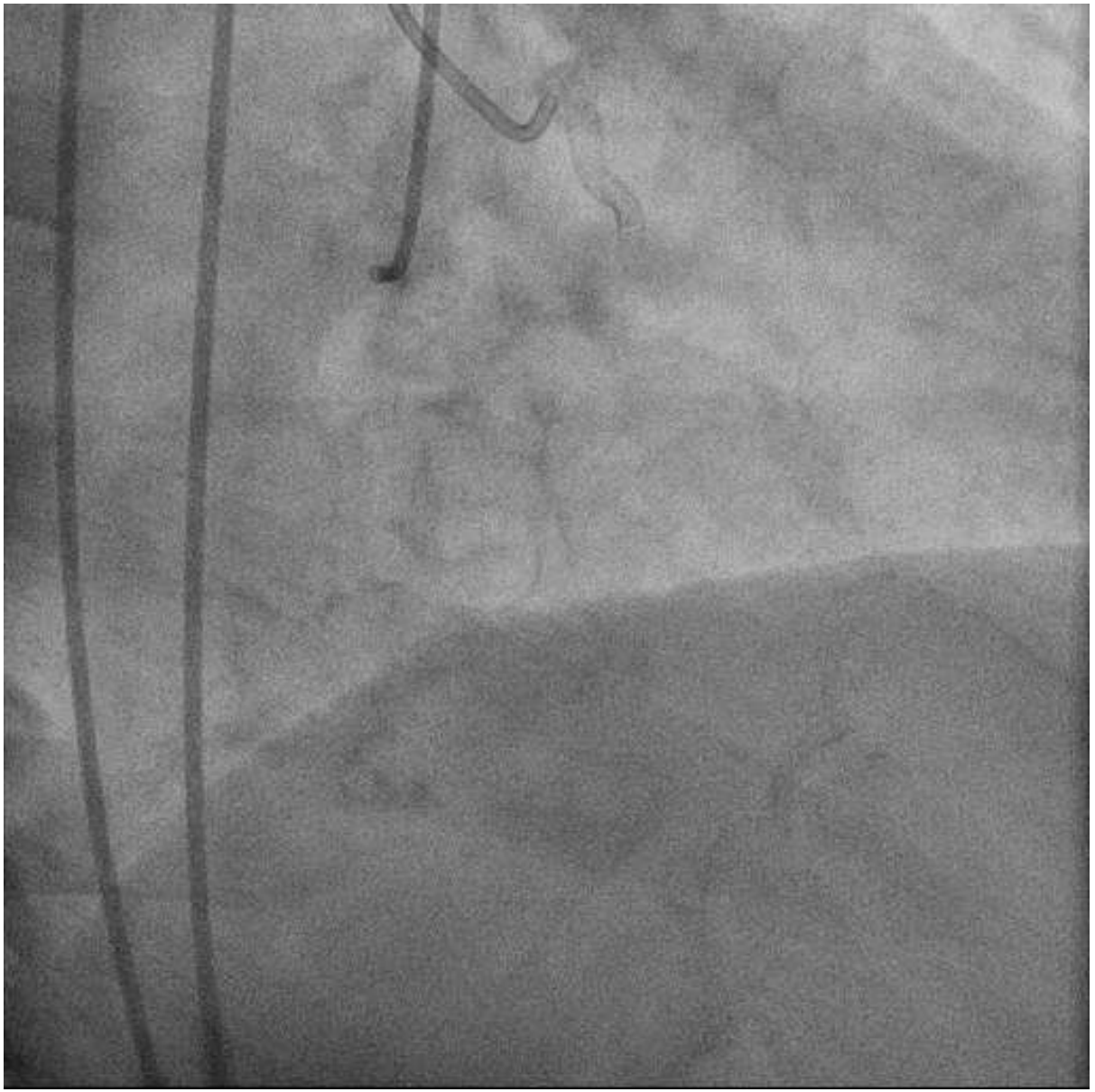
Summary of Case1

- CTO lesion in Tortuous RCA
- To get stable position of antegrade system, double lumen catheter and anchor balloon technique was used.
- Successful wiring could be achieved by use of XT-R and XT-A
- Ultimaster was chosen in this case
  - Good deliverability
  - Good conformability

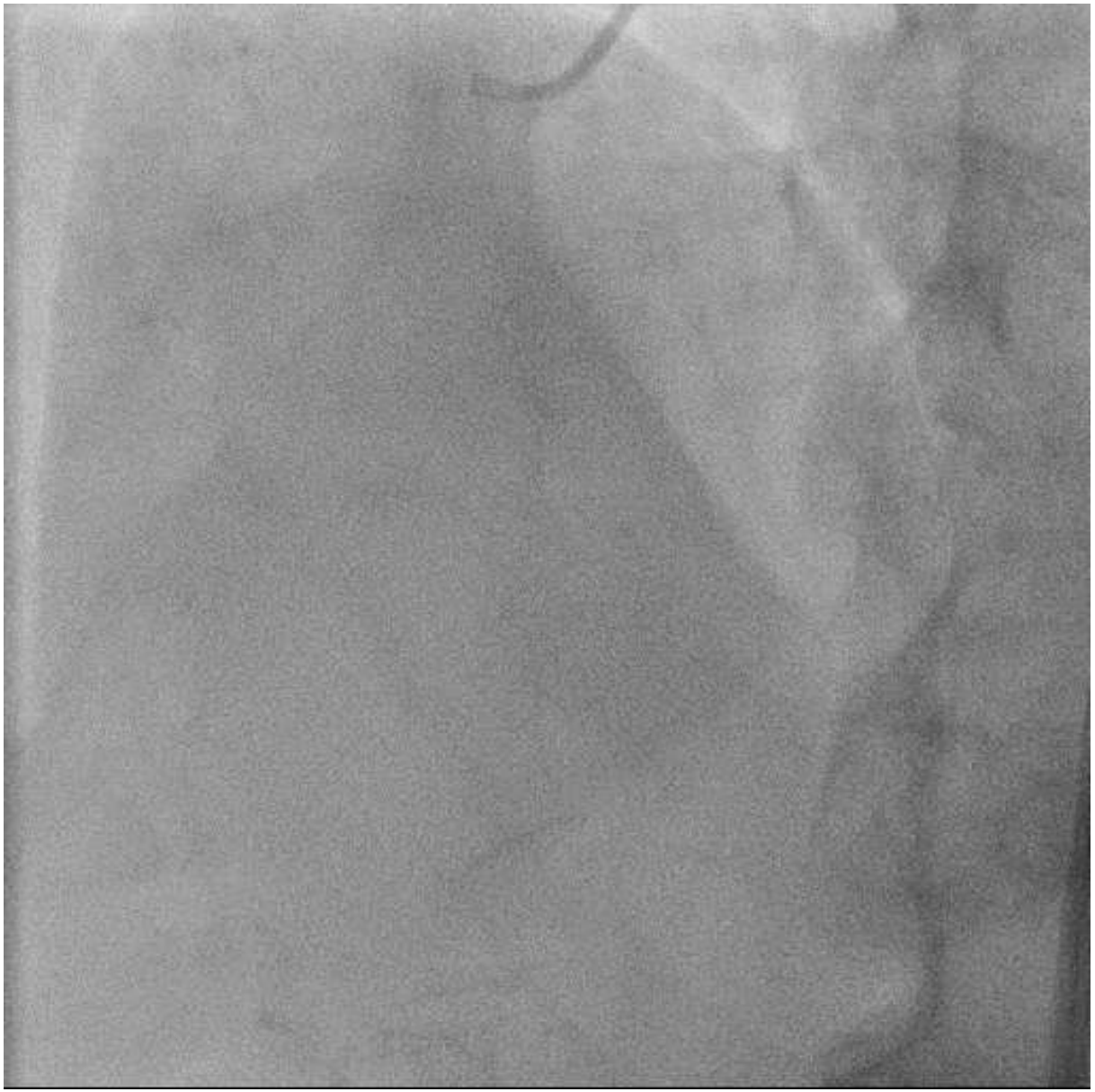
Case2 reattempted RCA CTO

63 y/o, Male

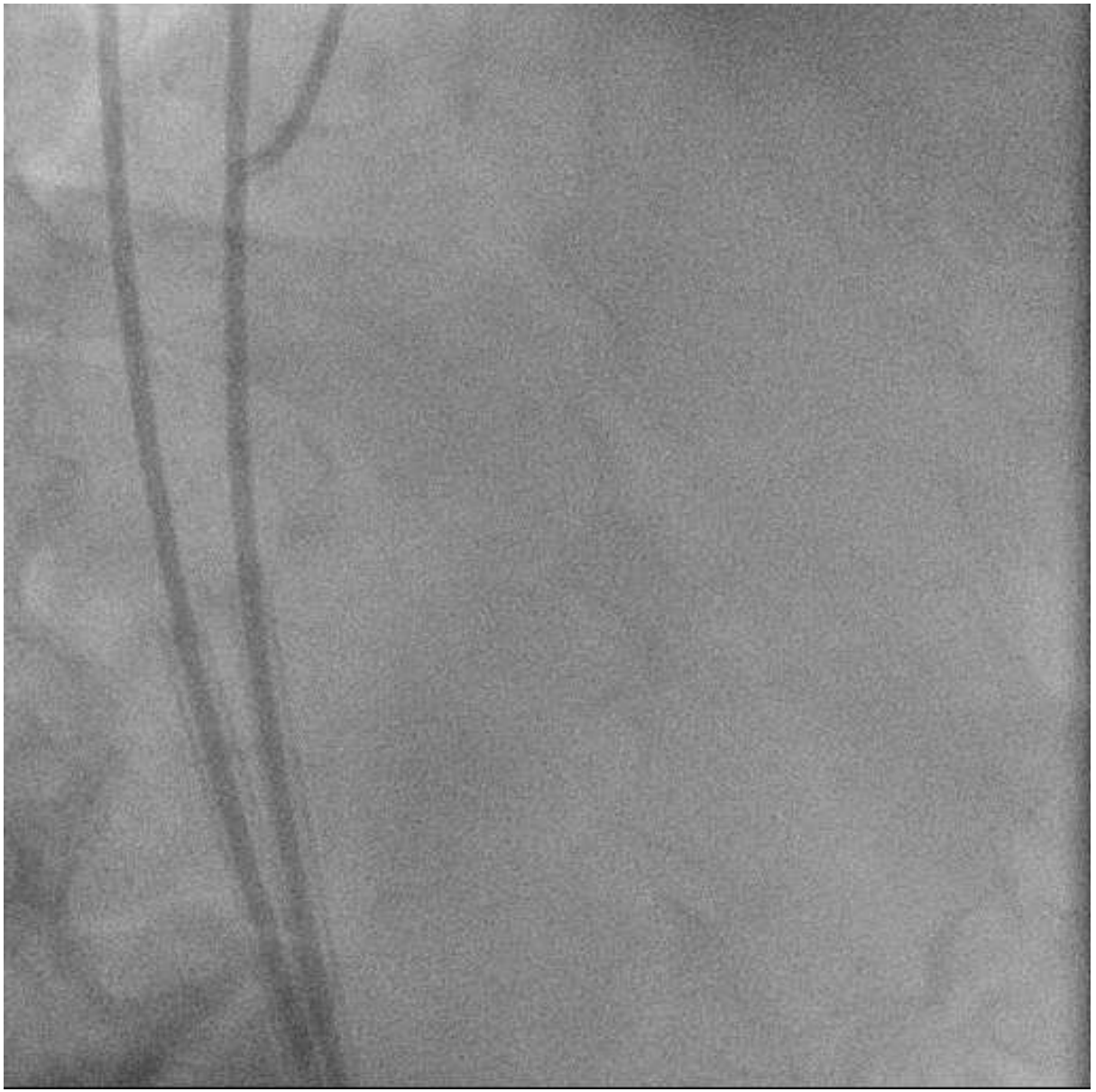
AP

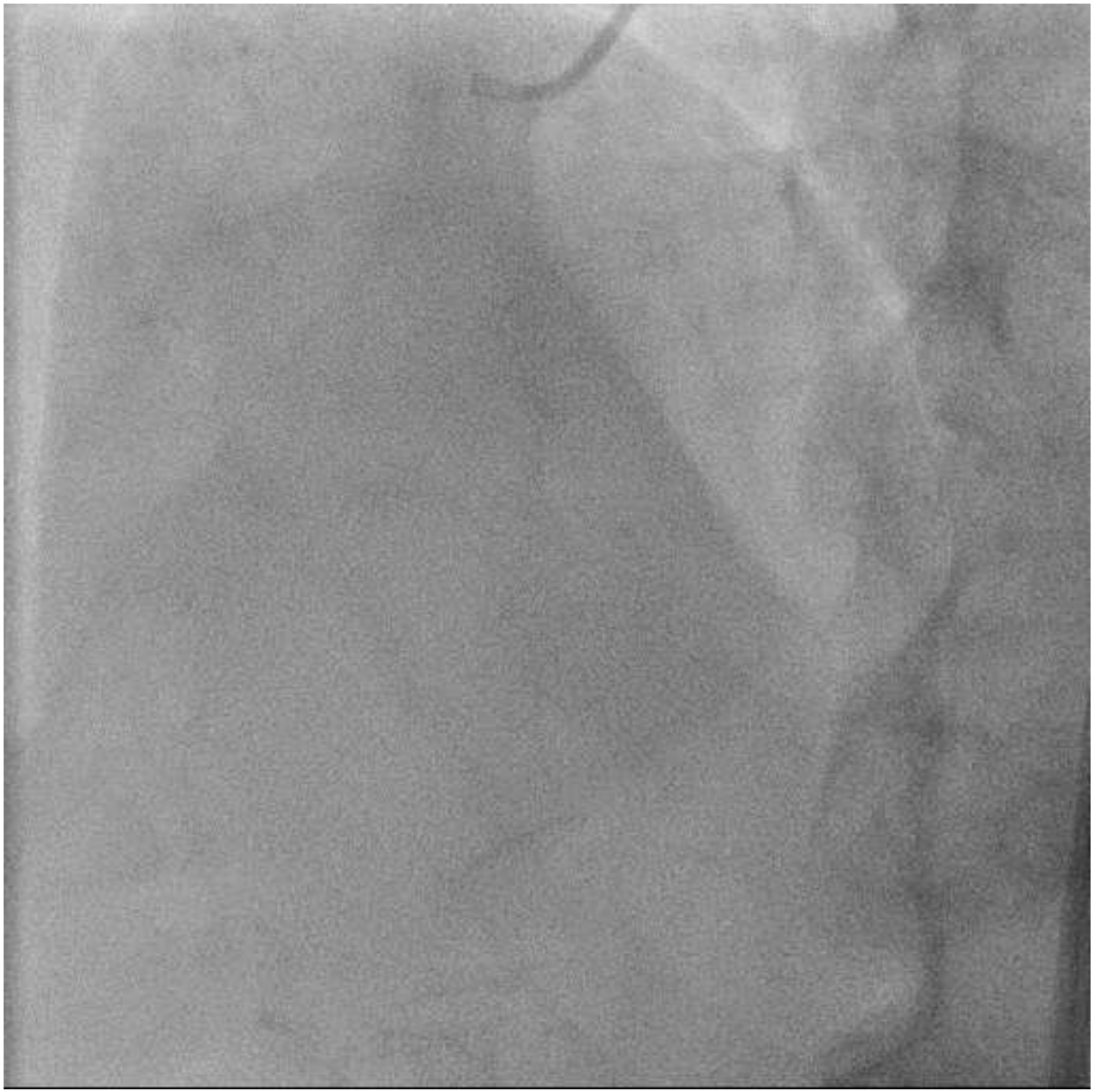


Target lesion was CTO at mid RCA

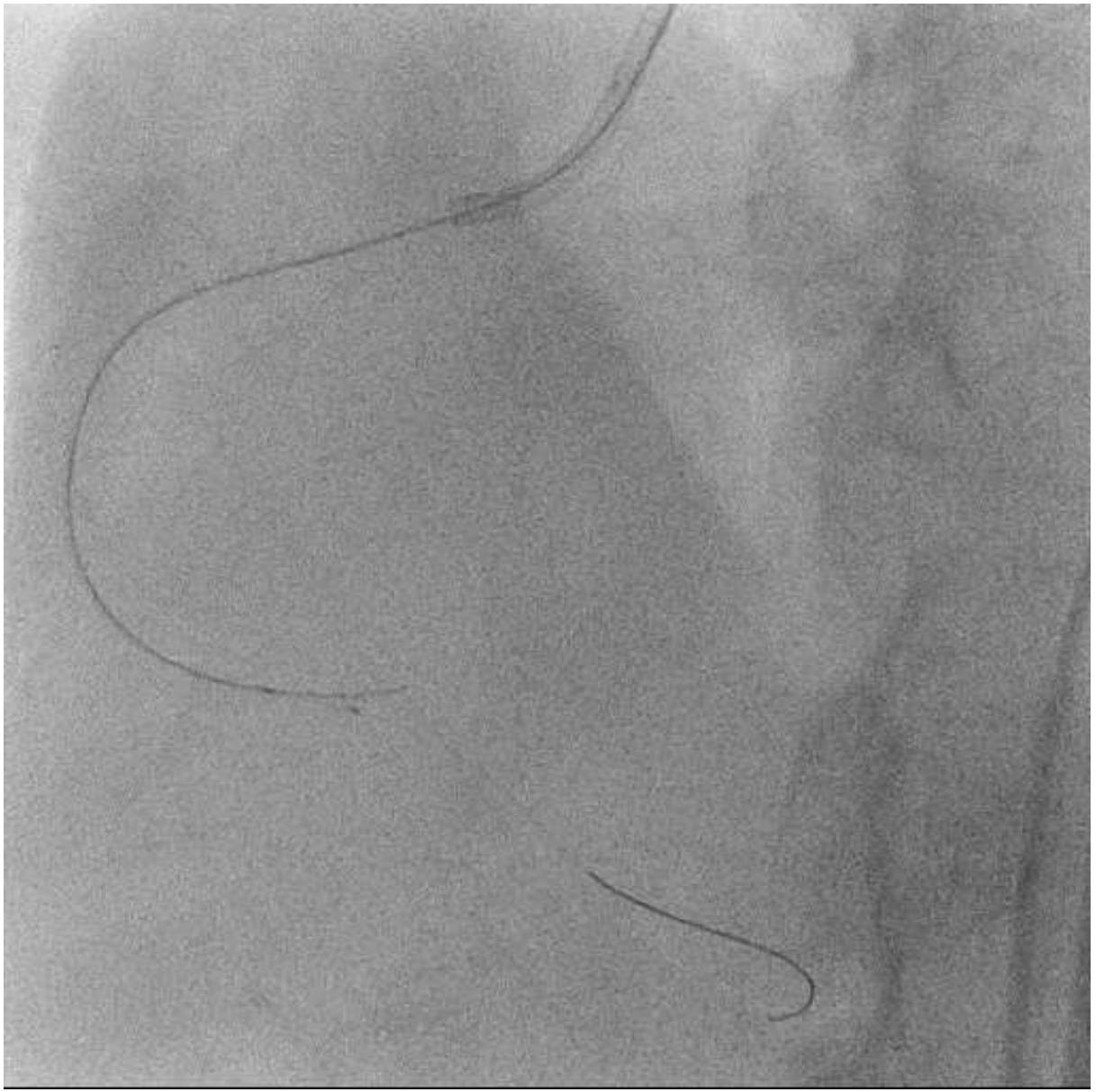


CTO had no stamp with side branch.

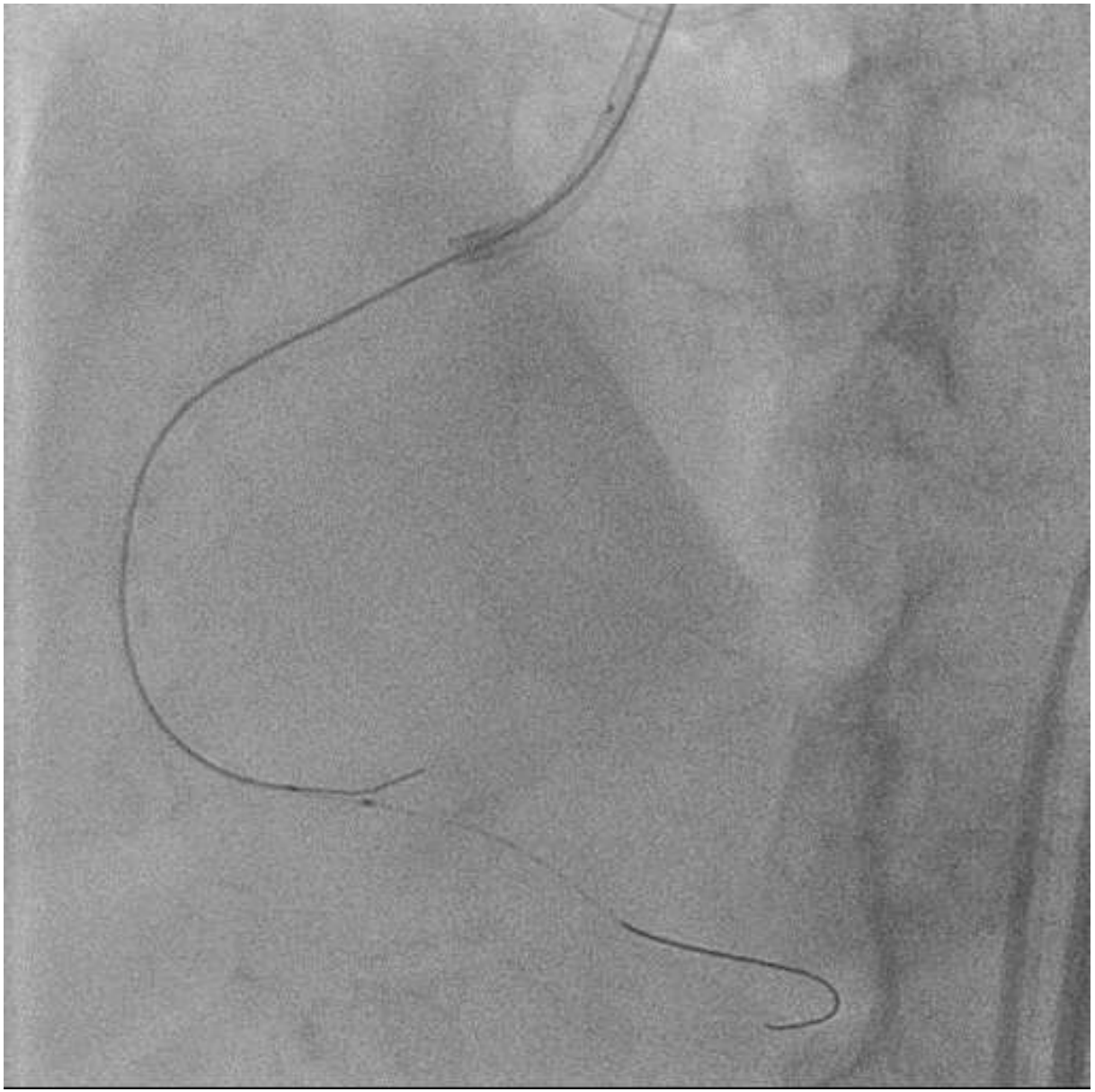




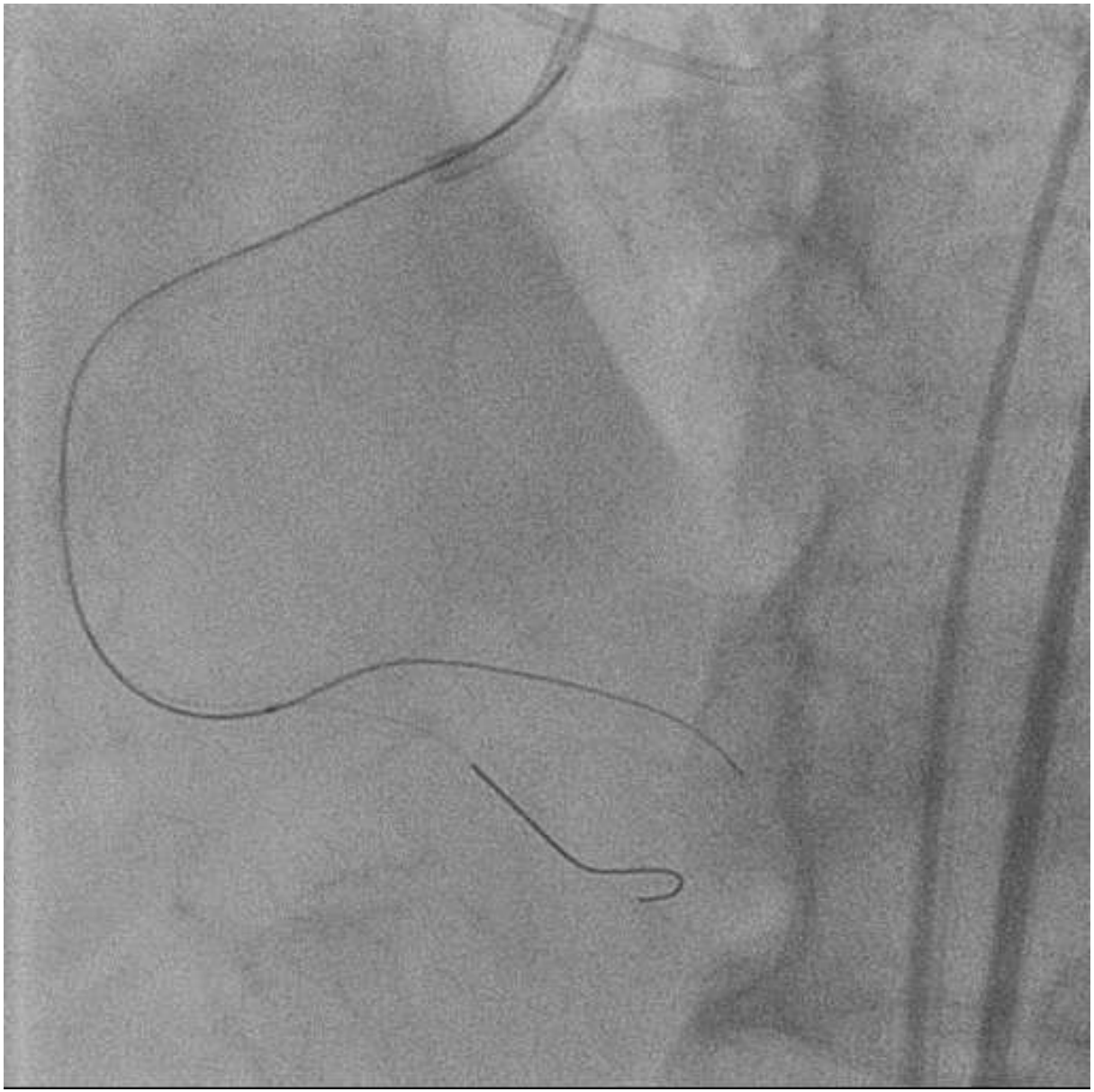
CAG could not show bifurcation between PD and PL clearly. It suggested that bifurcation may be occluded.



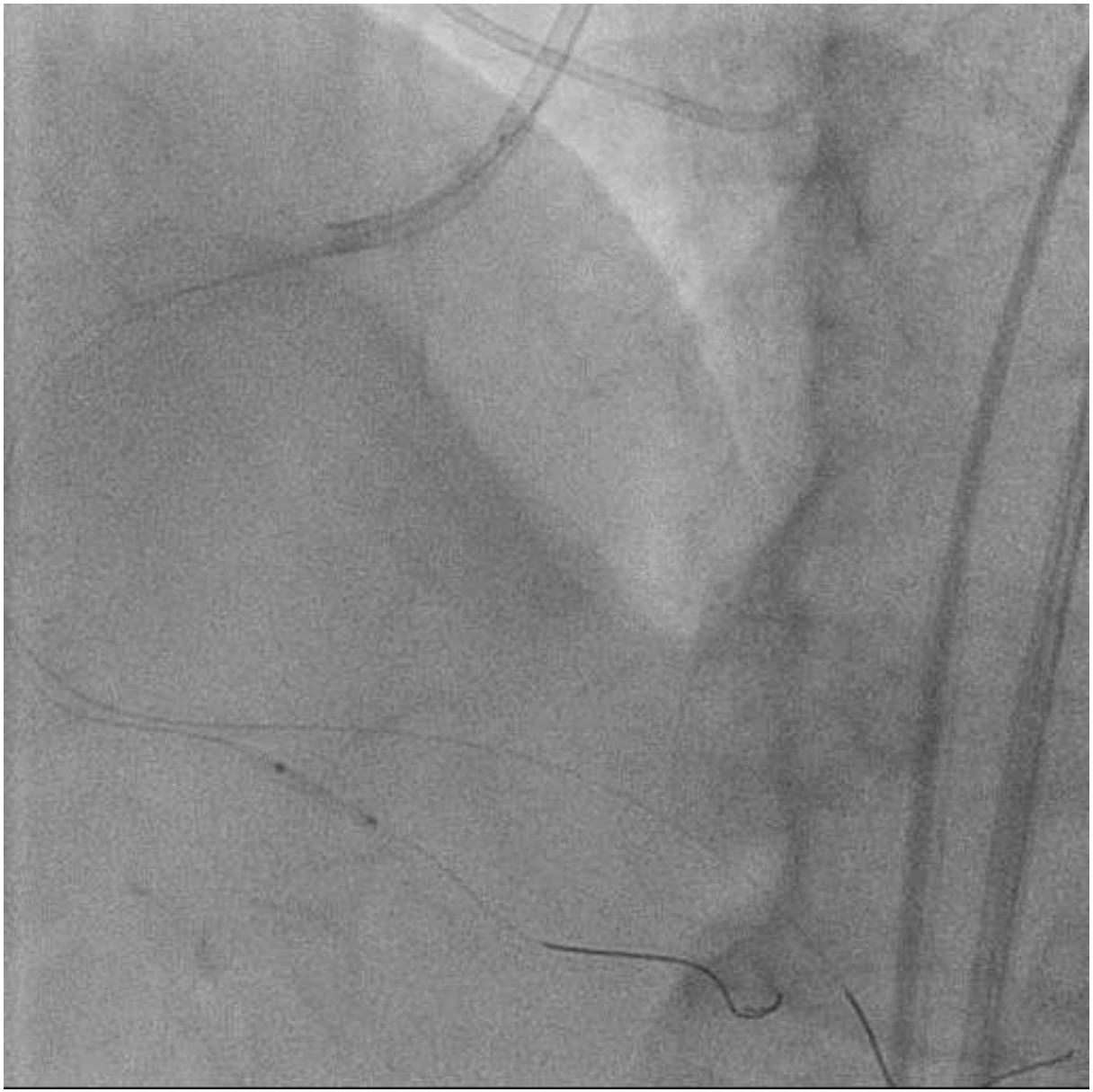
XT-R supported with DLC was used but XT-R could not be advanced. GW was exchanged into GaianNext1. GaiaNext1 could be advanced into CTO.



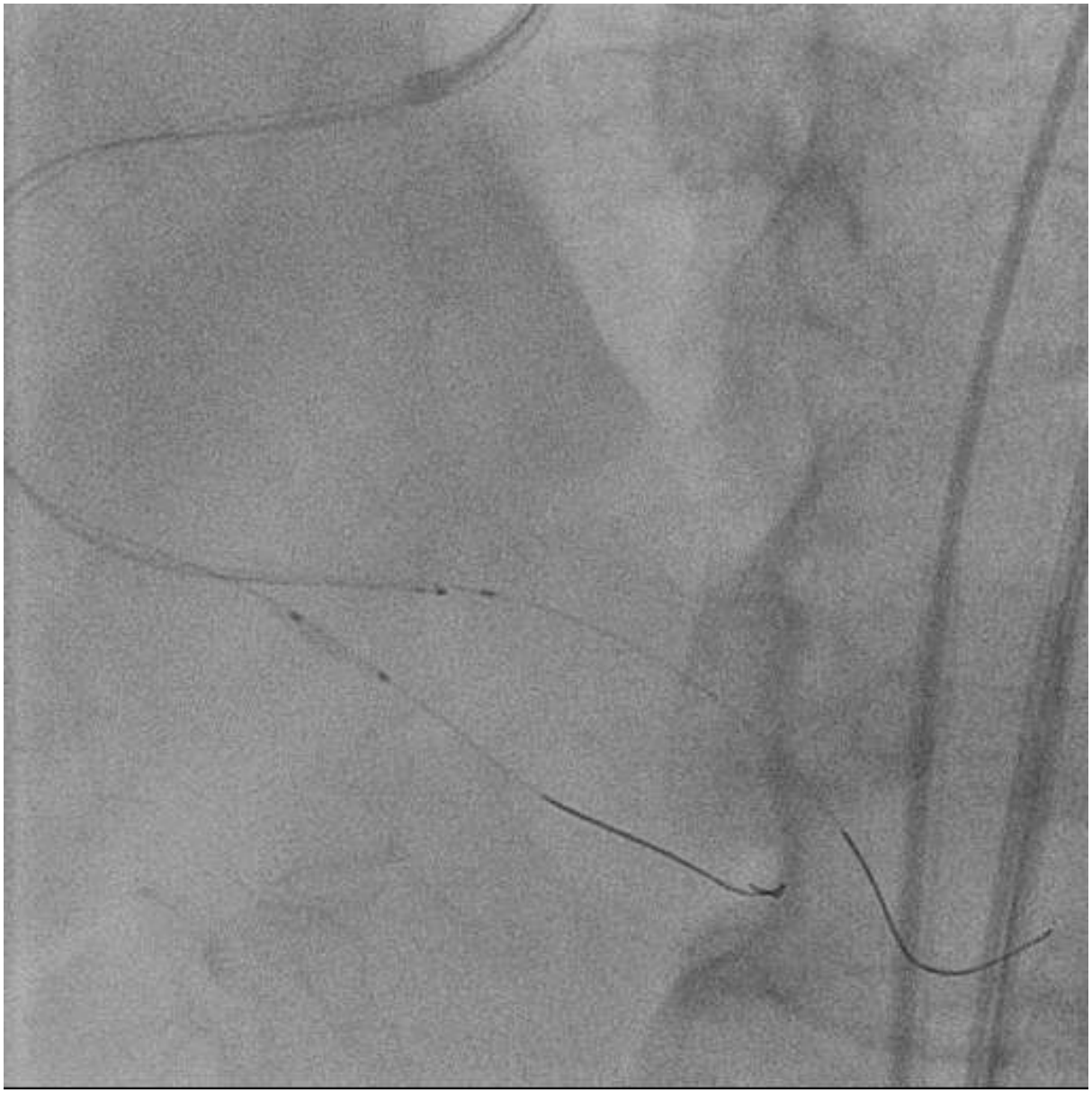
GaiaNext1 could be advanced into CTO.



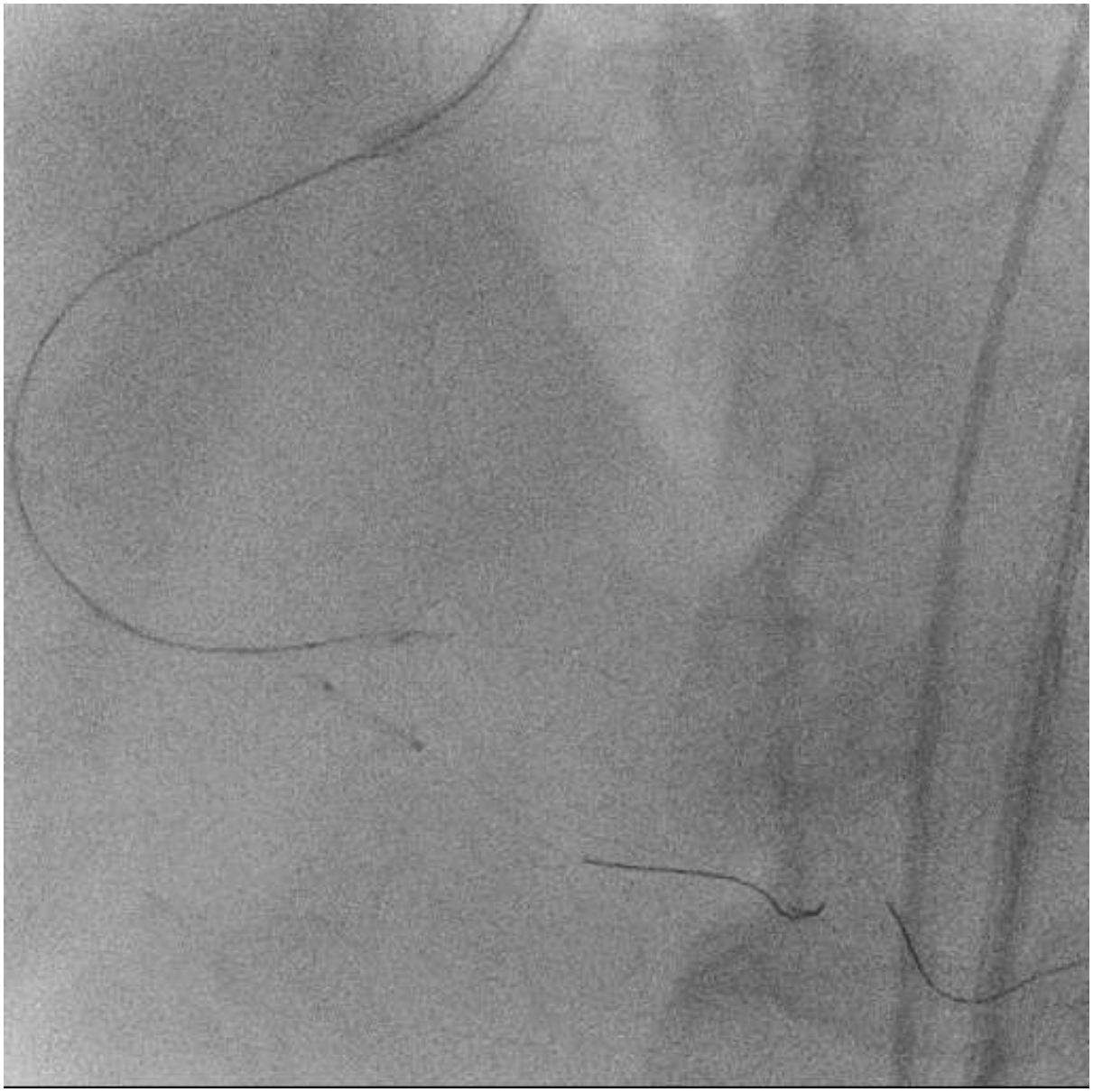
GaiaNext1 could be advanced into 4PD gradually.



Ballooning supported by anchor technique was performed. CAG showed occlusion of 4PL.

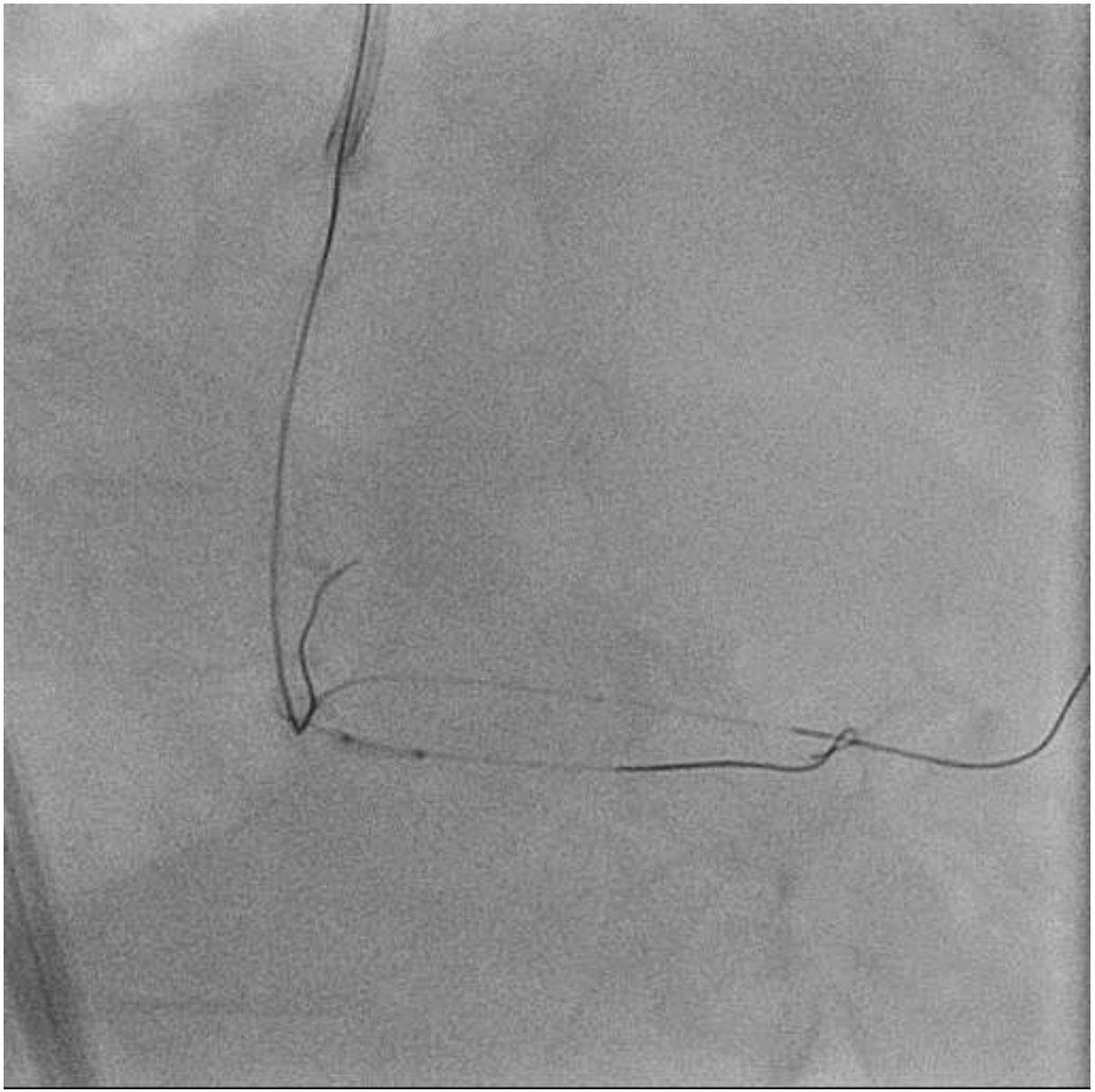


To identify entry point of 4PL, IVUS was used.



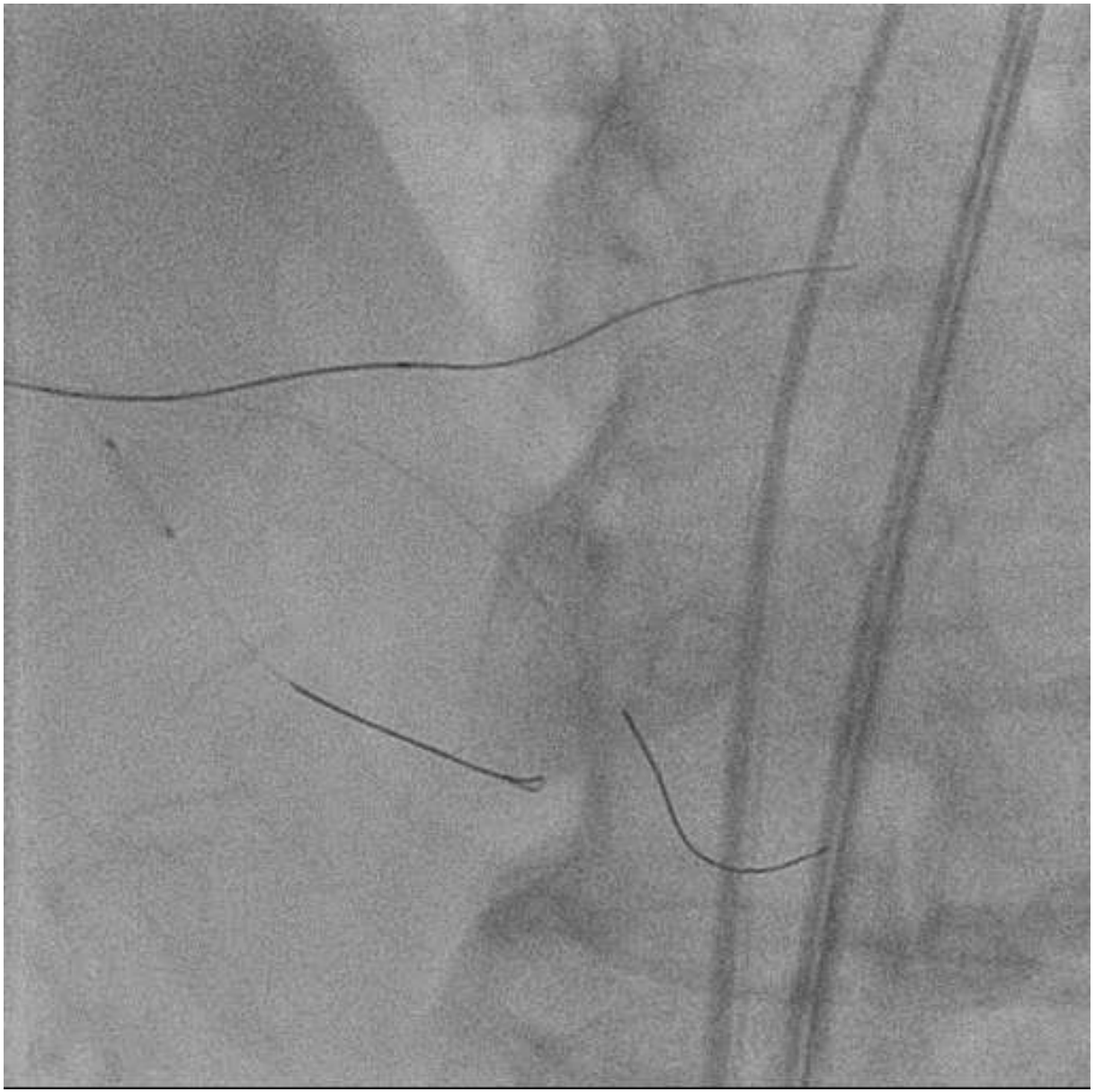
Based on IVUS findings, Wiring using GaiaNext1 supported by DLC was performed.

GaiaNext1 could get entry of 4PL.

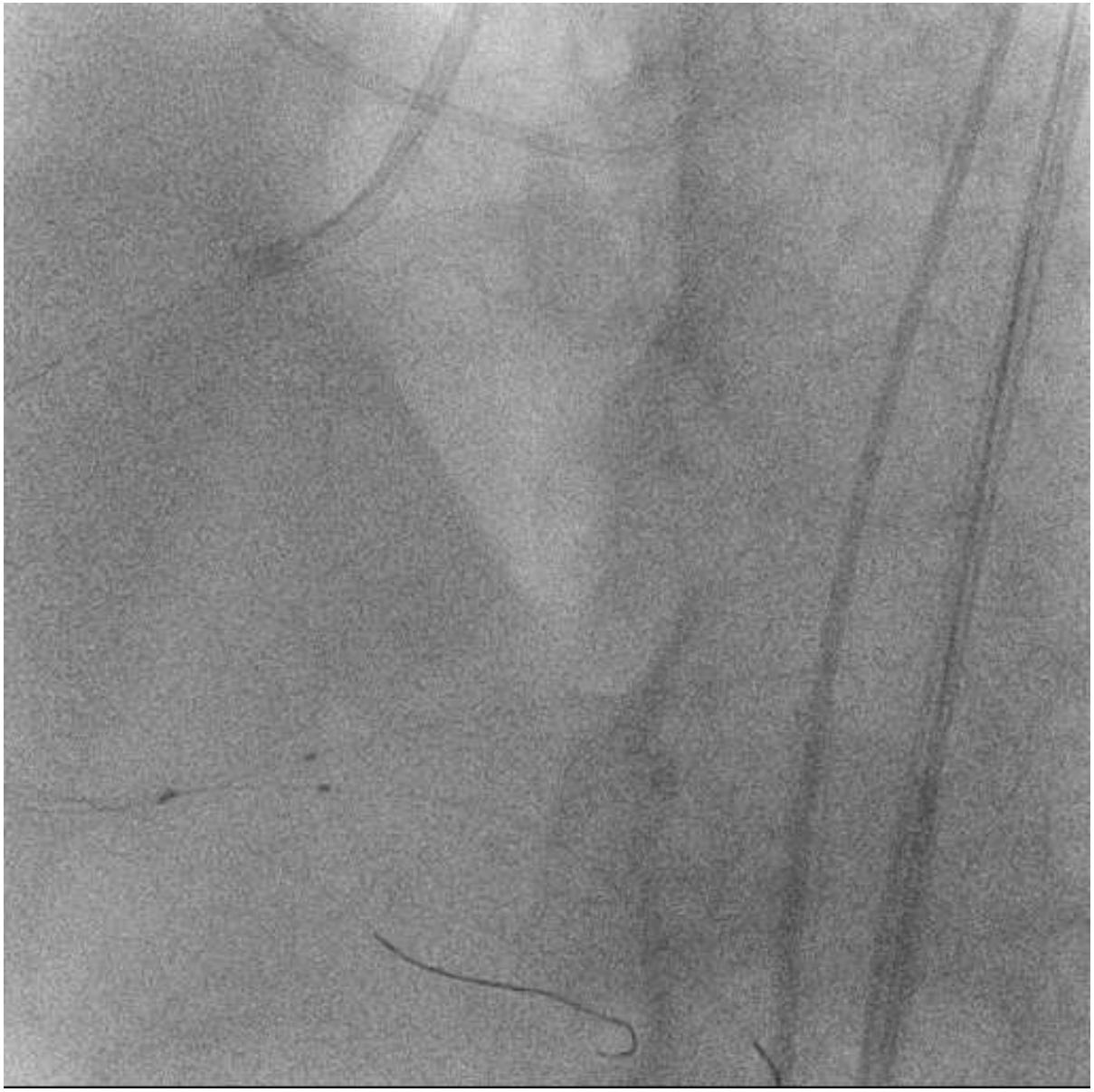


At this point, bending point existed. GaiaNext1 could not negotiate this part.

De-escalation to XT-R was performed. XT-R could pass this part.

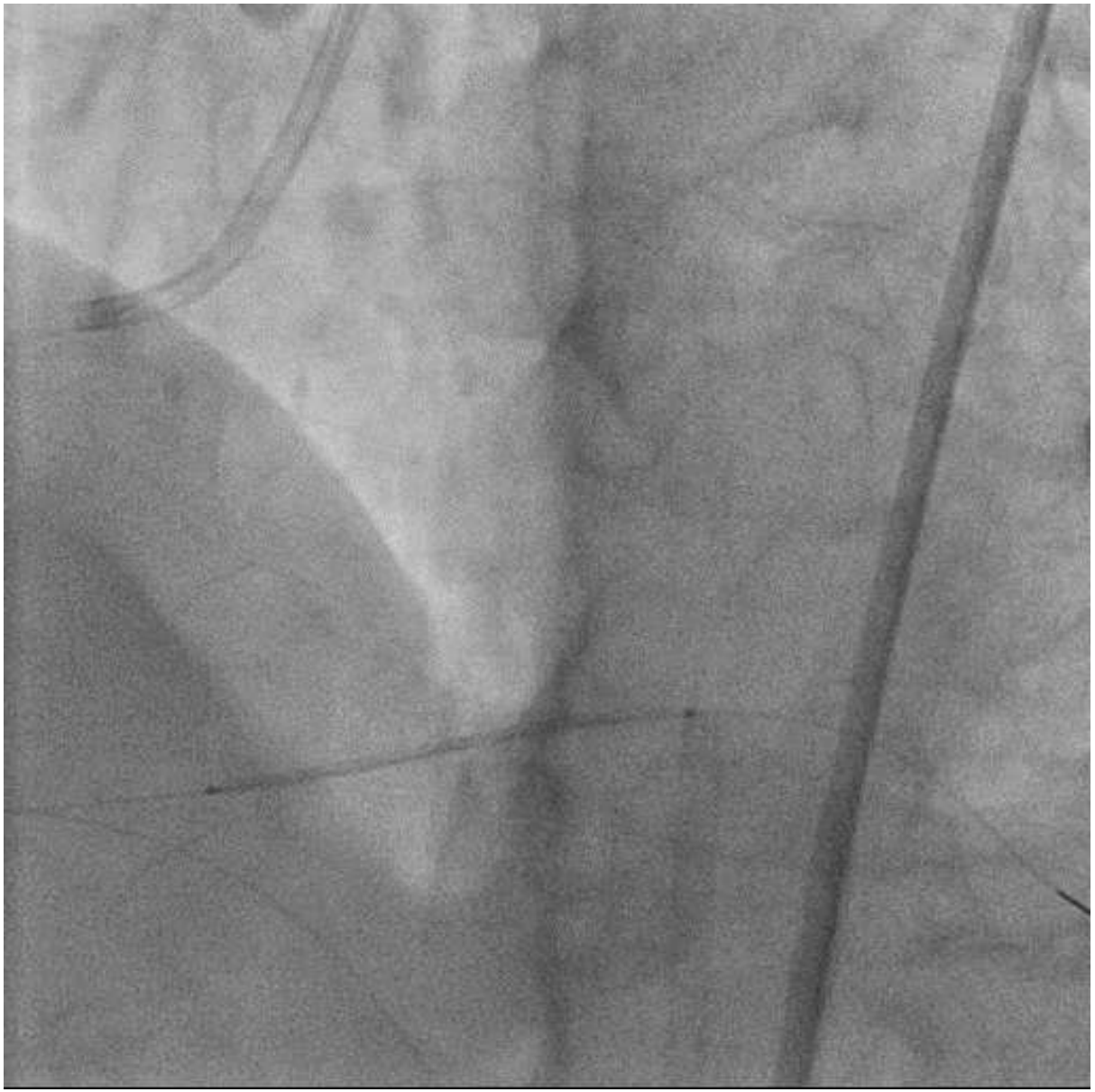


XT-R could be advanced into distal 4PL.

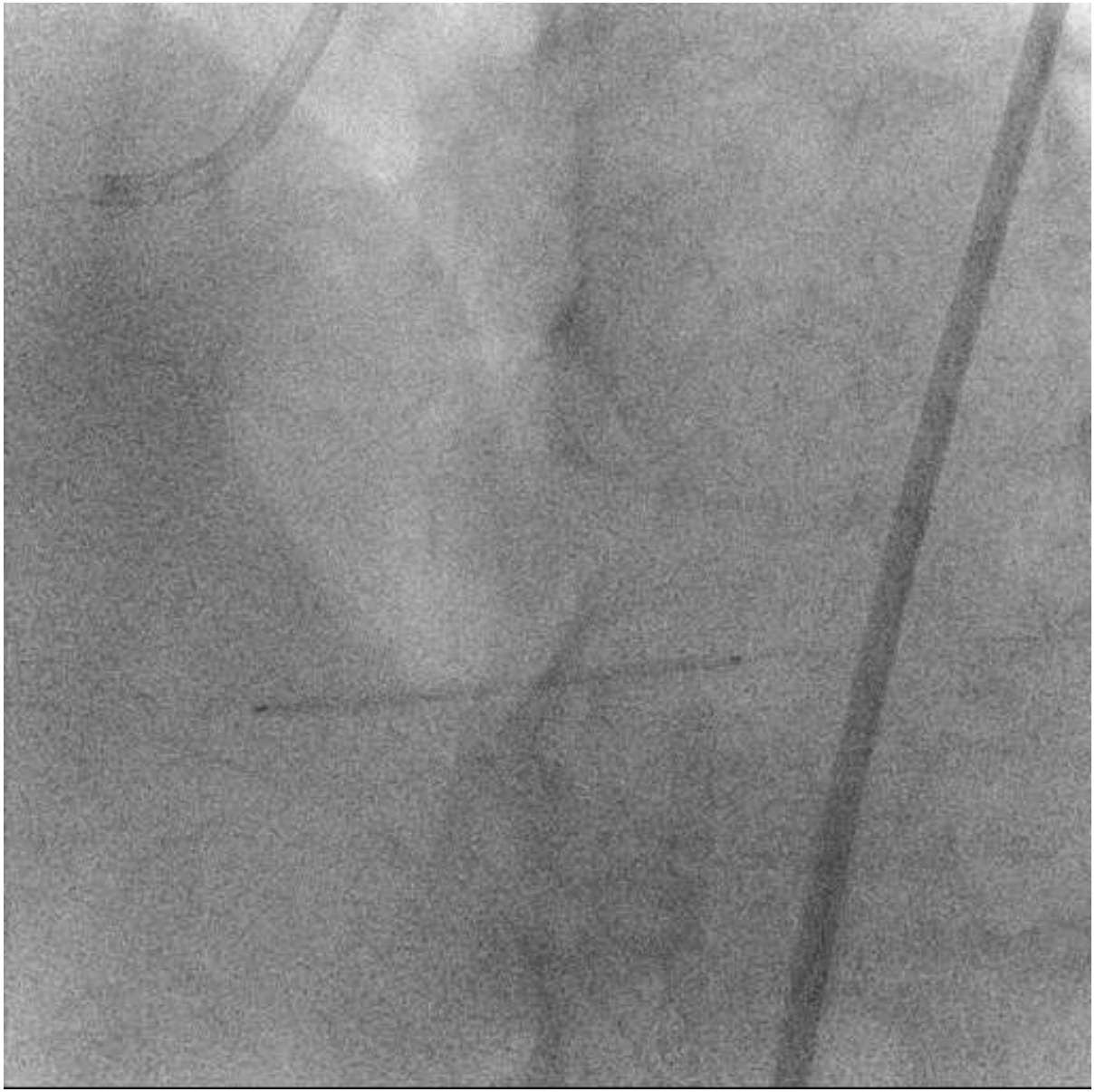


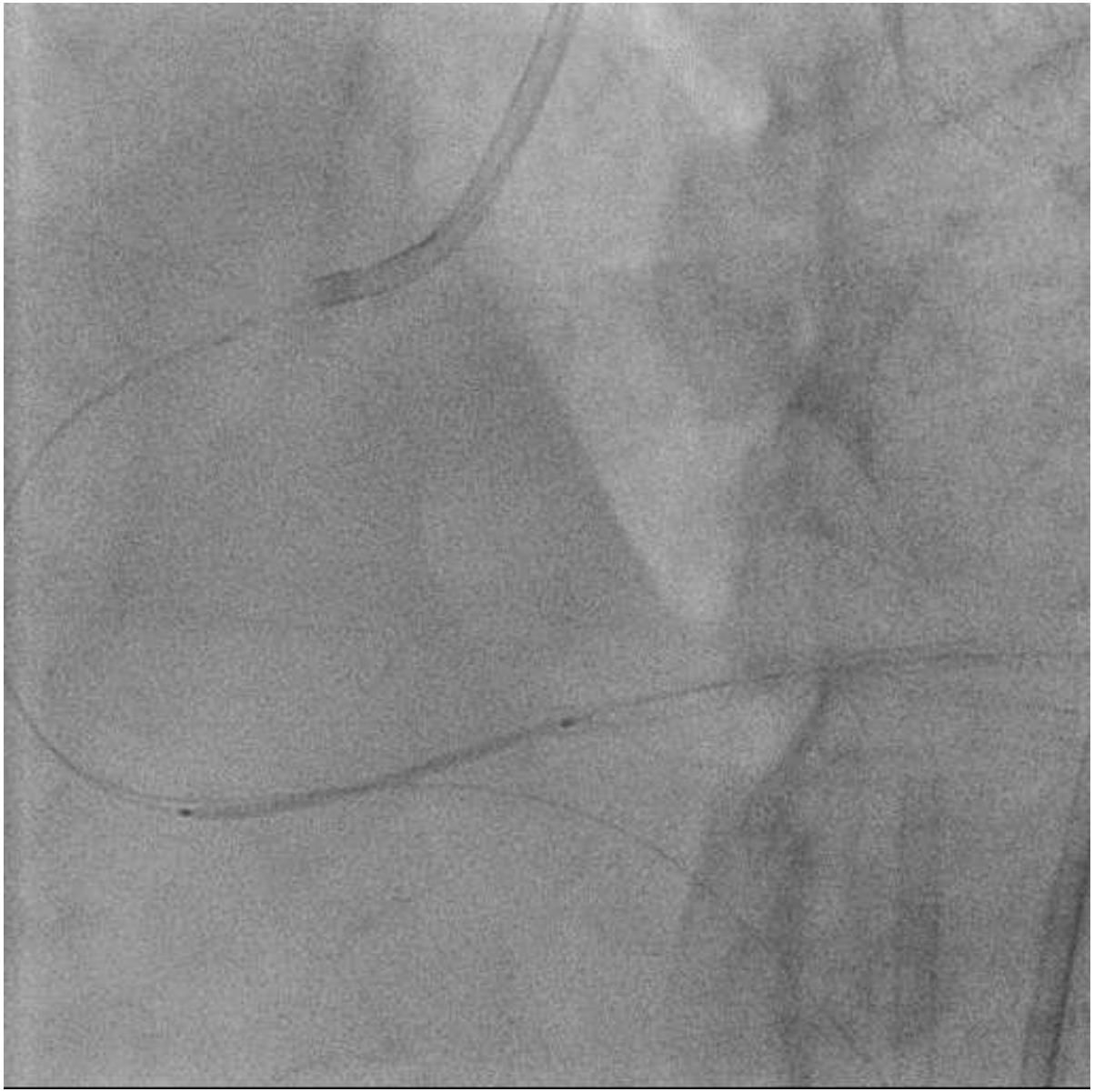
KBT for 4PD and 4PL was performed.

CAG after KBT showed diffuse lesion.



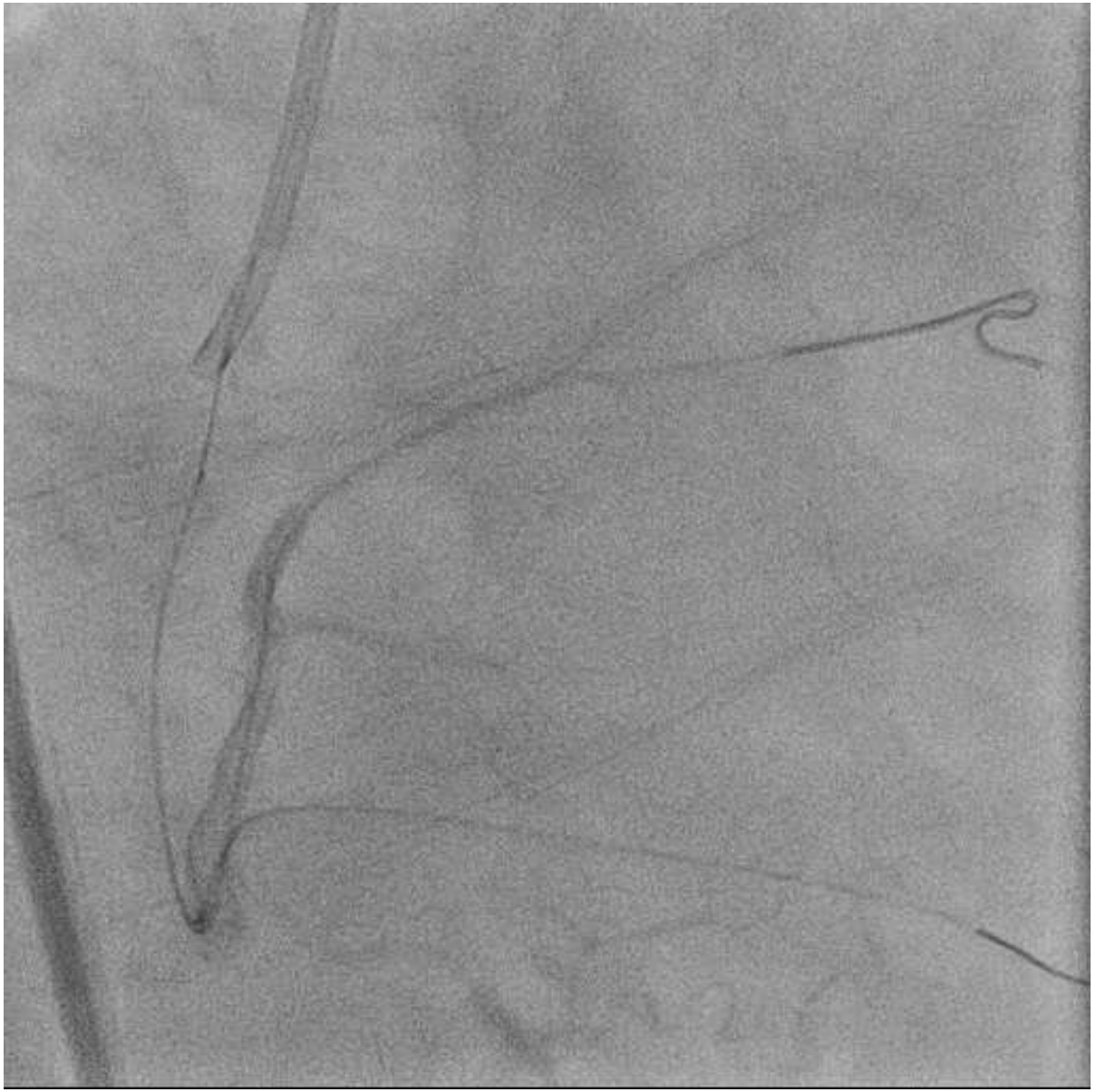
Ultimaster 2.25/38mm was used from distal 4PL.





There was a gap of vessel diameter between mid RCA and 4PL. Therefore, Ultimaster 3.0/33mm was used from mid RCA to 4PL.

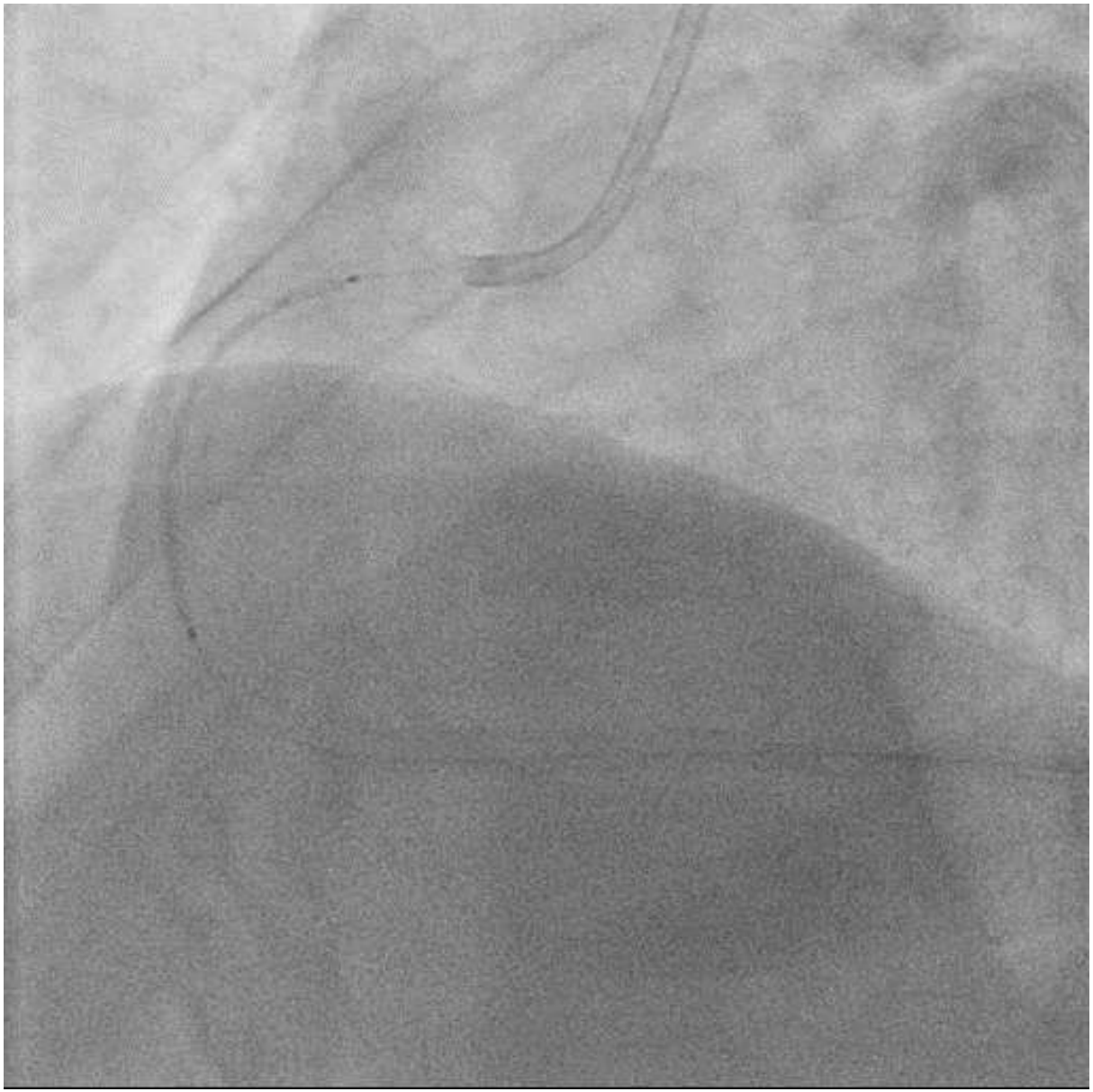
Ballooning with 4.0mm balloon was performed at mid RCA to bifurcation.

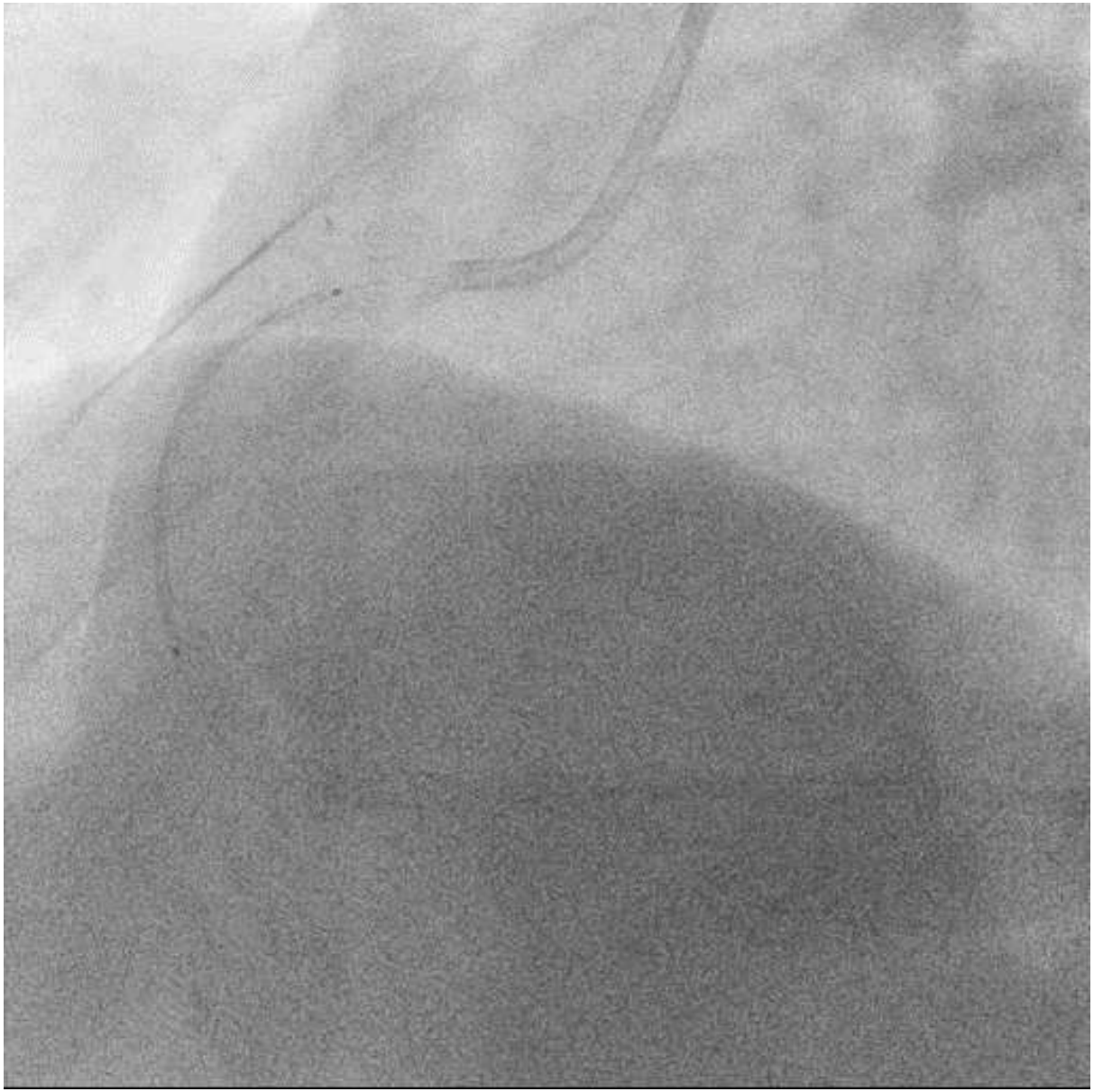


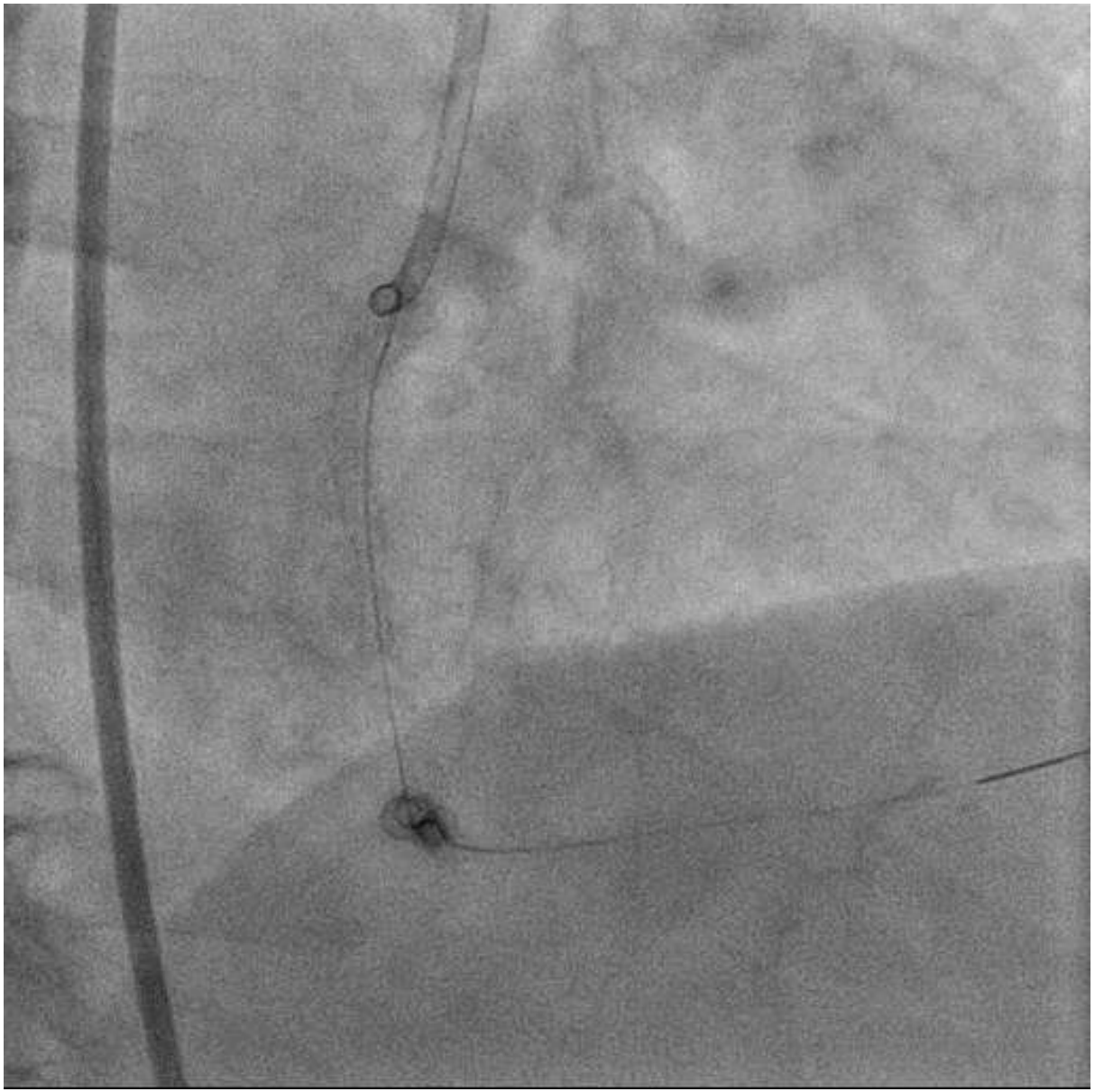
Good dilation could be achieved

Good dilation could be achieved

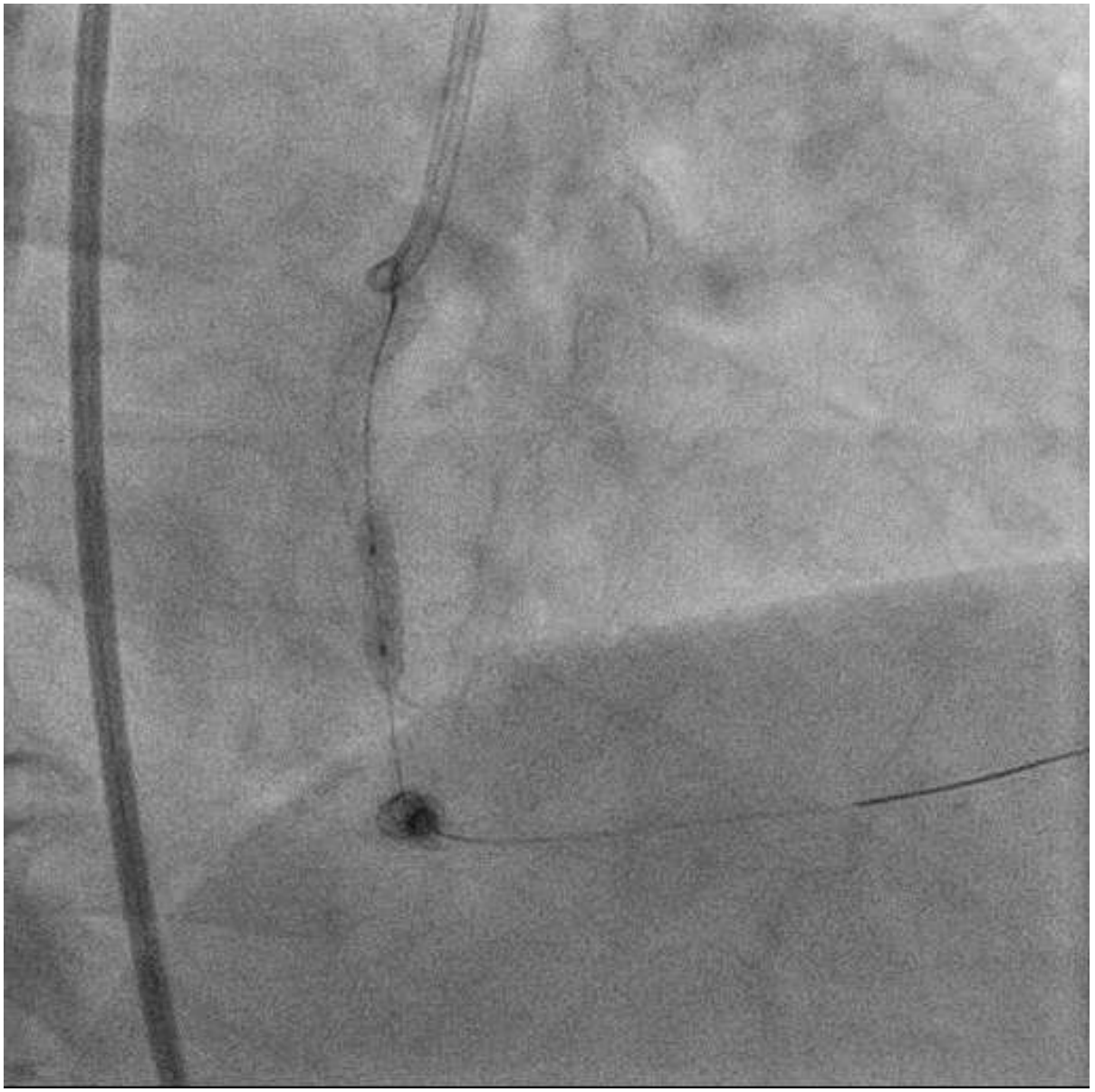
For proximal RCA, Ultimaster 4.0/38mm was used.



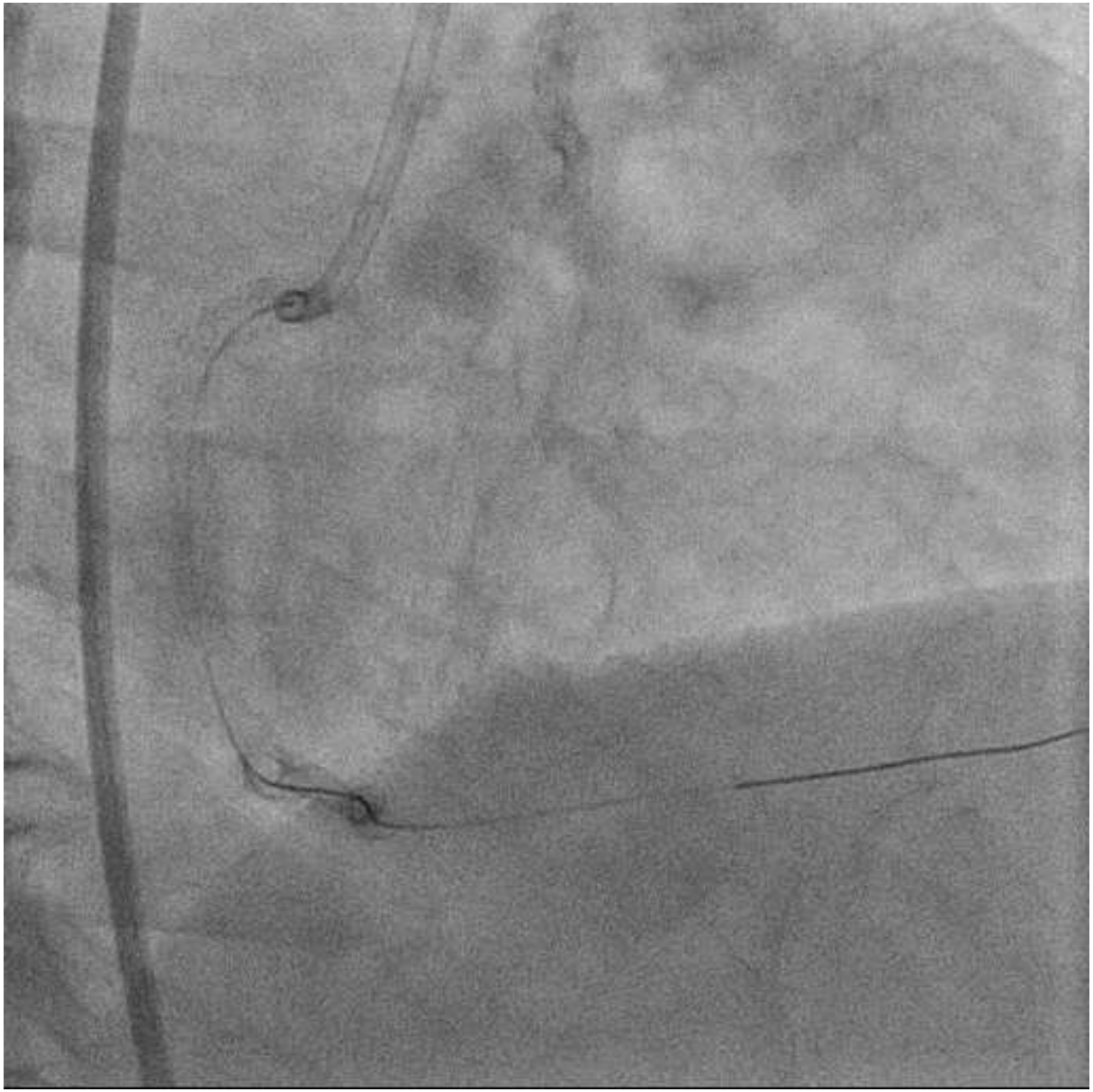




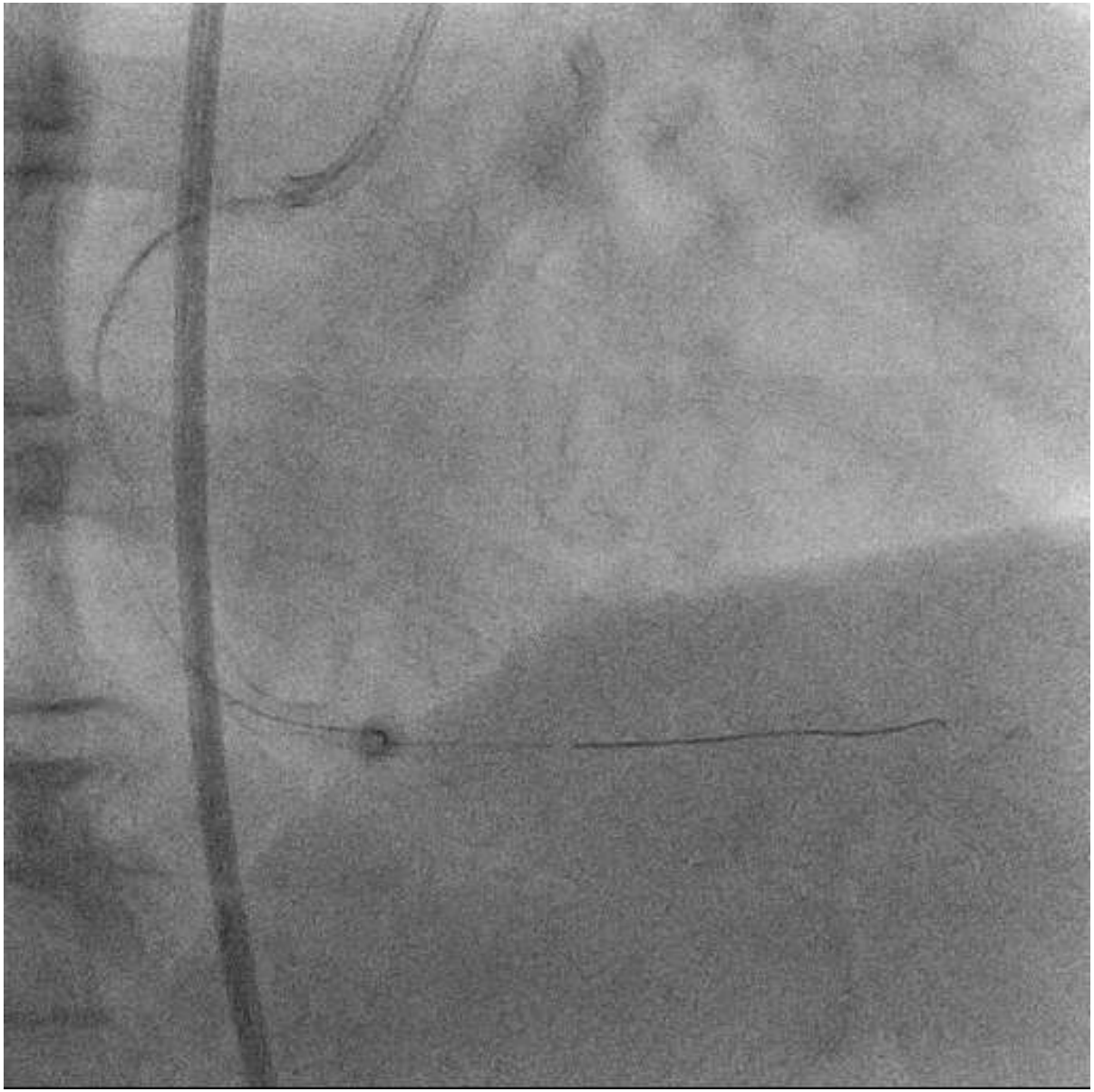
CAG showed stent expansion around RV branch was not good .



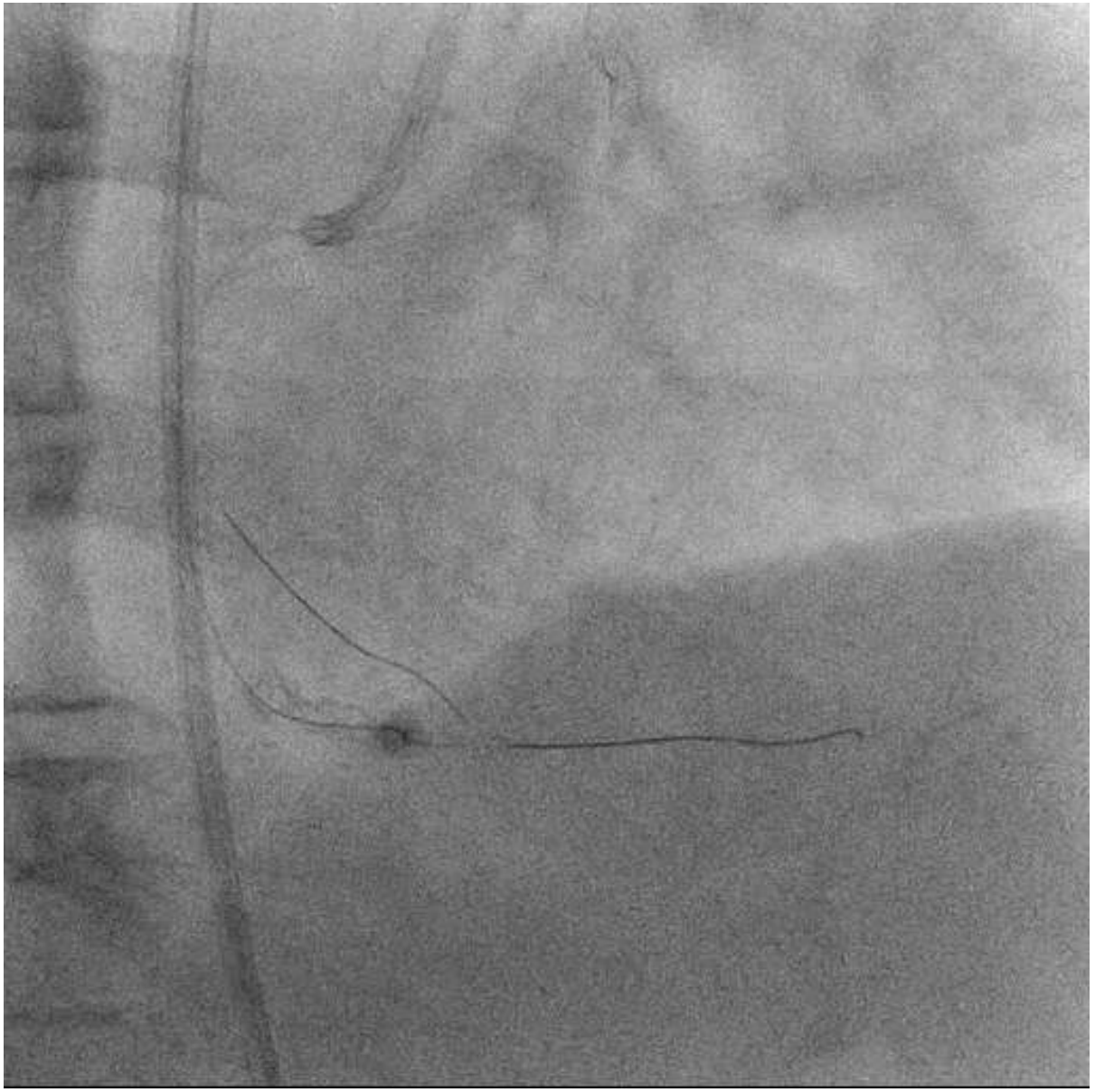
Post dilation with 4.0mm NC balloon was performed



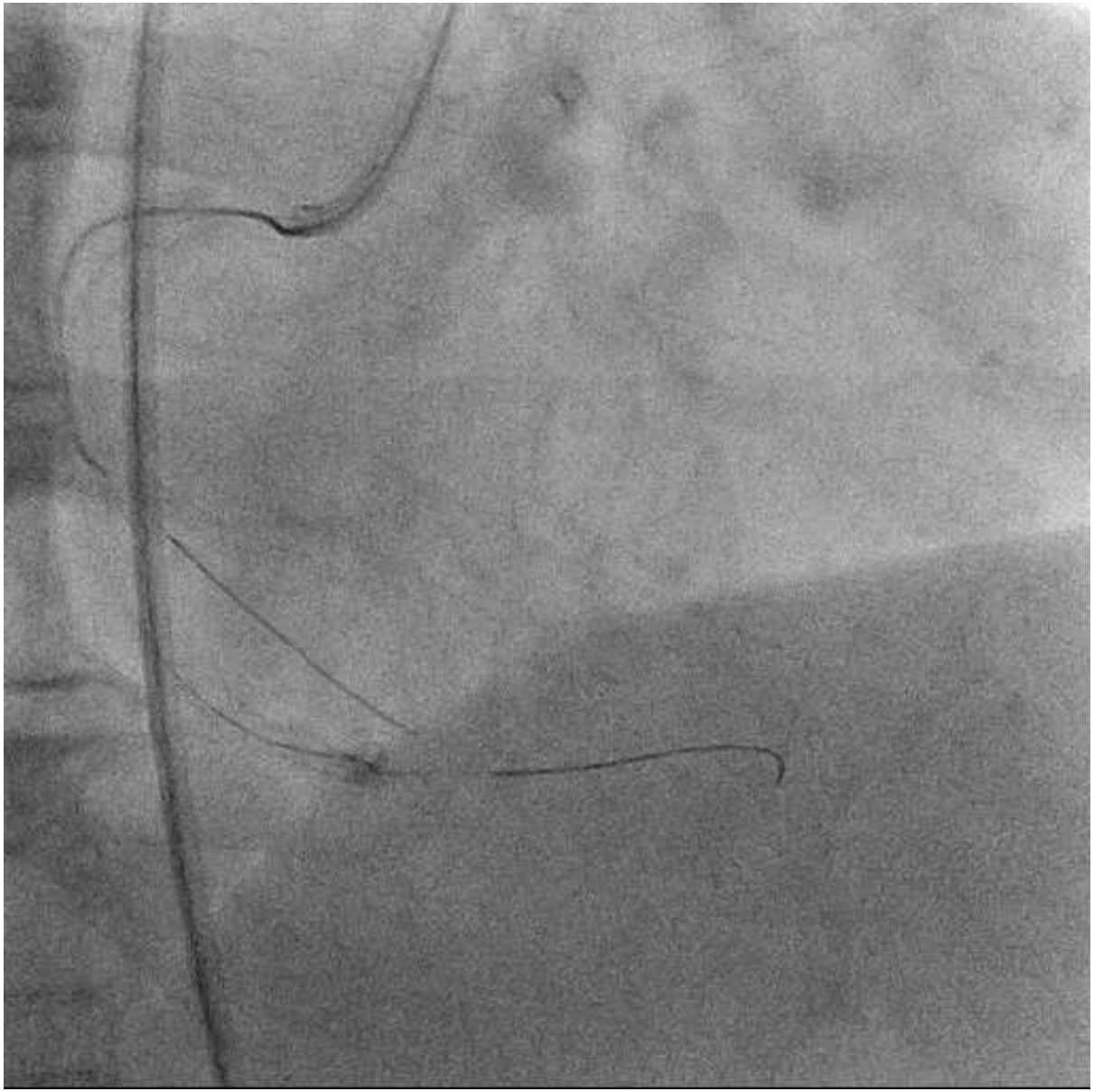
Occlusion of RV branch occurred.



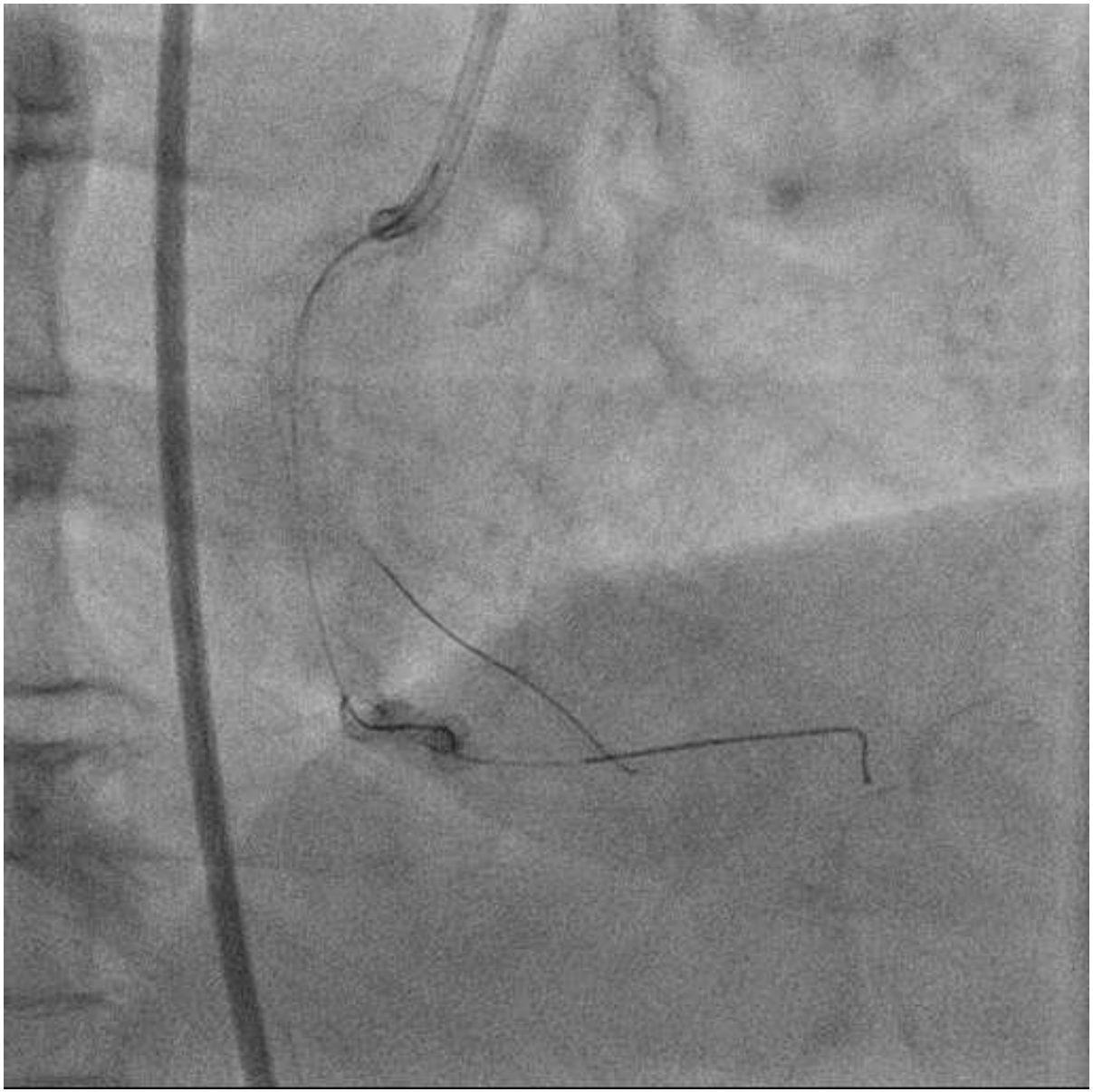
Wiring was not easy because of calcification, but Sion Black supported by DLC could be advanced into RV branch



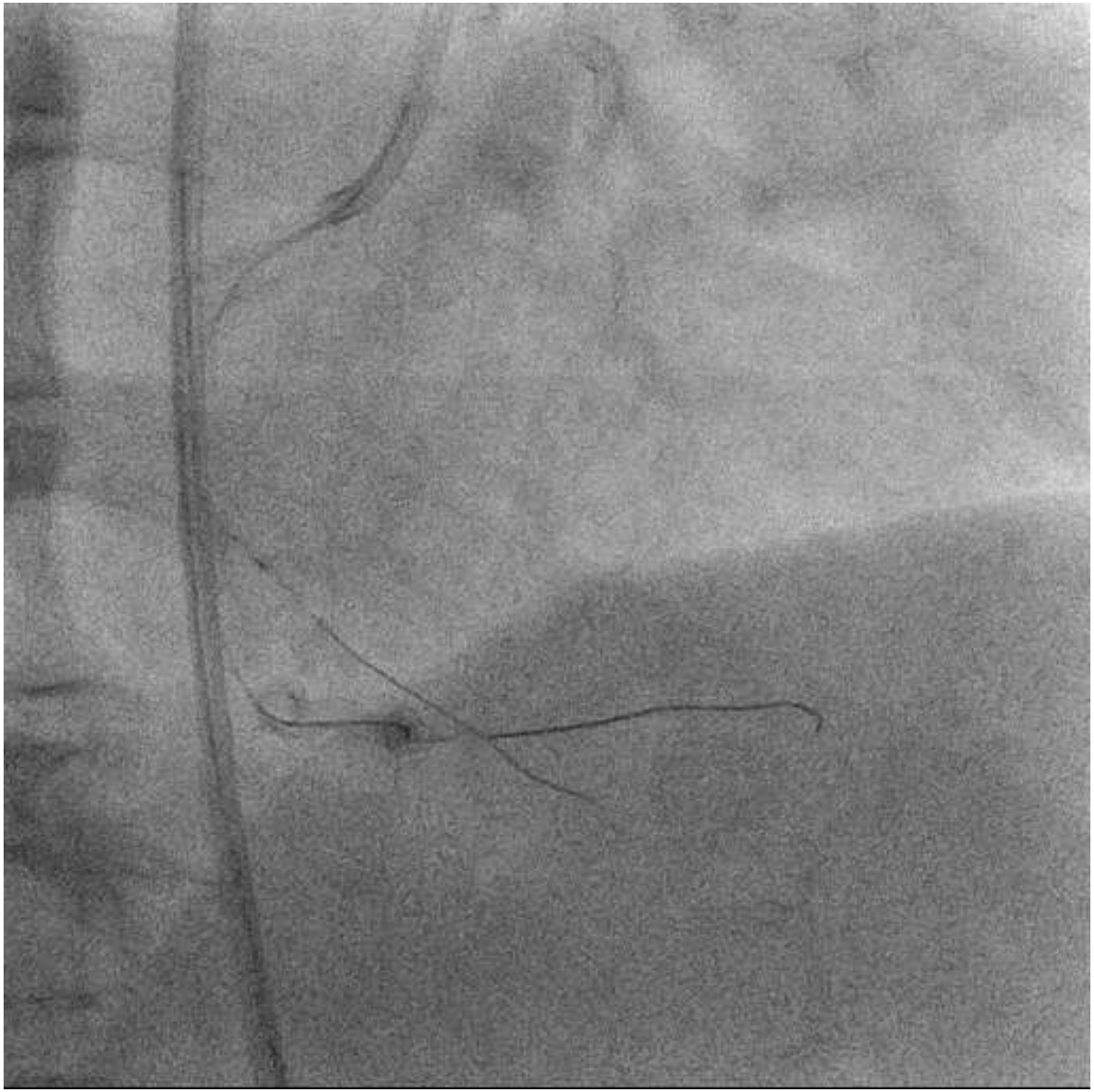
However Balloon and Finecross could not be advanced into RV branch



Finally, Corsair was used and could pass stent strut because of flexibility of its tip.

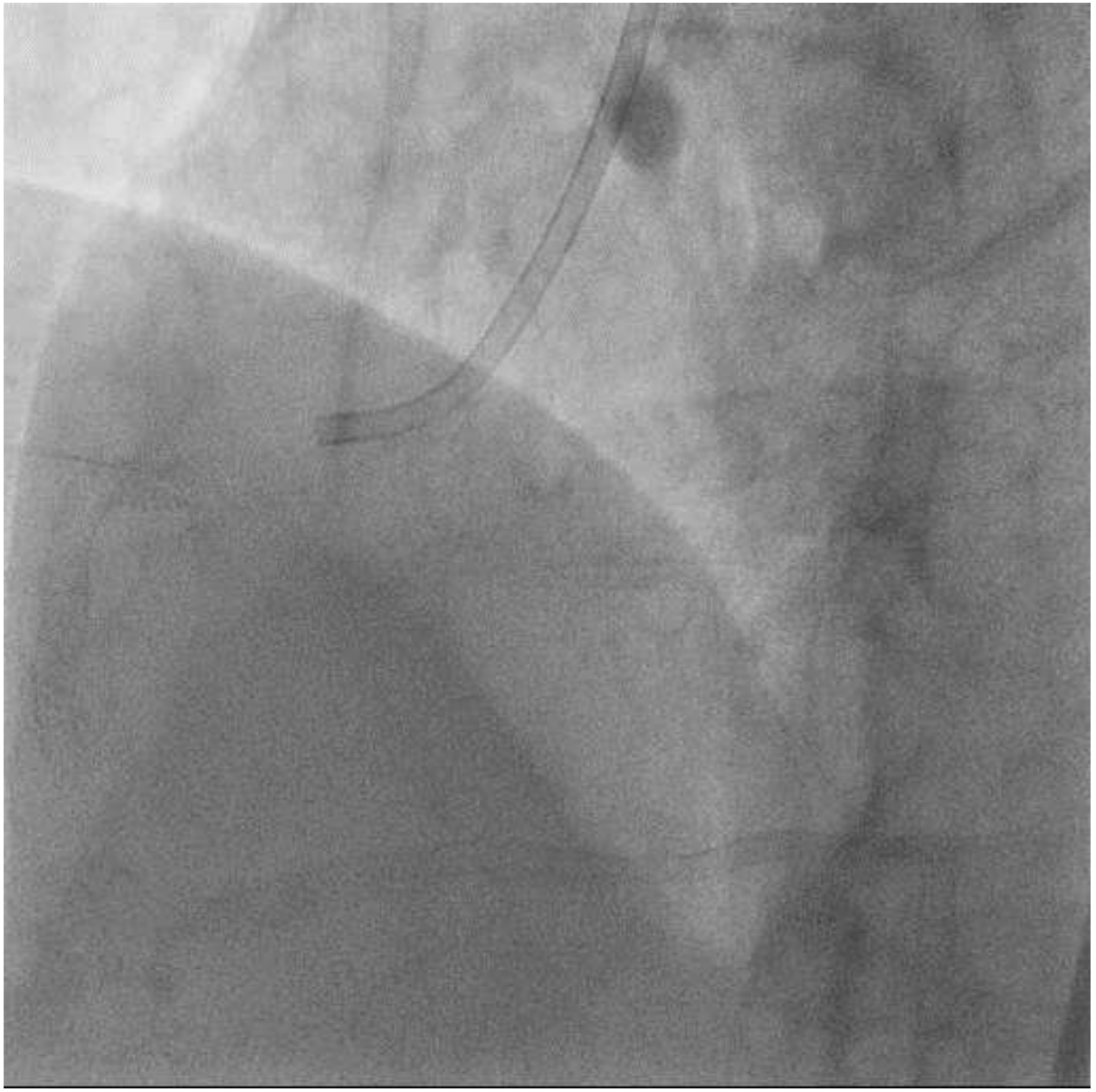


Recanalization of RV branch could be achieved.



Ballooning with 1.5mm balloon was performed.

Final CAG showed good results including RV branch



Summary of Case2

- Target lesion was reattempted CTO lesion at distal RCA involving bifurcation of PL and PD
- Double lumen catheter and anchor balloon technique was used to get better back up support.
- Escalation and de-escalation between XT-R and GaiaNext1 was useful for this CTO lesion.
- After GW was advanced into PD, IVUS was used to identify entry point of PL.
- Ultimaster was chosen
  - Deliverability
  - Gap of diameter between mid part and distal part
  - Easy access and protection of side branch access

Take home message

When you treat complex CTO lesion…

May Ultimaster be with you !