



The ideal CTO to get start

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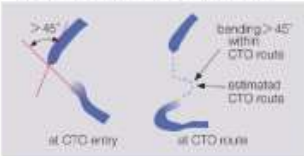
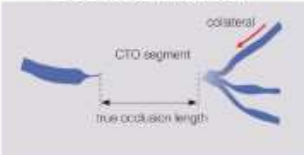


Osaka Medical College

Japan

J-CTO SCORE SHEET

Version 1.0

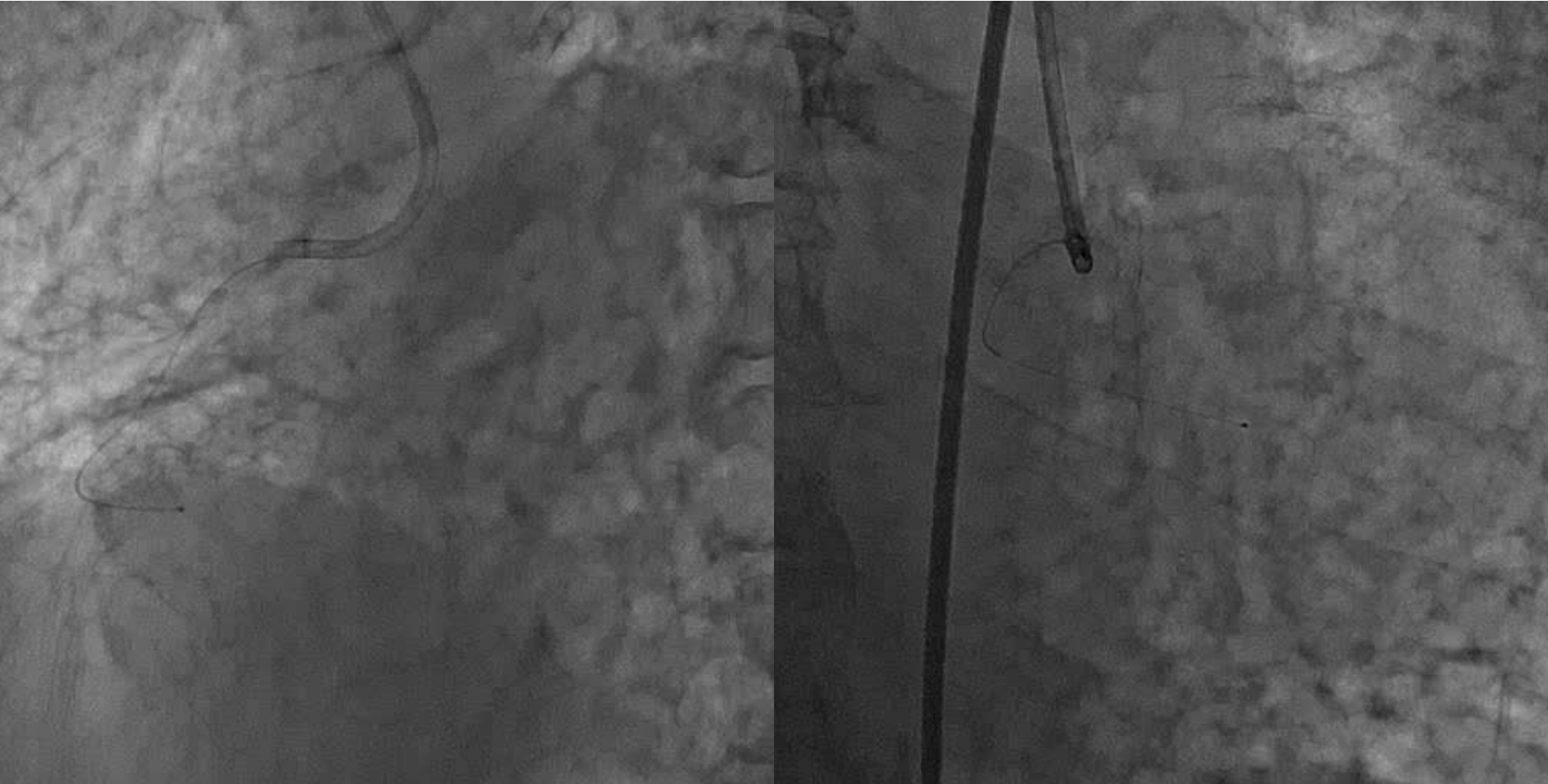
| Variables and definitions | |
|--|---|
| <p>Tapered</p>  | <p>Blunt</p>  <p>Entry with any tapered tip or dimple indicating direction of true lumen is categorized as "tapered".</p> |
| <p>Entry shape</p> <input type="checkbox"/> Tapered (0) <input type="checkbox"/> Blunt (1) | |
| point | |
| <p>Calcification</p>  | <p>Regardless of severity, 1 point is assigned if any evident calcification is detected within the CTO segment.</p> |
| <p>Calcification</p> <input type="checkbox"/> Absence (0) <input type="checkbox"/> Presence (1) | |
| point | |
| <p>Bending >45degrees</p>  | <p>One point is assigned if bending > 45 degrees is detected within the CTO segment. Any tortuosity separated from the CTO segment is excluded from this assessment.</p> |
| <p>Bending >45°</p> <input type="checkbox"/> Absence (0) <input type="checkbox"/> Presence (1) | |
| point | |
| <p>Occlusion length</p>  | <p>Using good collateral images, try to measure "true" distance of occlusion, which tends to be shorter than the first impression.</p> |
| <p>Occl.Length</p> <input type="checkbox"/> <20mm (0) <input type="checkbox"/> ≥20mm (1) | |
| point | |
| <p>Re-try lesion</p> <p>Is this Re-try (2nd attempt) lesion ? (previously attempted but failed)</p> | |
| <p>Re-try lesion</p> <input type="checkbox"/> No (0) <input type="checkbox"/> Yes (1) | |
| point | |
| <p>Category of difficulty (total point)</p> <input type="checkbox"/> easy (0) <input type="checkbox"/> Intermediate (1) <input type="checkbox"/> difficult (2) <input type="checkbox"/> very difficult (≥3) | |
| <p>Total</p> <div style="background-color: #ccc; width: 40px; height: 20px; display: inline-block;"></div> points | |

Baseline angiogram



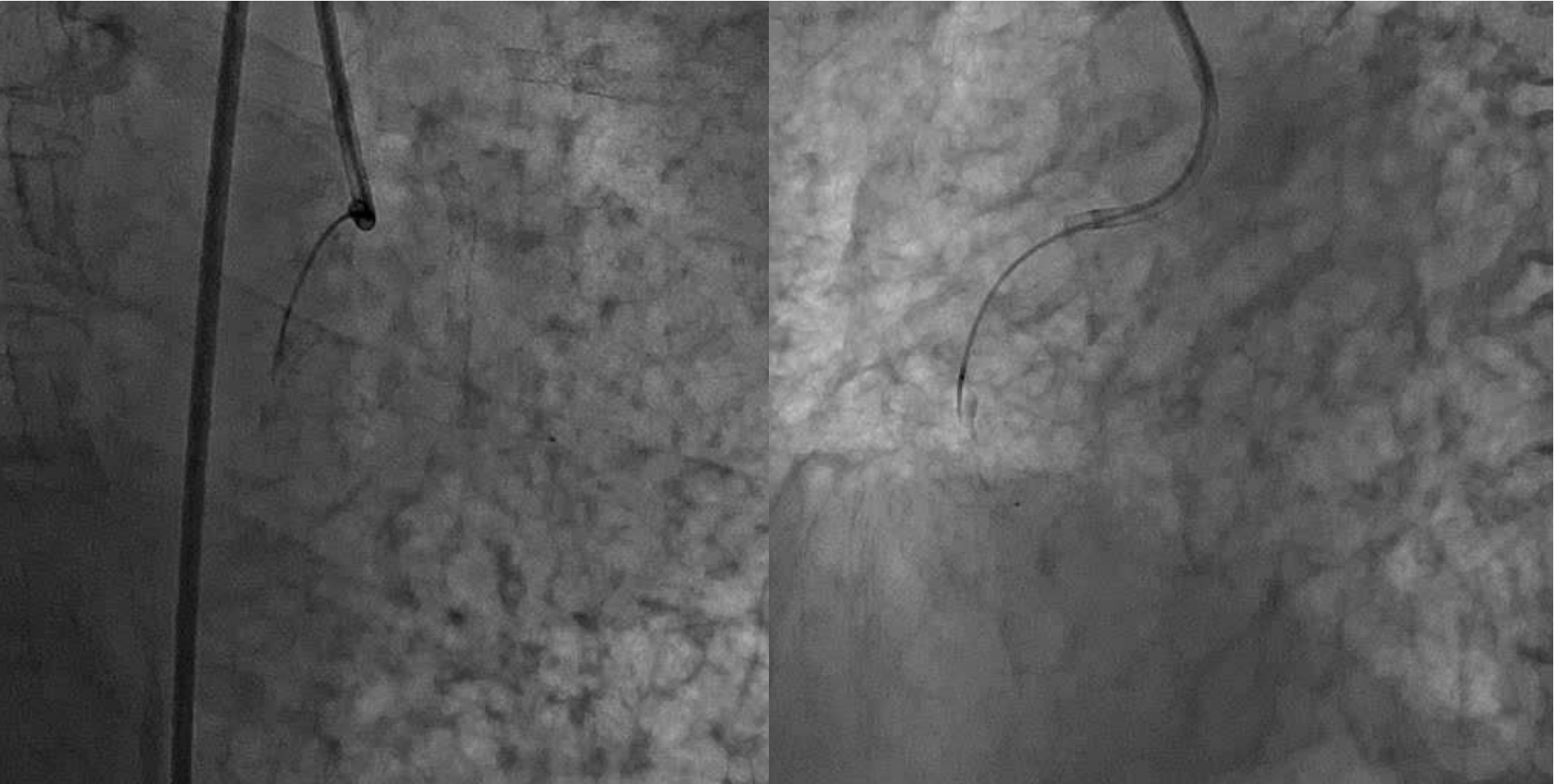
Mid RCA CTO. No angiographically clear calcium.

Angiograms via collateral



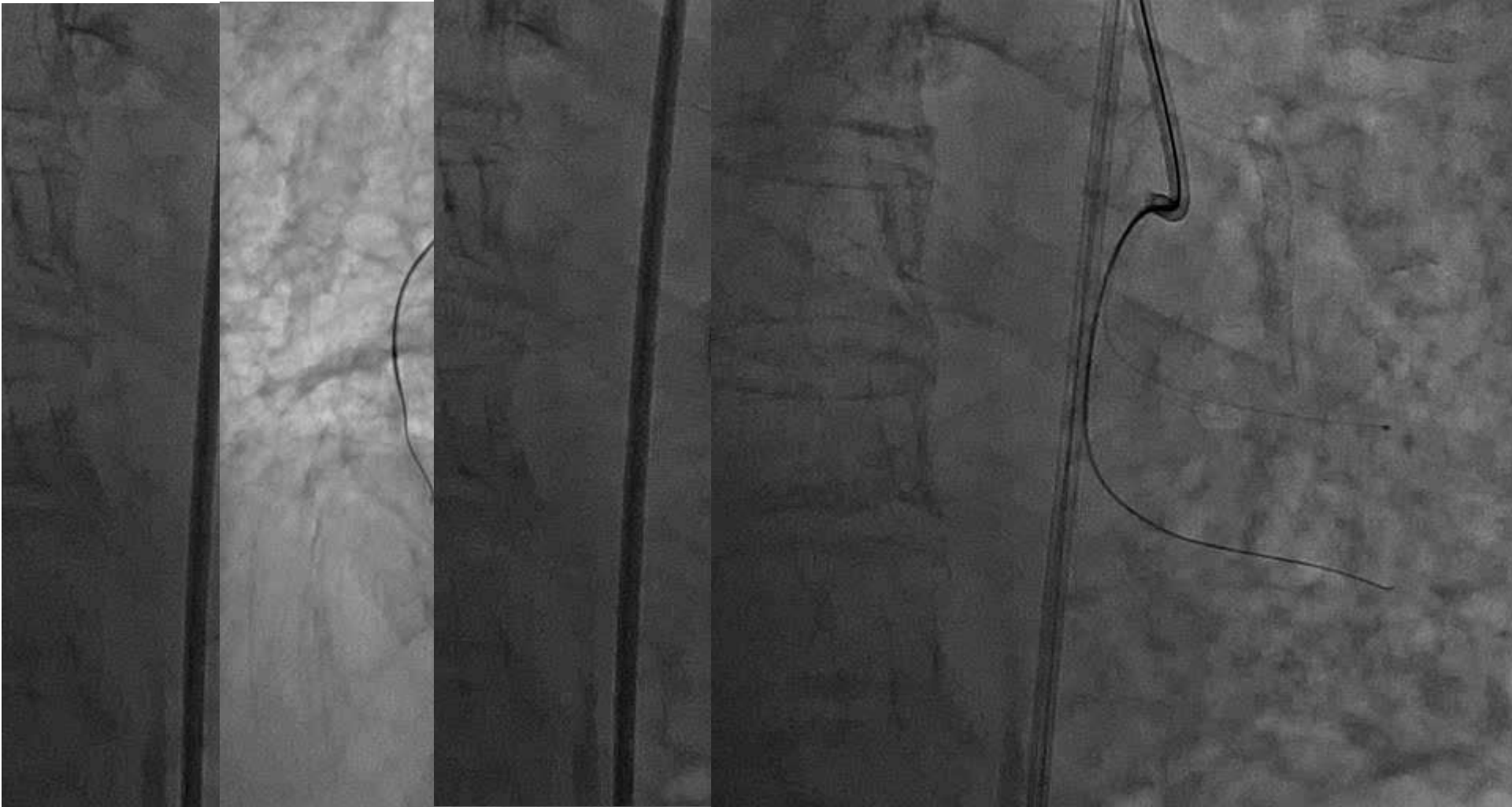
Distal RCA was supplied from ipsilateral RV branches. Estimated occluded length was 15mm.

Angiograms via micro catheter



Angiograms via micro catheter revealed the entrance was tapered type occlusion

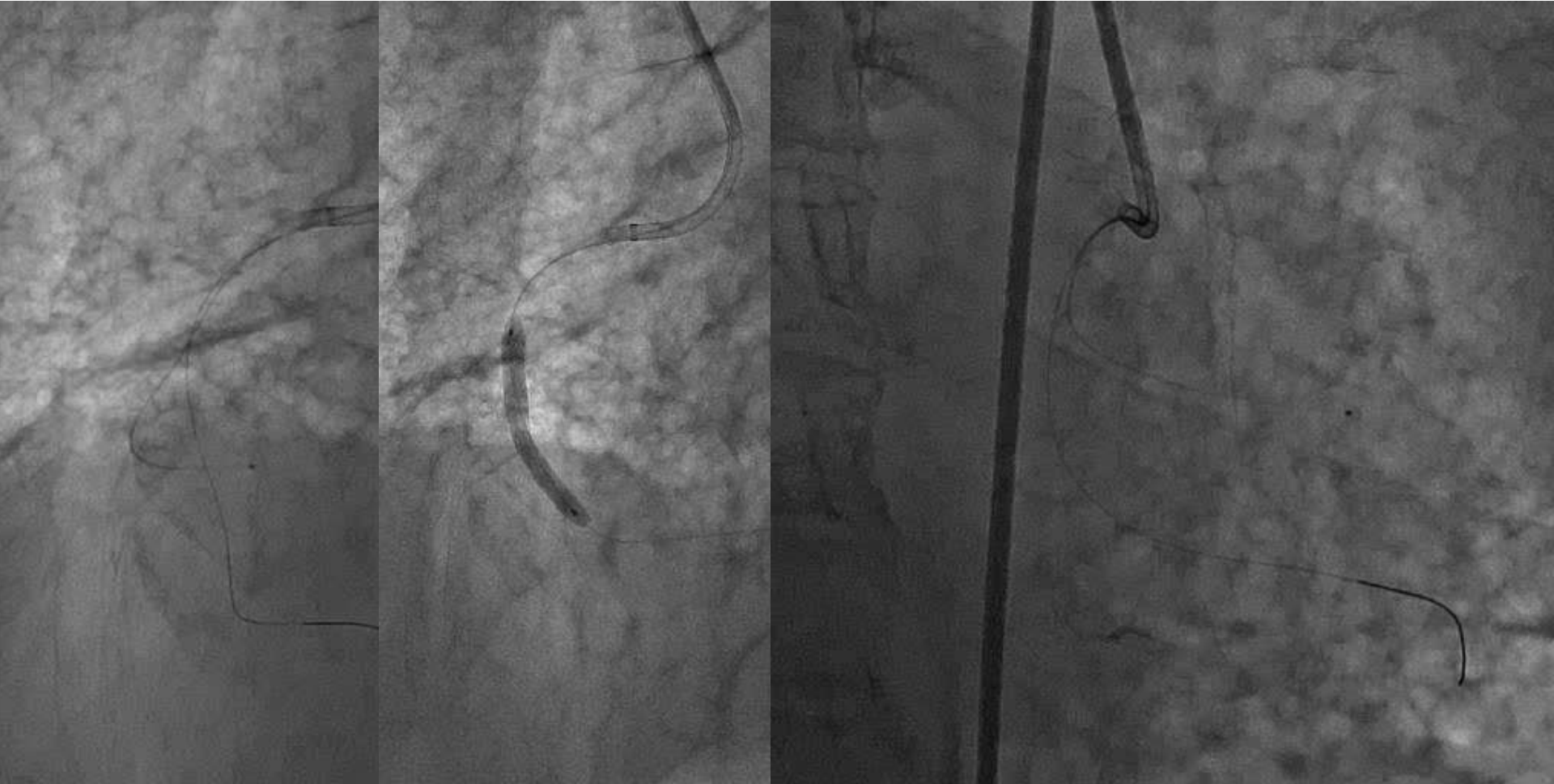
Antegrade procedures



GAIA first wire successfully advanced toward the side branch

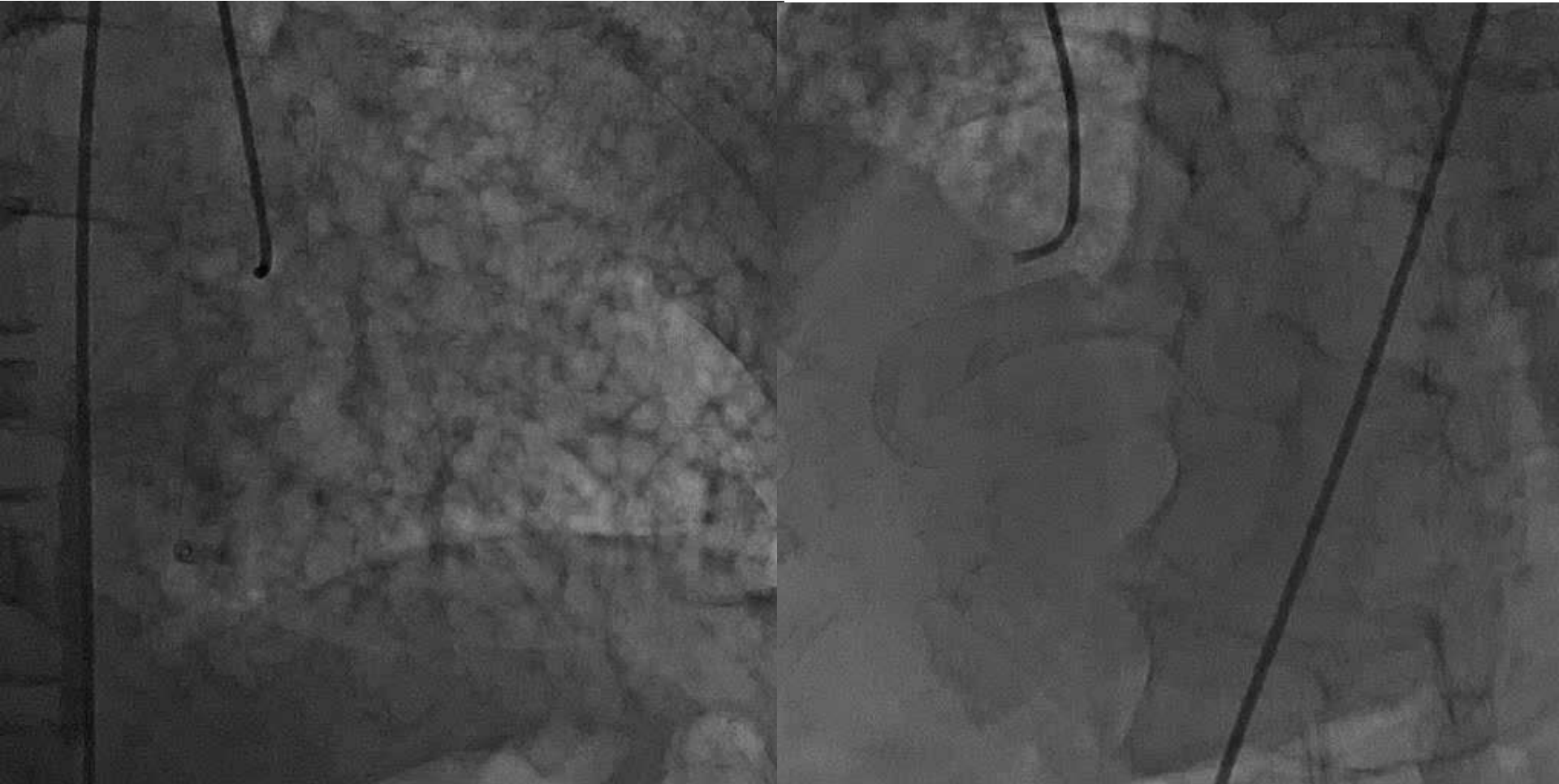


Antegrade procedures

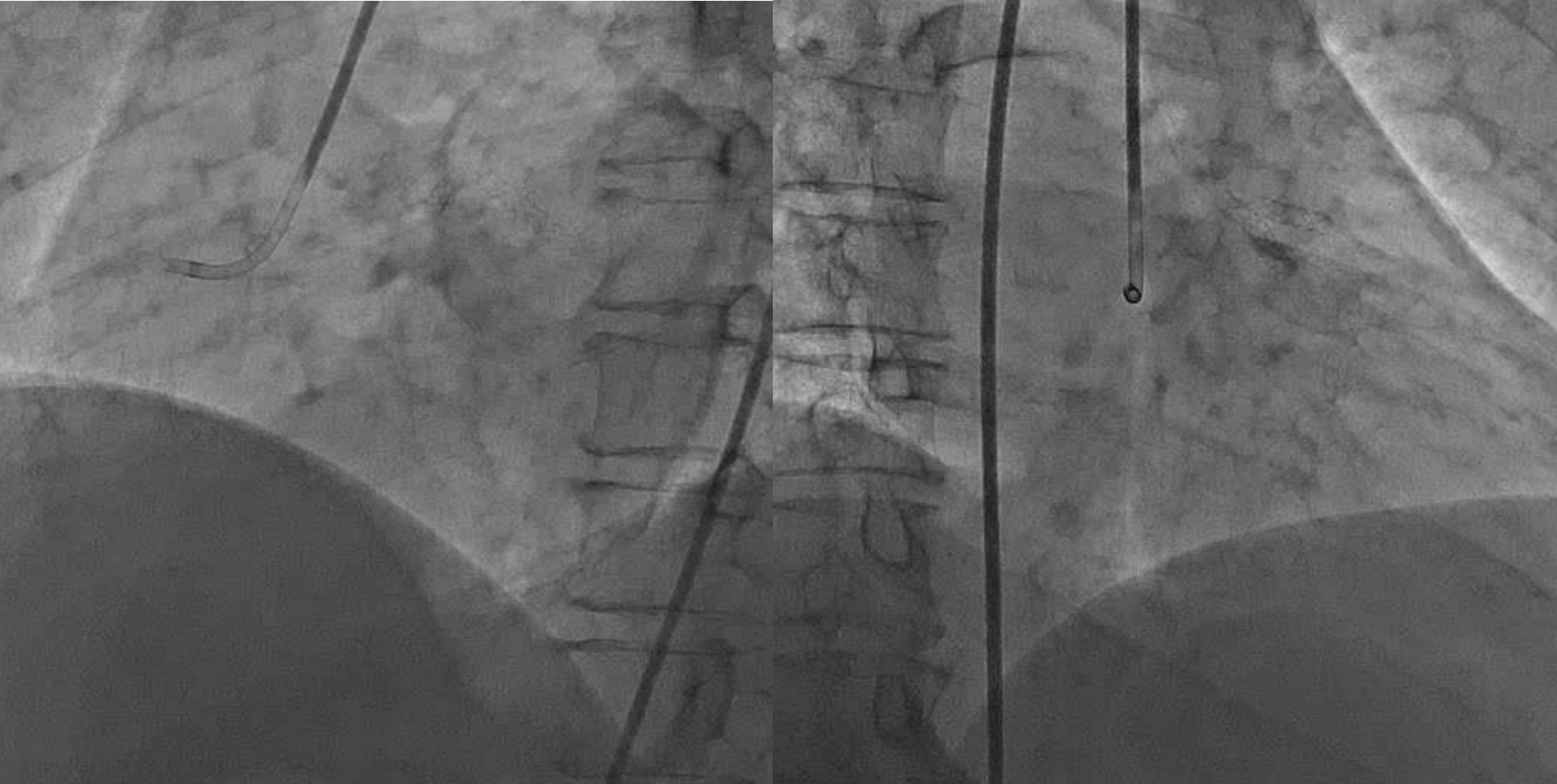




Final angiograms

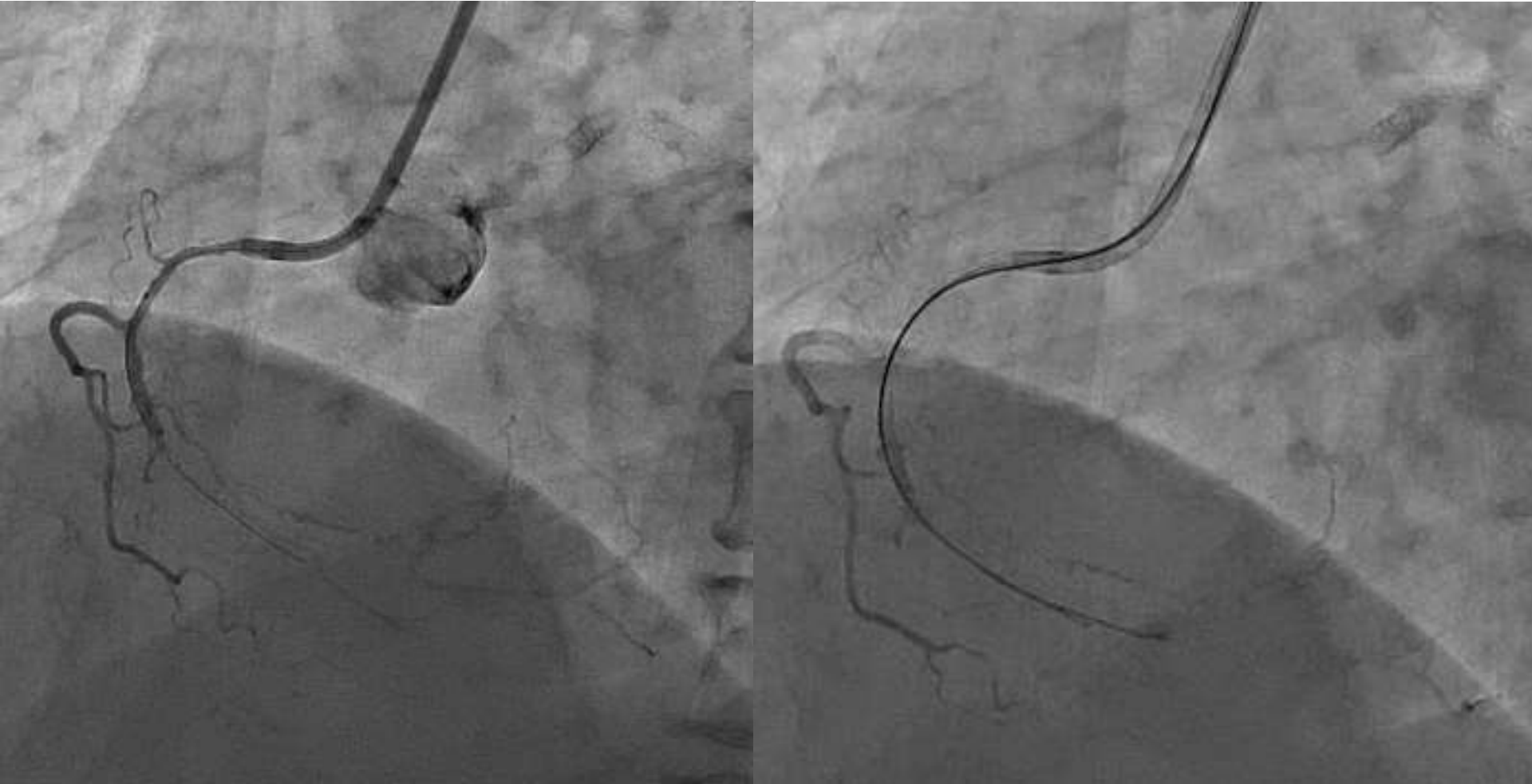


Baseline angiograms



Mid RCA was totally occluded similar to case 1. CTO entrance was tapered. Distal RCA was supplied from ipsilateral RV branches and septal perforators. Occluded length was 10mm. J-CTO score was 0 point.

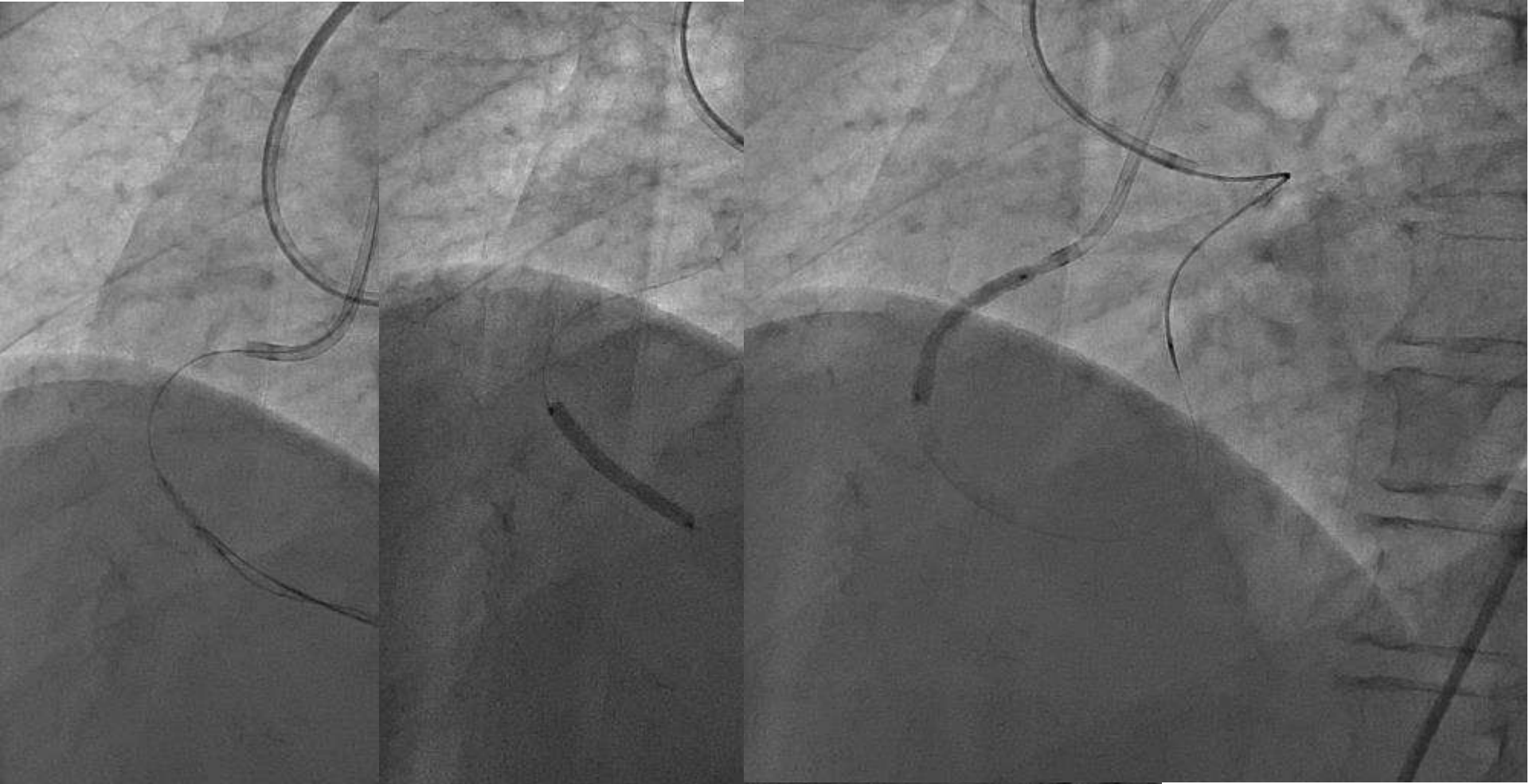
Antegrade wiring



Hydrophilic polymer jacket guide wire produced sub intimal space.

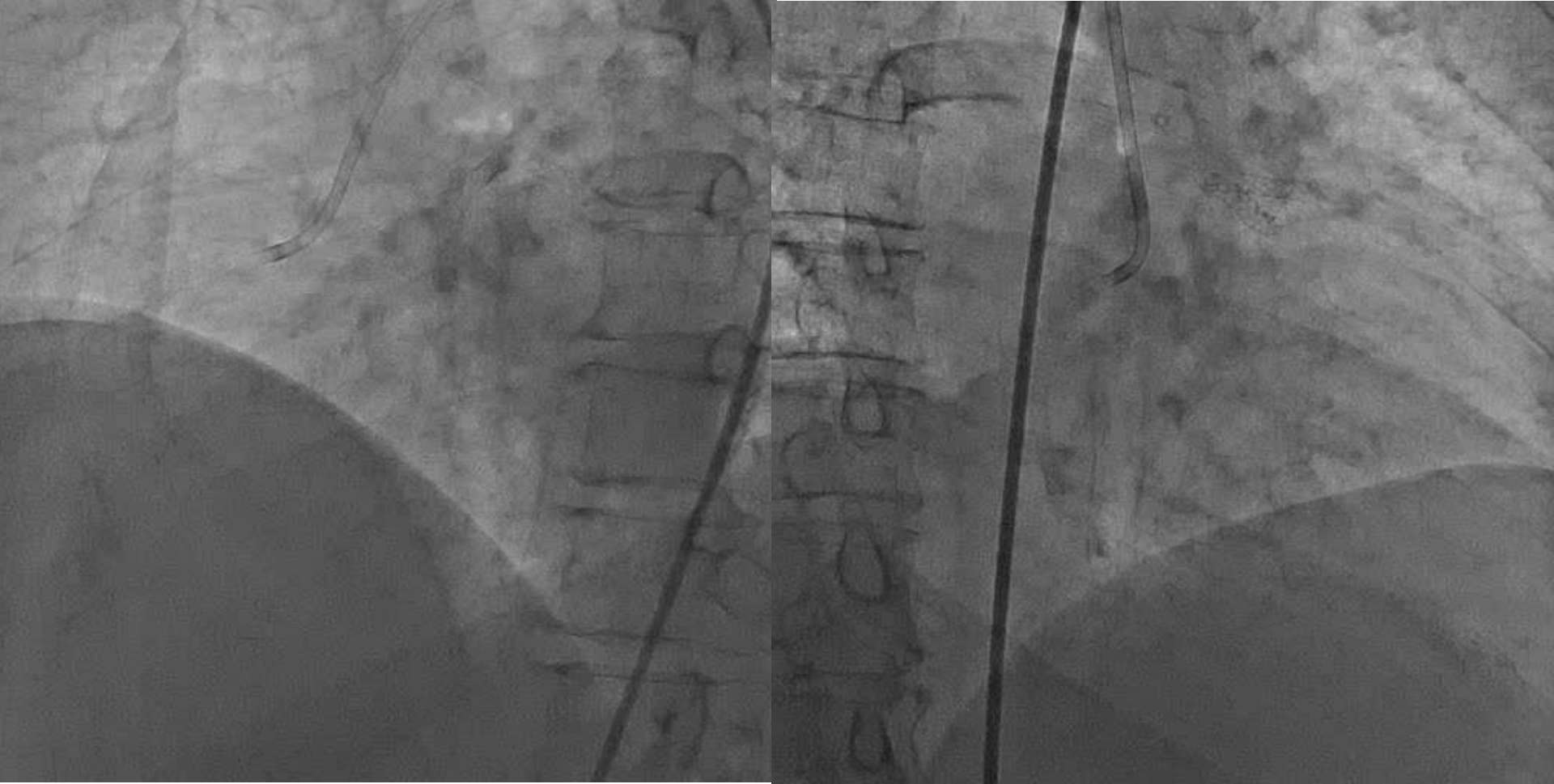


Retrograde approach



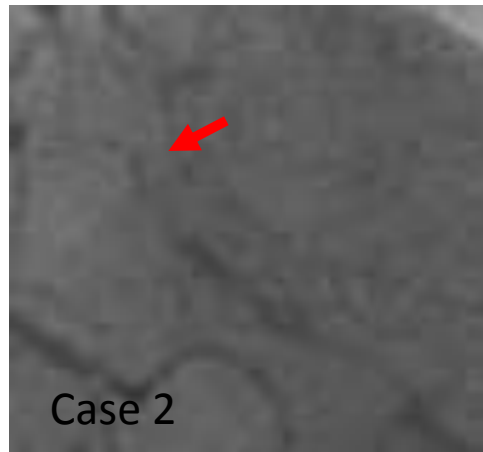


Final angiograms



Summary

- ✓ Both Case 1 and Case 2 had the similar J-CTO score, 0 point. However, the 2 cases were followed a different results.
- ✓ Difference between Case 1 and Case 2 was the only distal true lumen reference.



- ✓ Distal reference was clear in case 1, however it was unclear in case 2.



Conclusion

Although the J-CTO score is useful to determine the difficulty for CTO PCI procedure, however there is some differences between the cases.

The important factor is whether the distal target would be clearly open, therefore, the ideal CTO to get start is the lesion of clear distal target.