IVUS-guided CTO procedure of the LCX

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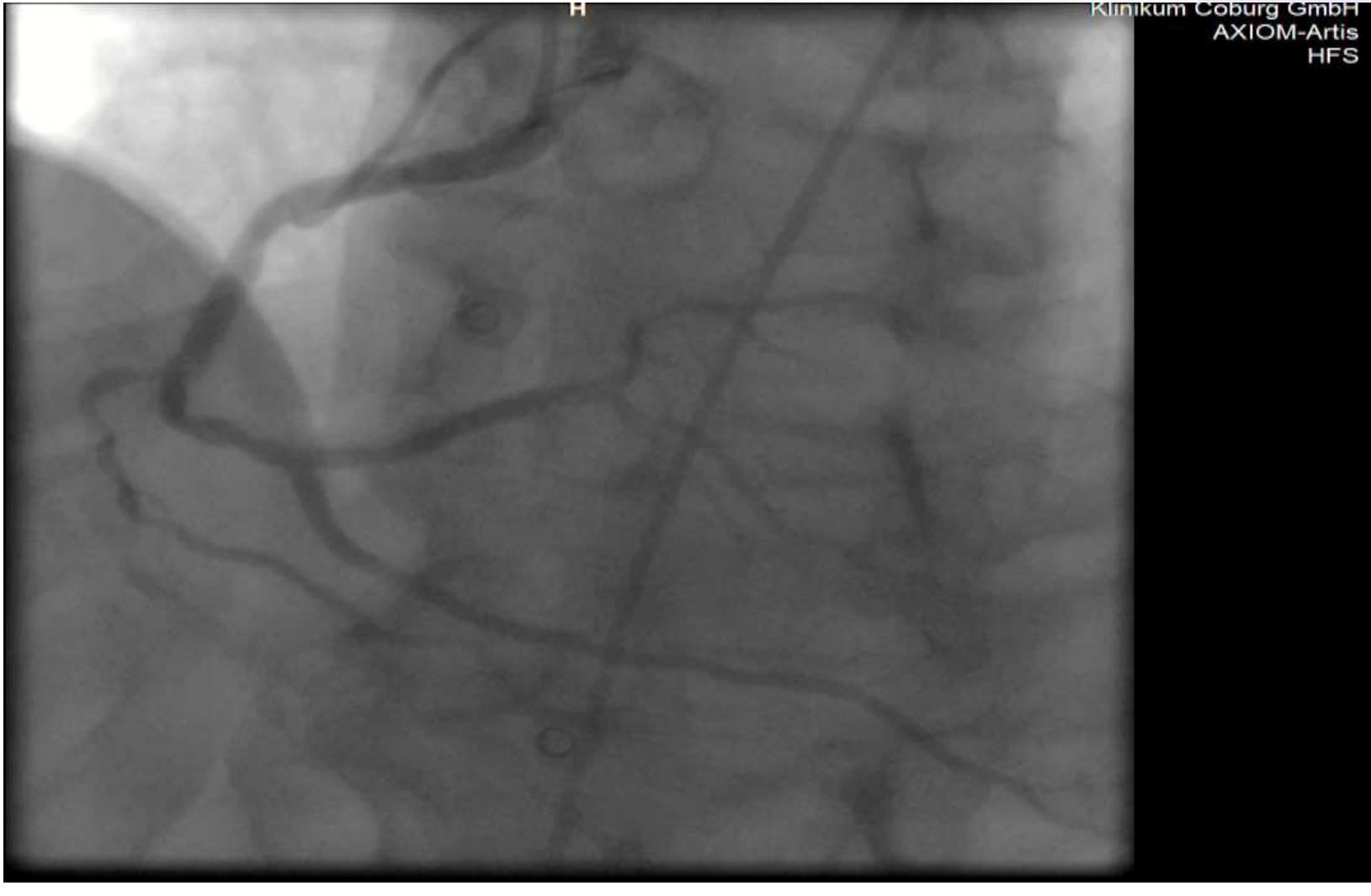
- Coburg-Klinik Germany

Presentation

A Patient 64years old former smoker presented to us because of instabile Angina pectoris after unsuccesful CTO procedur 2 Weeks ago.

The Patient had PCI and DES-Implantation of LAD, LCX and RCA 2014.

CVRF: aHT, Smoker, Dyslipidemie , OSA with CPAP-Therapy.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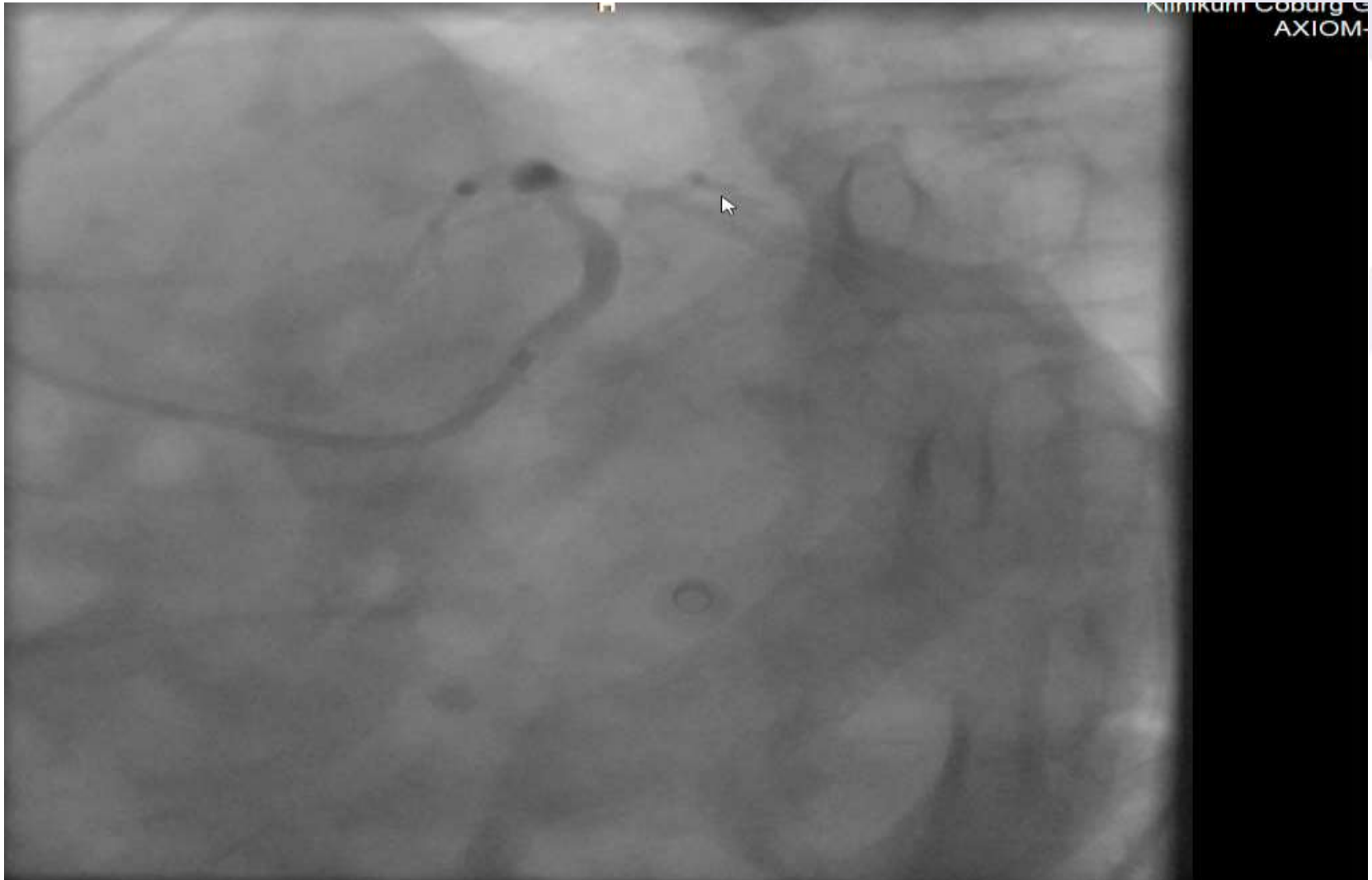
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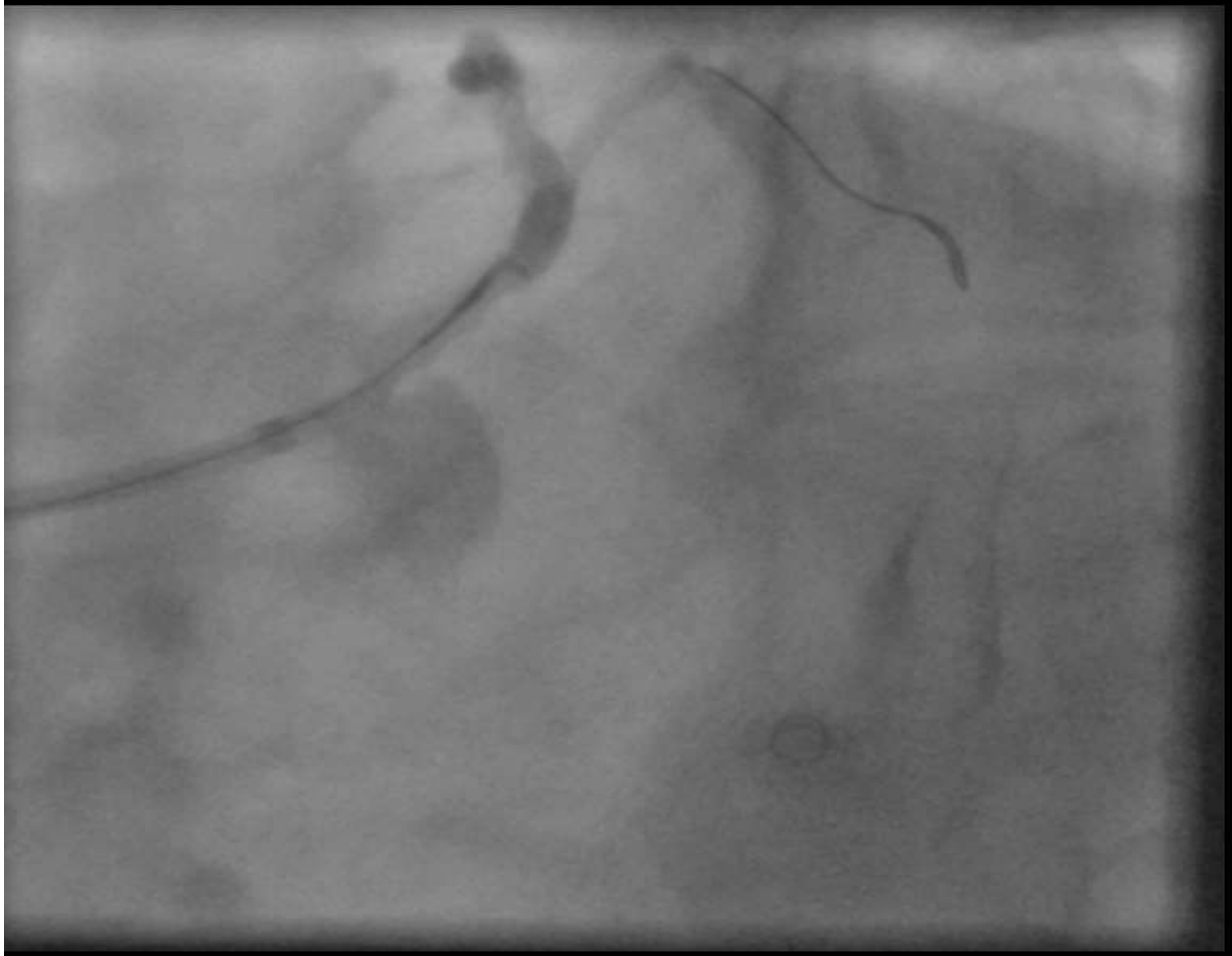

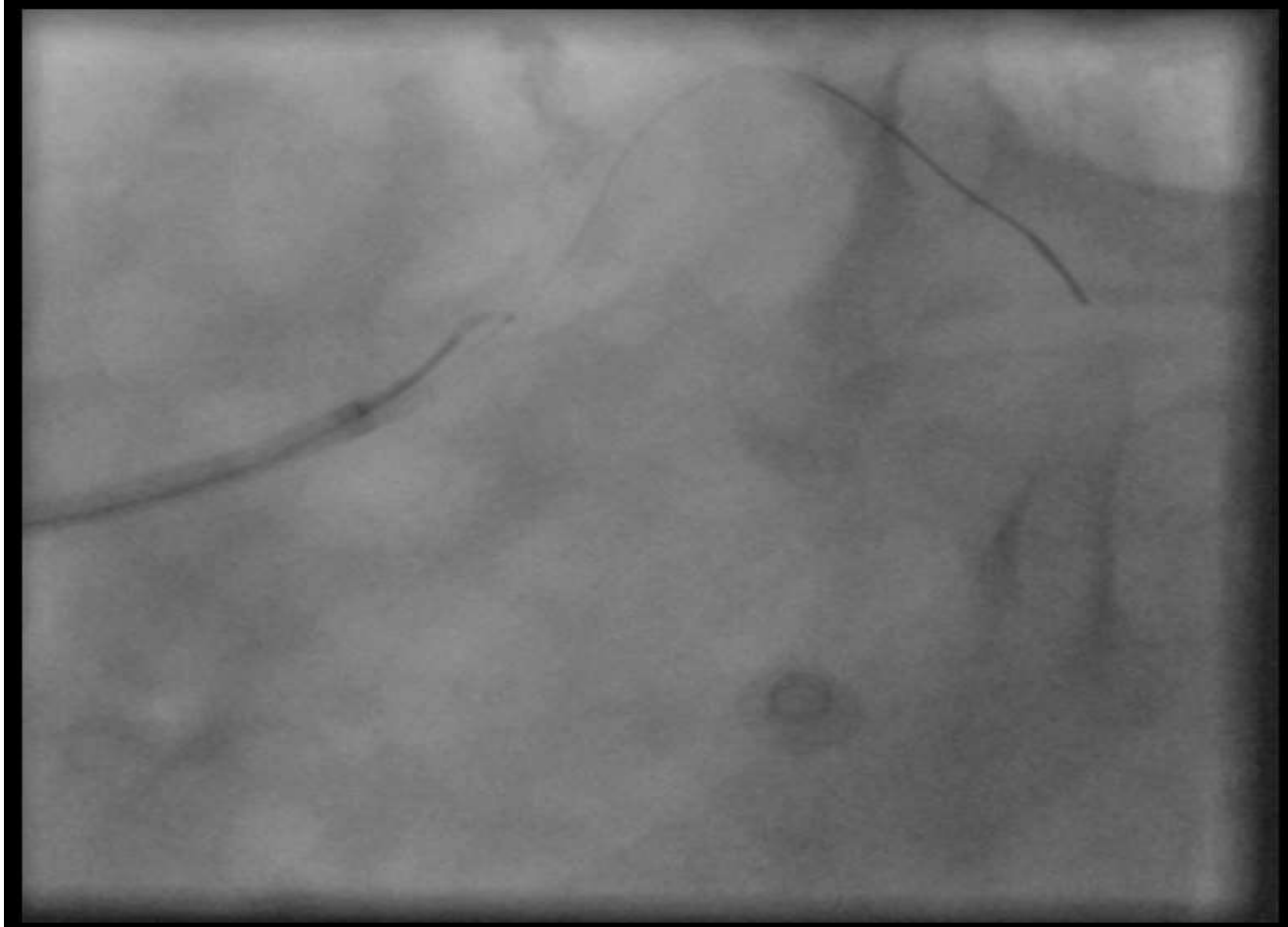

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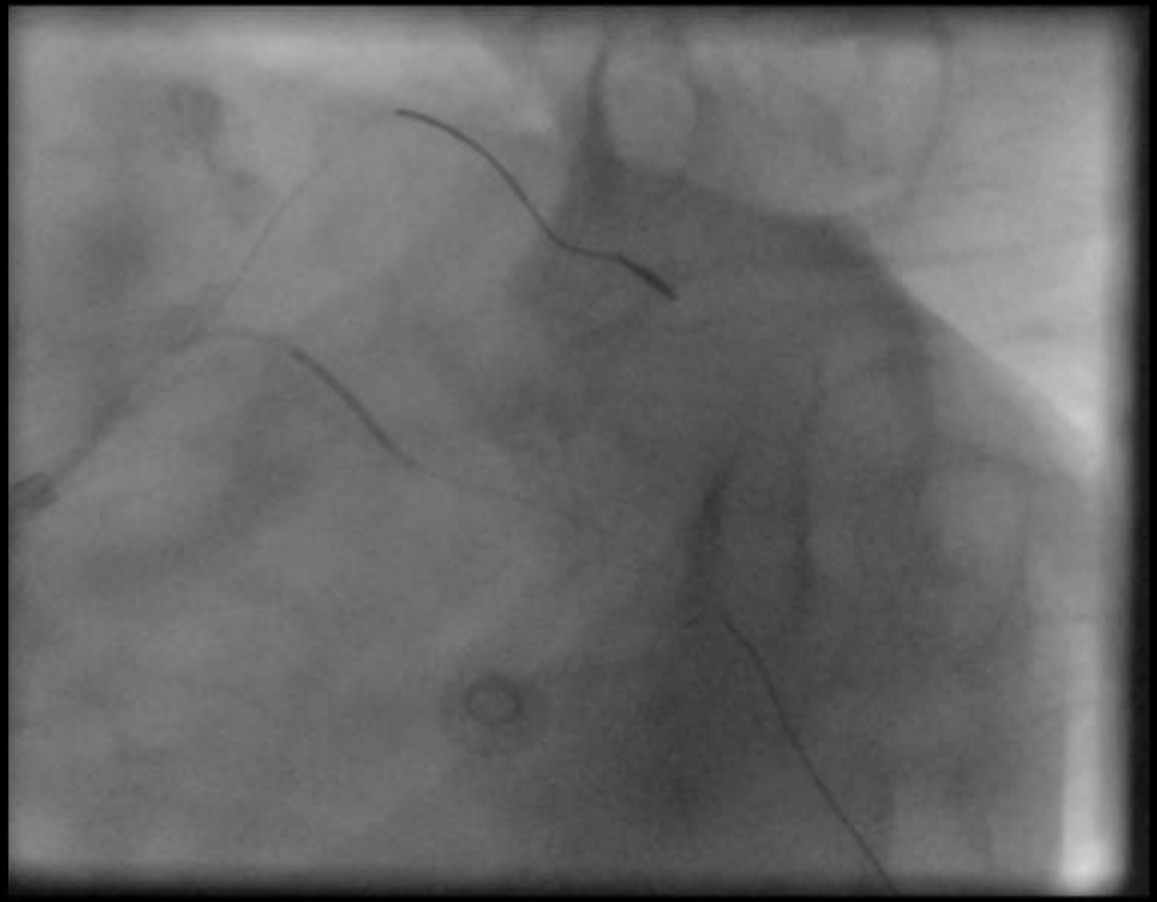

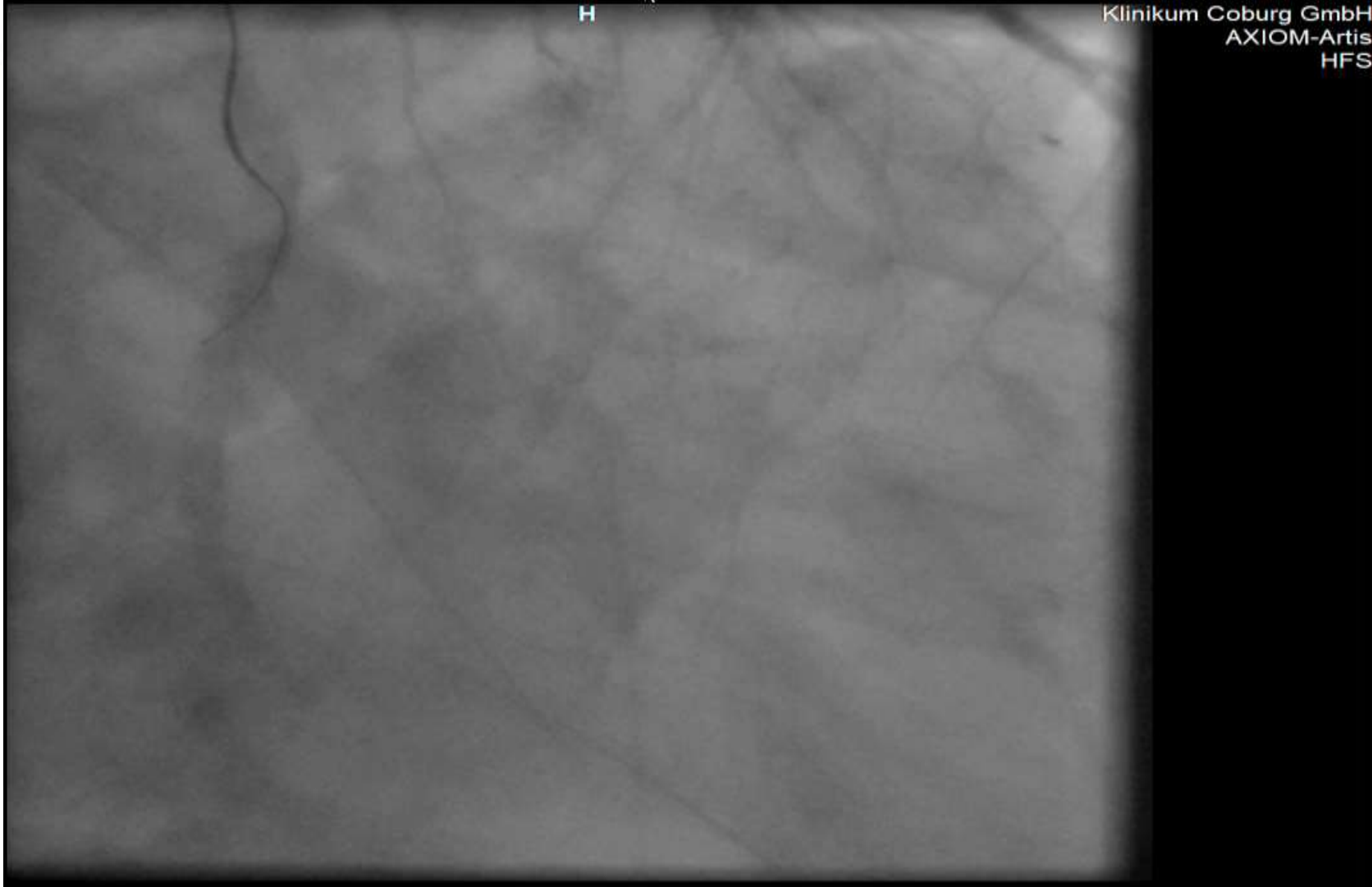
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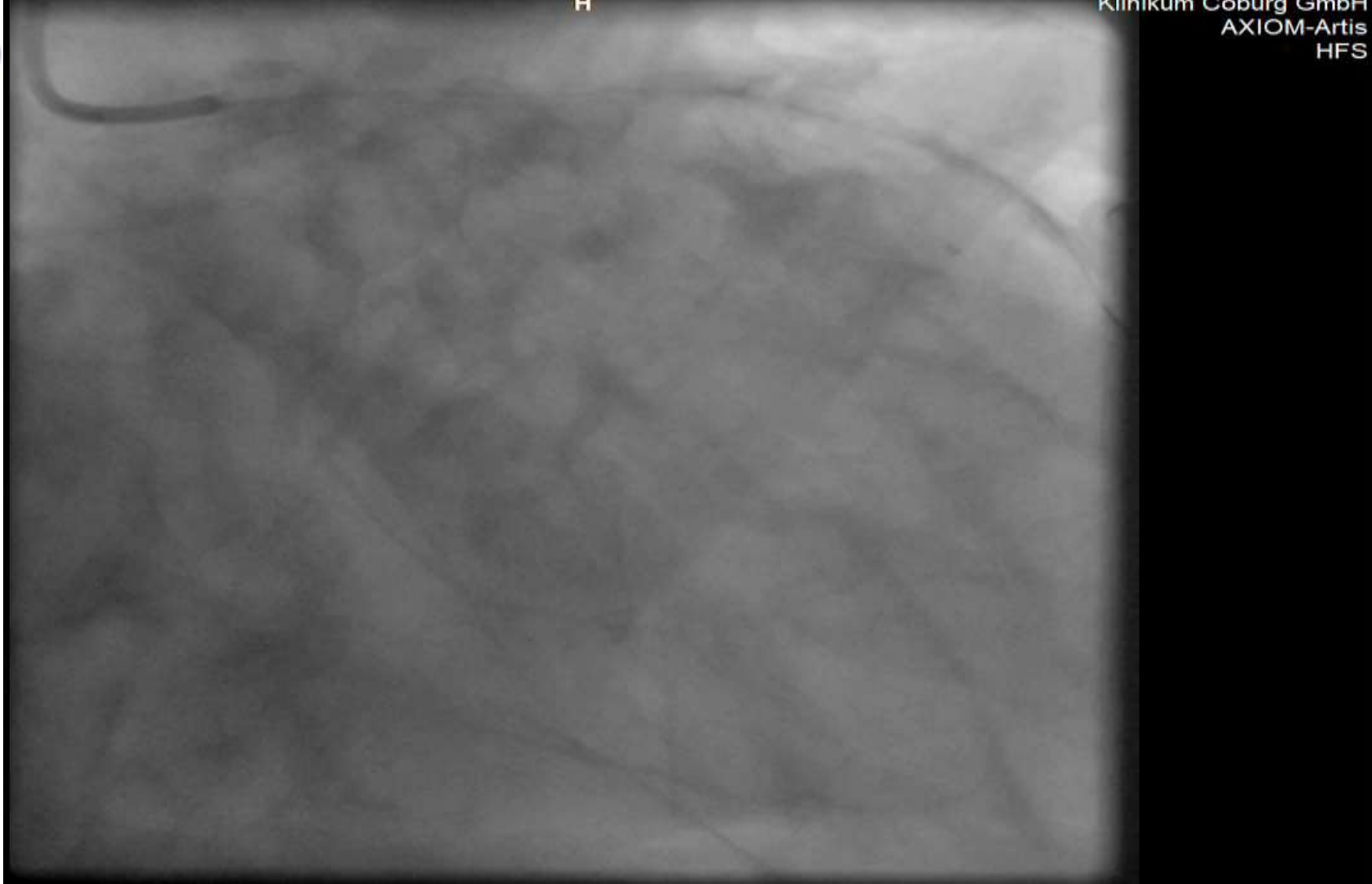
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- The Patient with J-Score 4
- LCX with ostial occlusion and ipsilateral epicardial collaterals via diagonalis.
- Up-front strategy: IVUS-guided puncture of the cape with a hard wir
- Equipment:

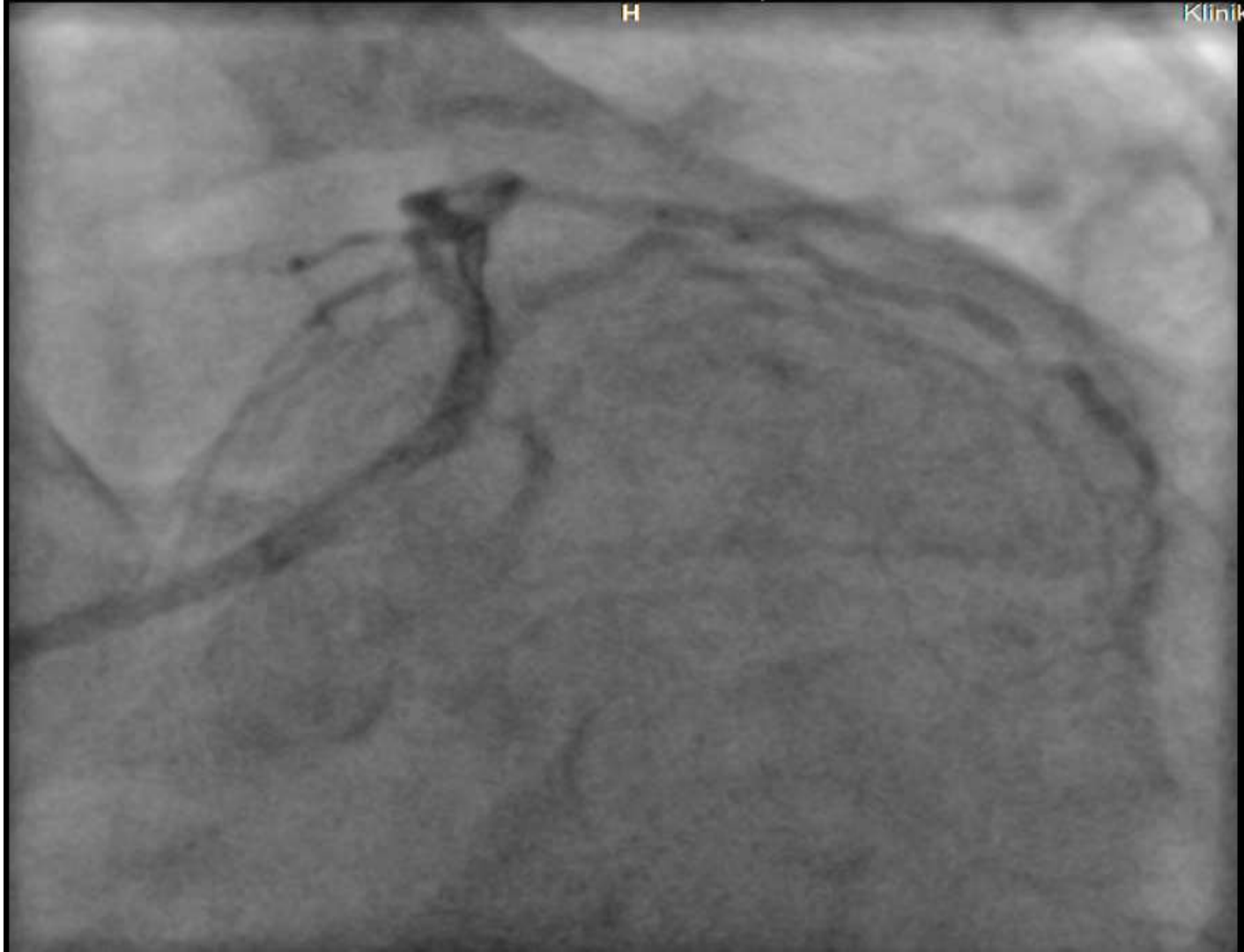
  EBU 4.0 8 F.

  Workhorse Wire Sion blue in the LAD

  IVUS-Prob (volcano)

  Gaia second

  Microcatheter Turn bike 130cm.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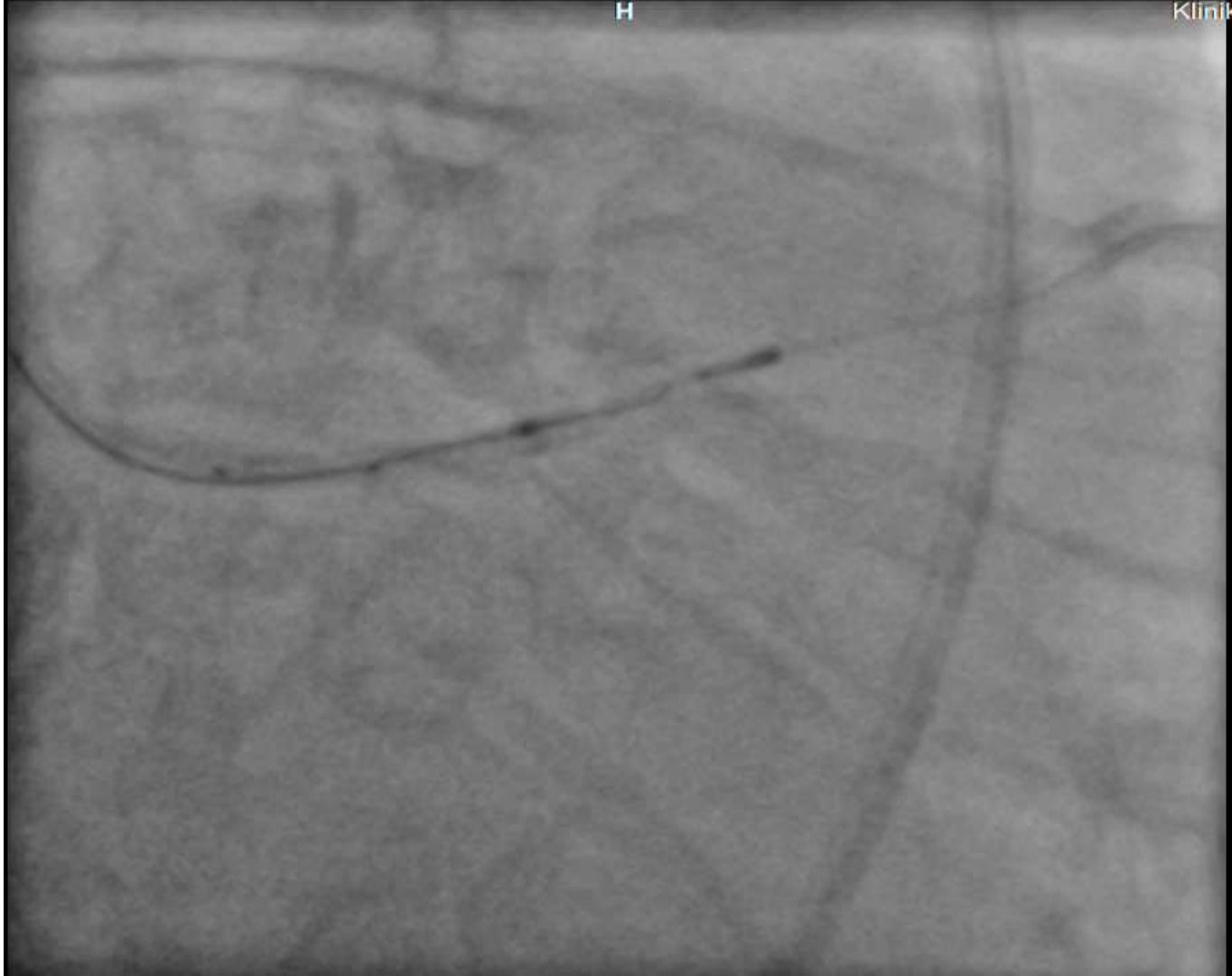
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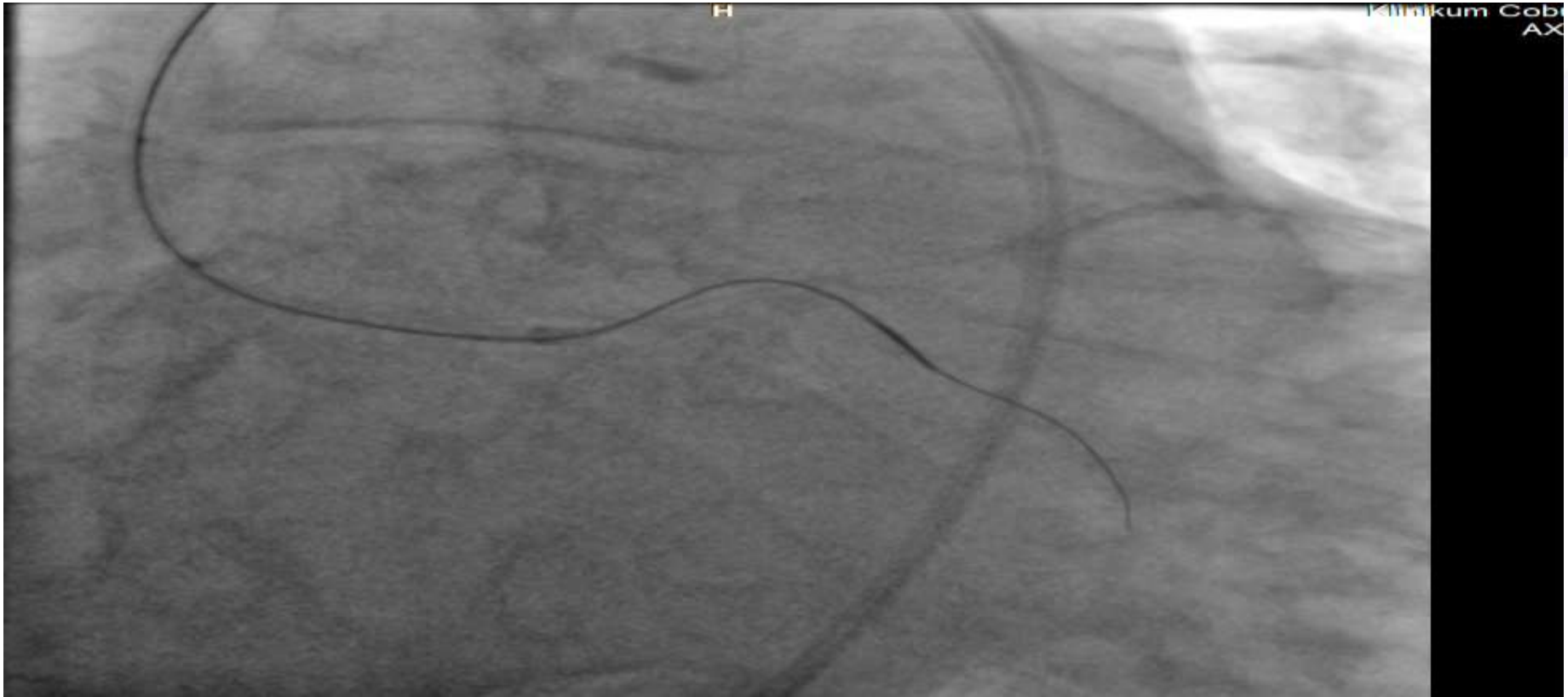
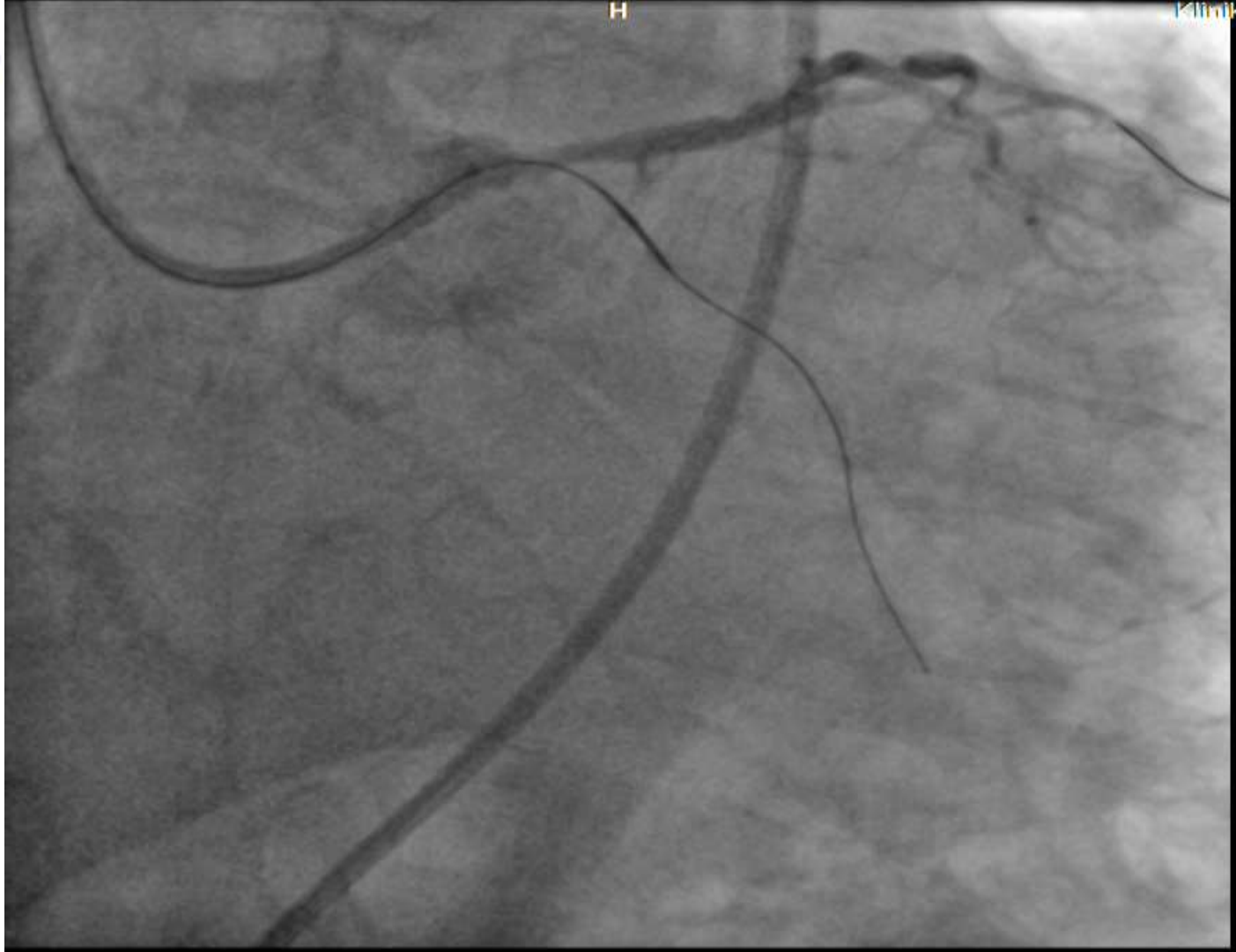
the cape puncture was done easily using Gaia second .



With this wire we reached the distal lumen after the CTO, but only in the direction of the RMS 2.
The microcatheter could not be advanced on the CTO wire because of the high calcium load.
Even an attempt with spinning of the microcatheter was not possible.
For this purpose, we used an anchor balloon in LAD medial (in the area of the old stent). Despite the slope of the back up,
the the Microcatheter was unable to pass.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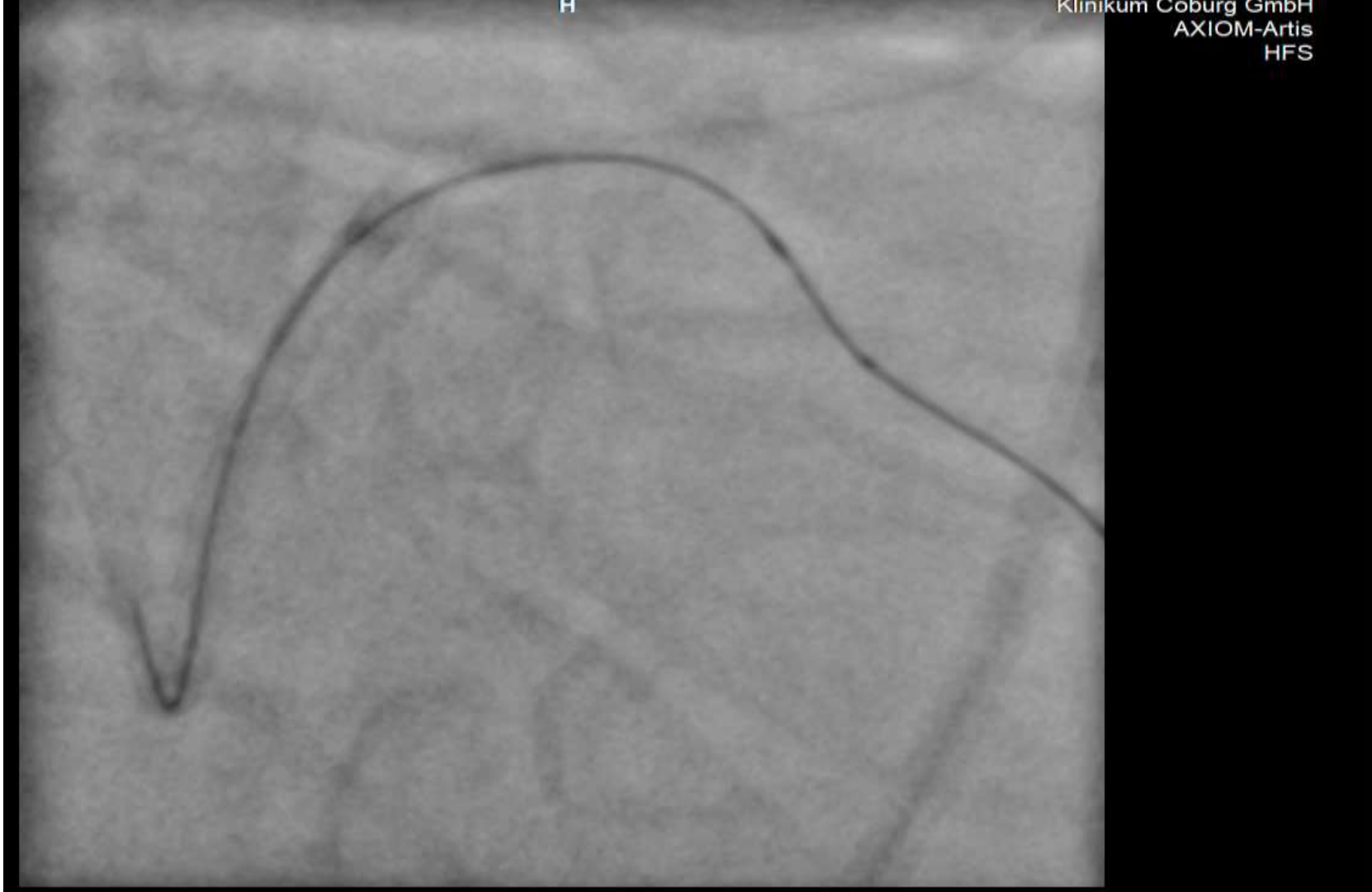
A attempt to do Angioplasty with microballoon 1x10mm.

The Balloon stucked in the middle of the CTO.

The reason was a black dot on the wire. When we checked the microcatheter, we found that the tip of the microcatheter got stuck on the wire in the vessel.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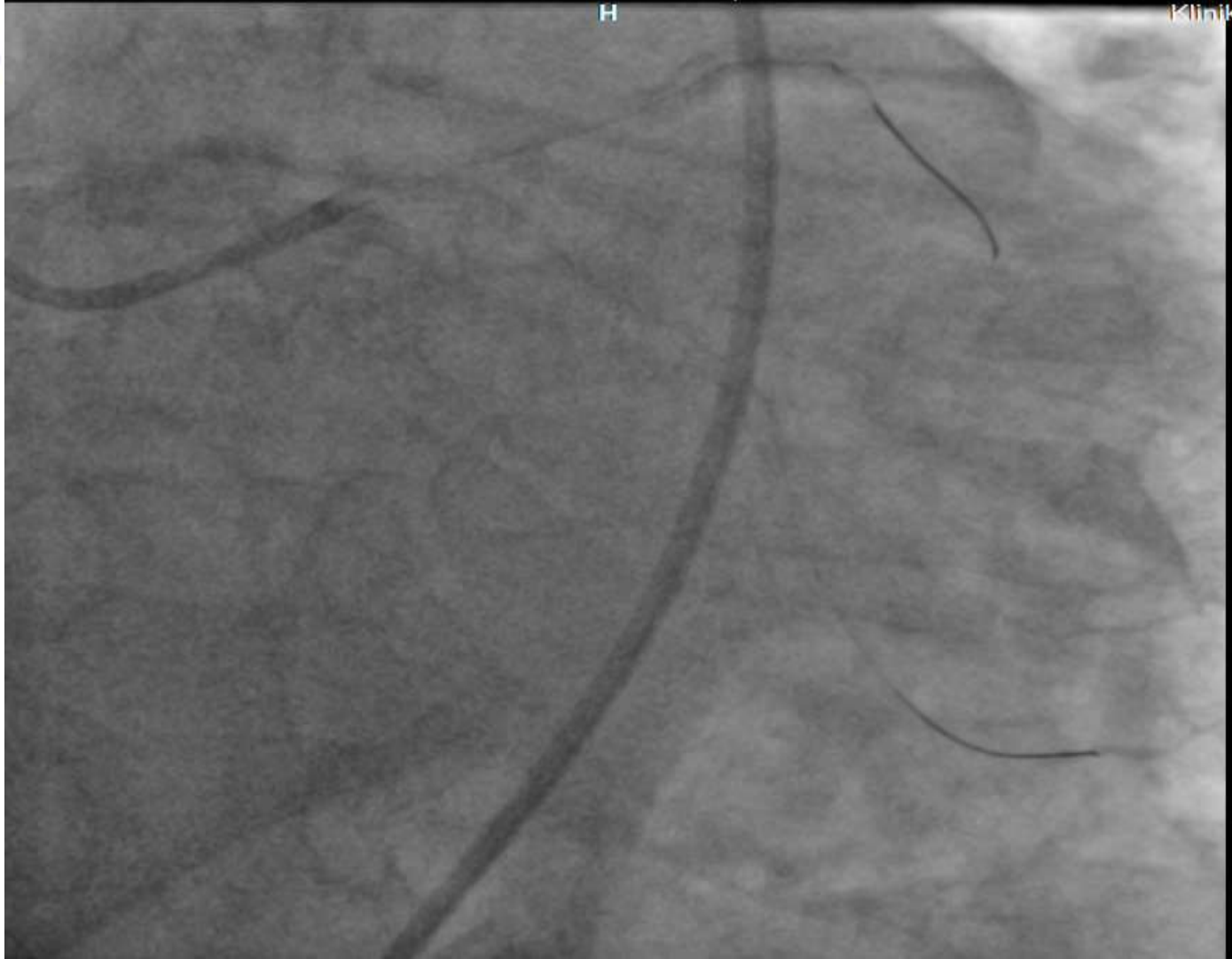
At the standing point of the wire we dilated with the micro balloon then with the NC balloon 2x8mm.
Then we placed a Parallerwire Fielder XT-A.
Luckily, we managed with it a smooth passage to the distal lumen
Then we pulled the Gaia second and advanced the Caravel microcatheter over Fielder XT A change to Workhors Sion blue.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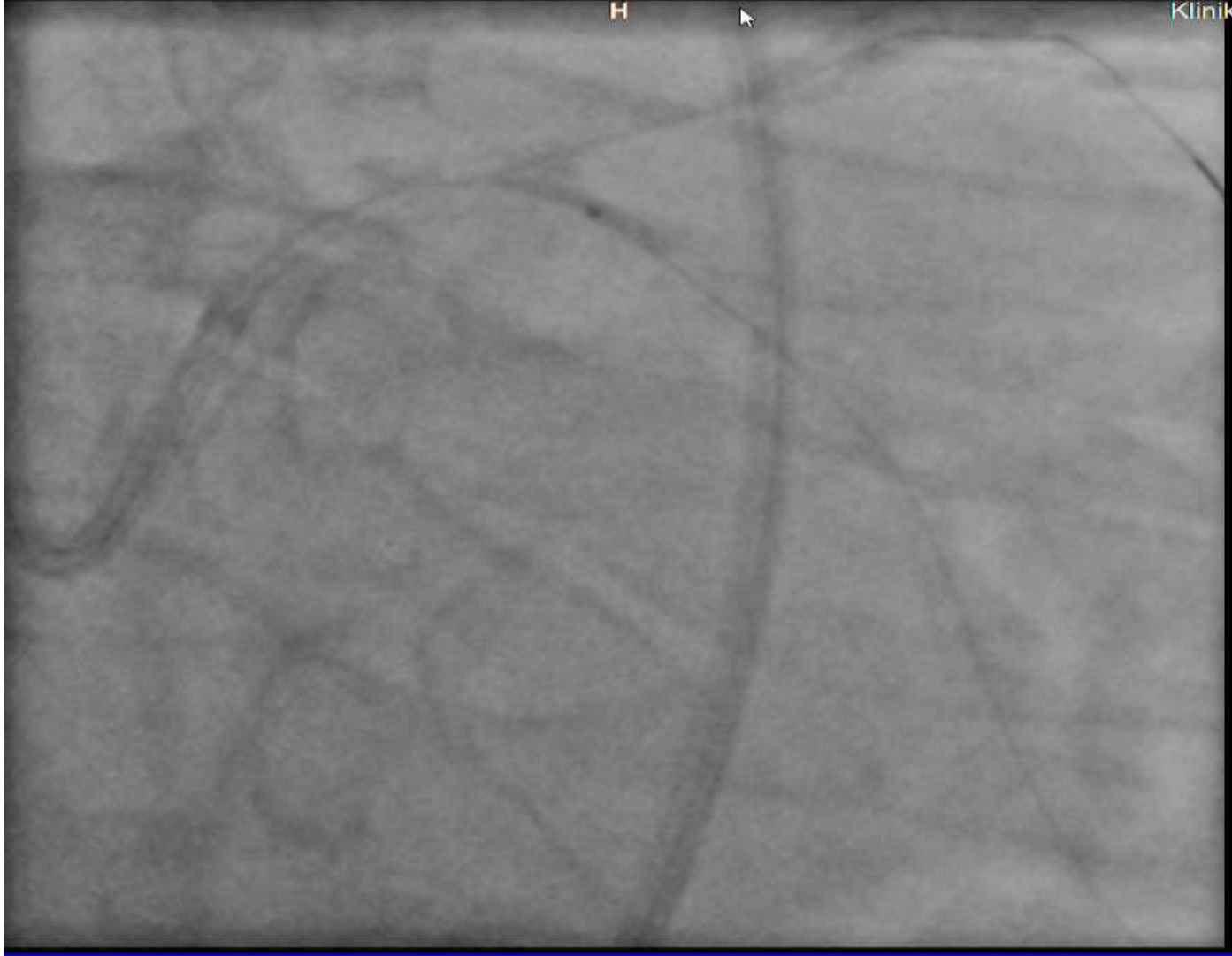
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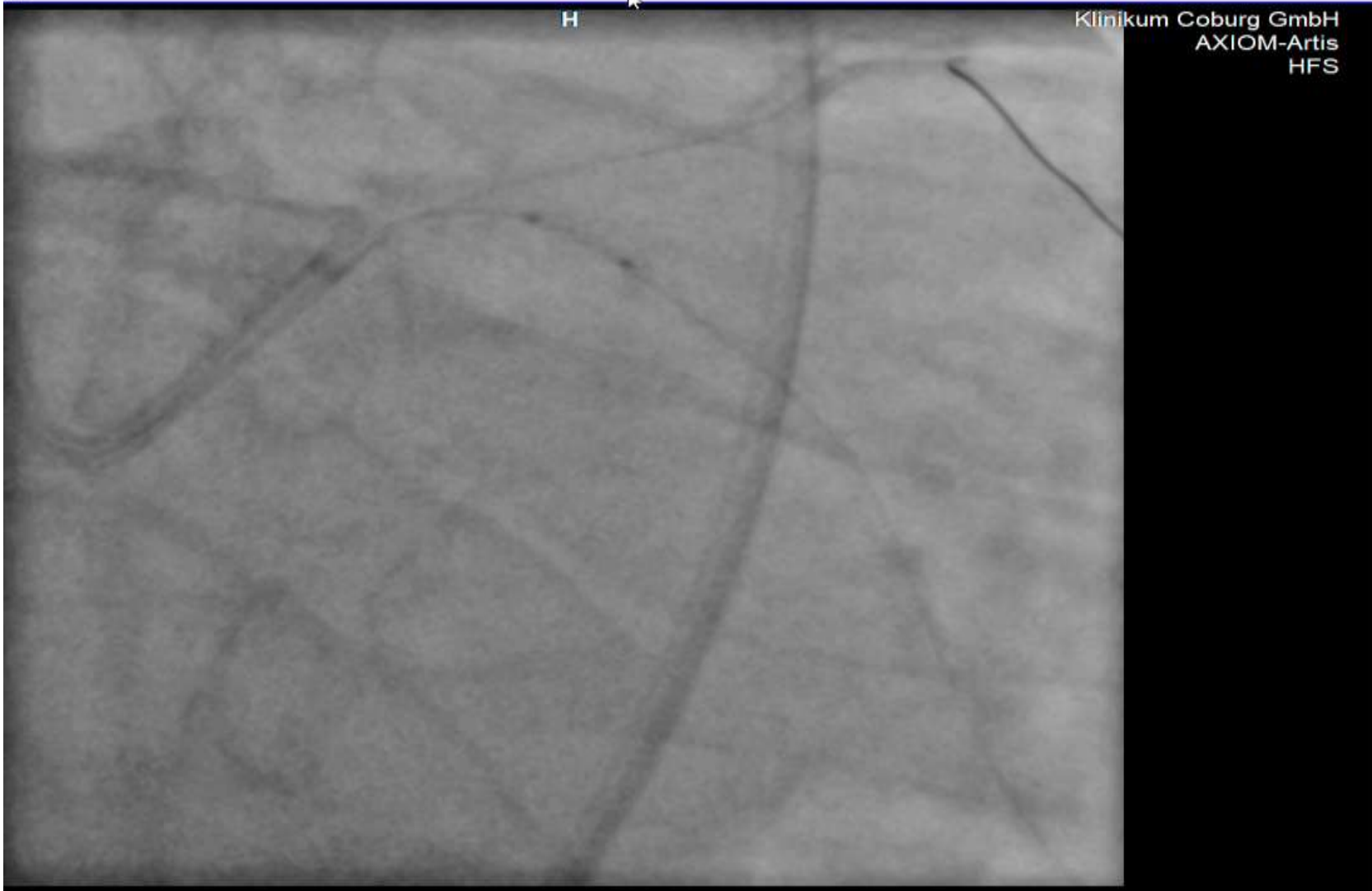
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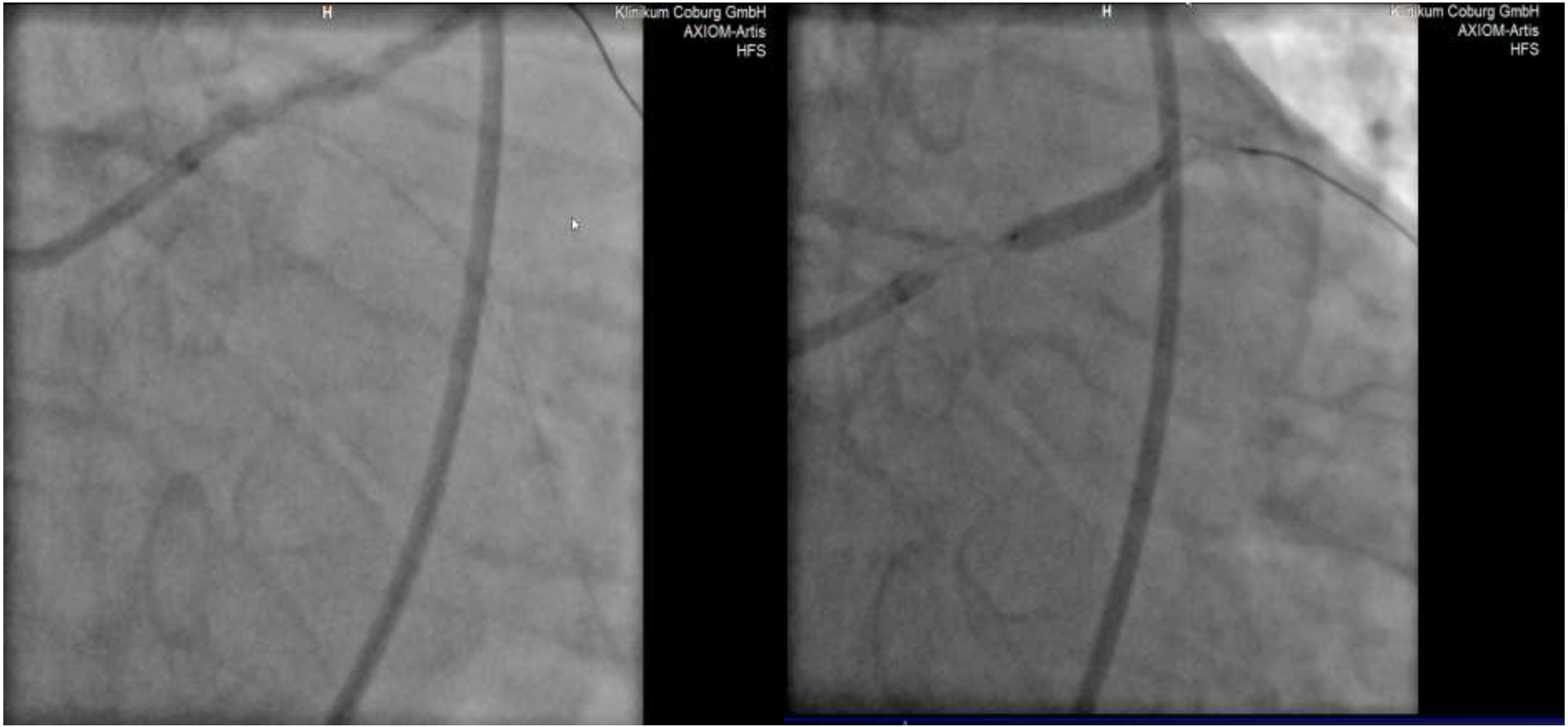
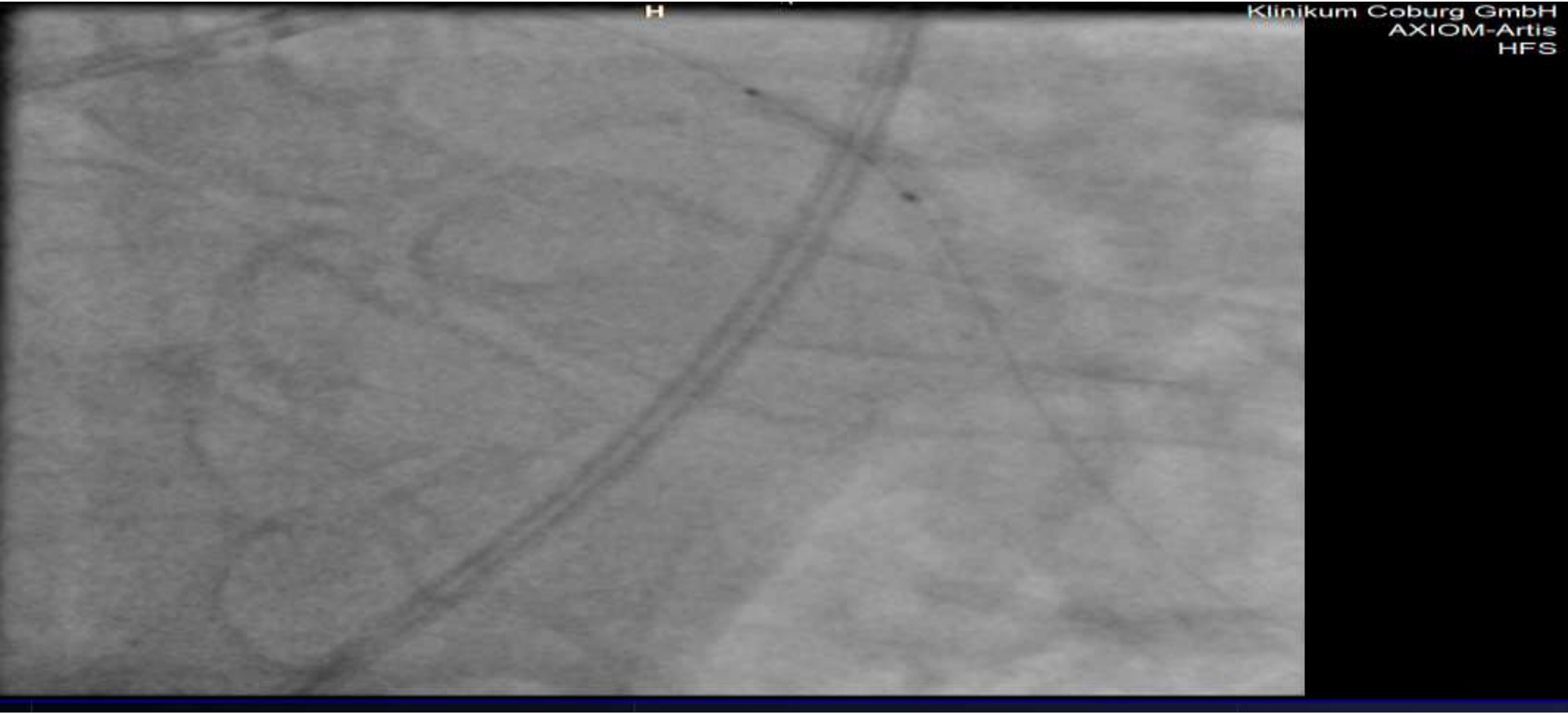
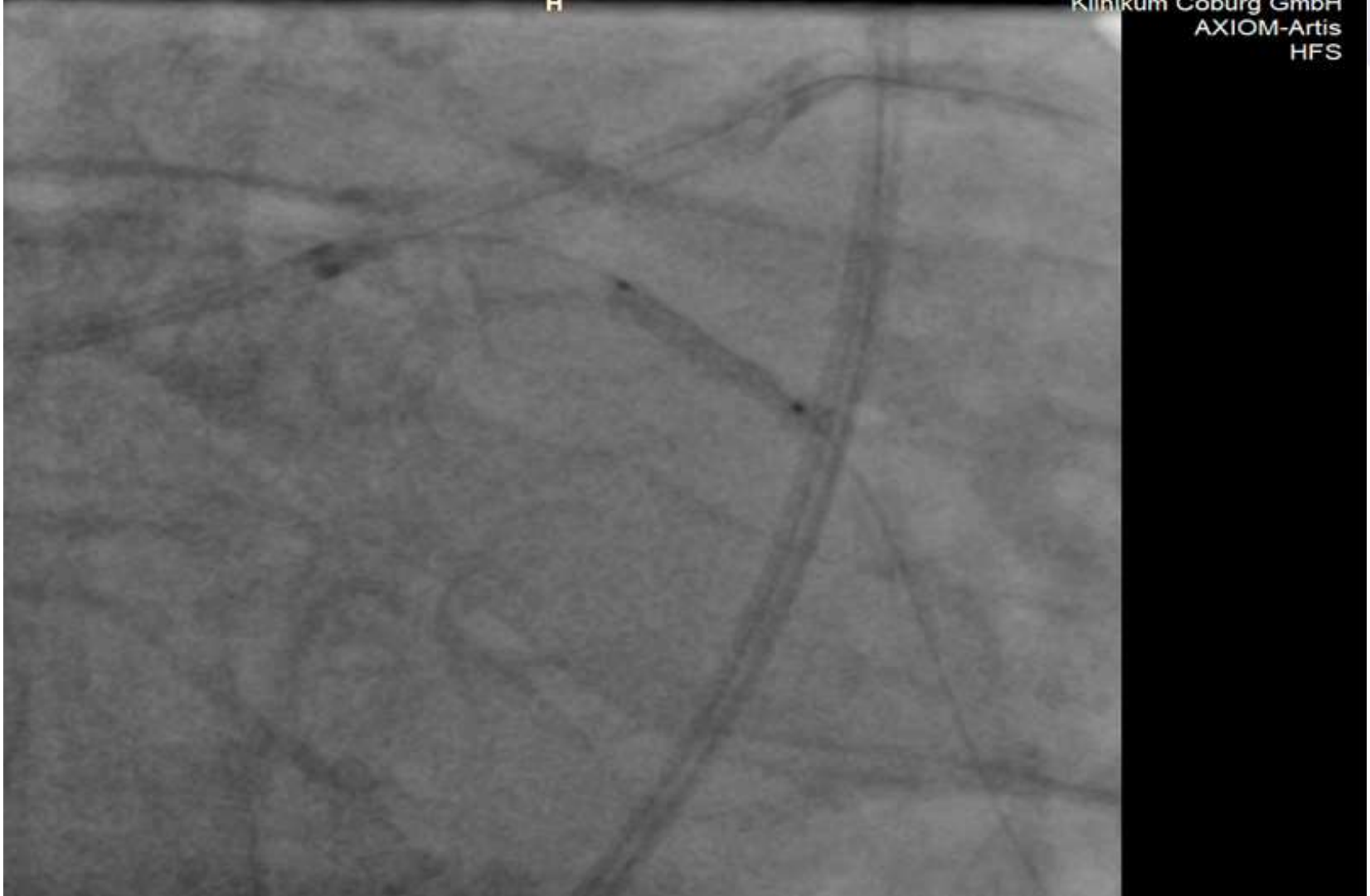
Here patient complains of chest pain. ECG showed dynamic ST depression.
Angiographically, there was a dissection in LAD proximally with preserved flow.
Immediately stenting a DES 3.5x24mm.



Dilatation of the LCX with NC balloon 2.5x15 then with NC balloon 3x12mm. However, the balloon did not deploy sufficiently.

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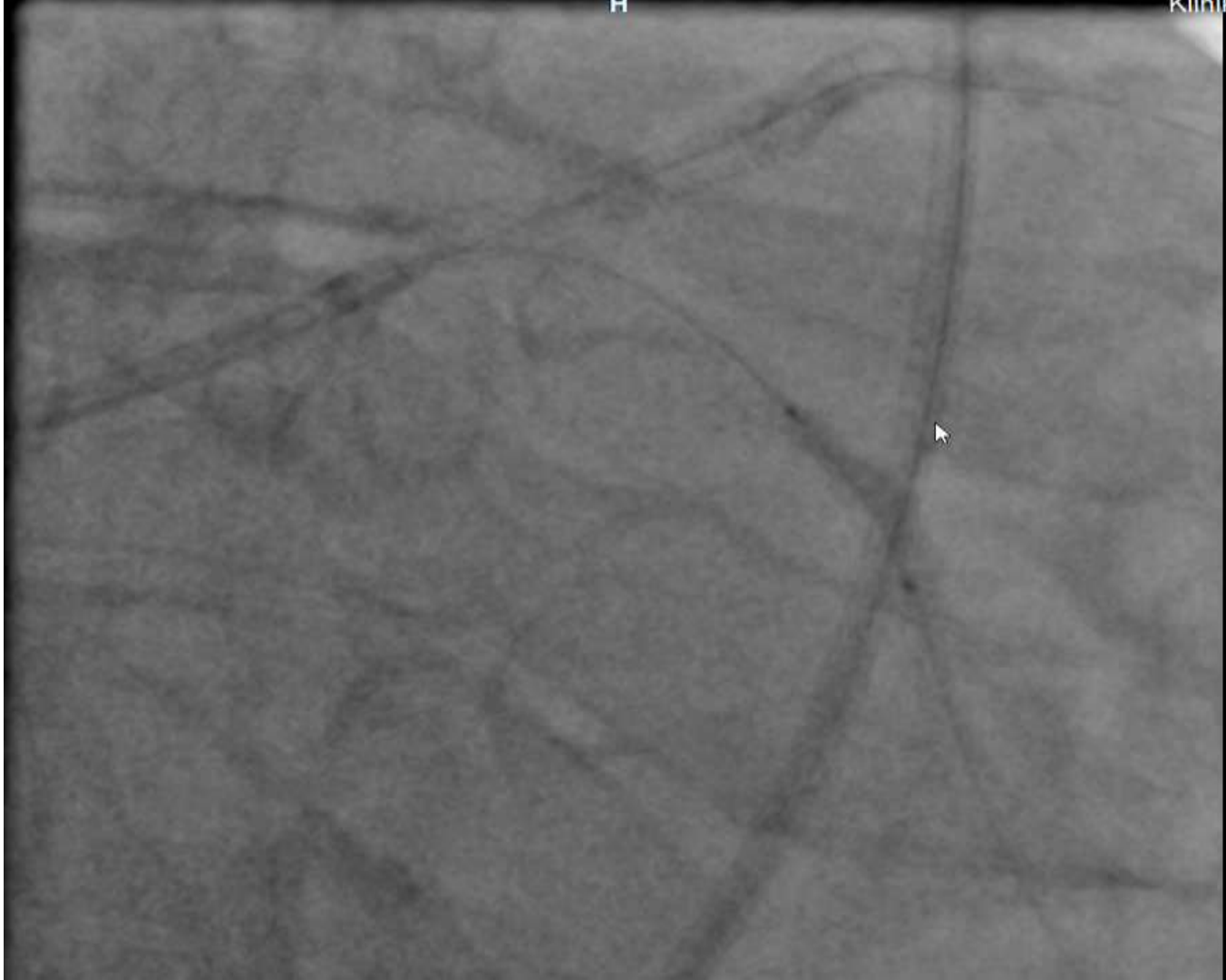
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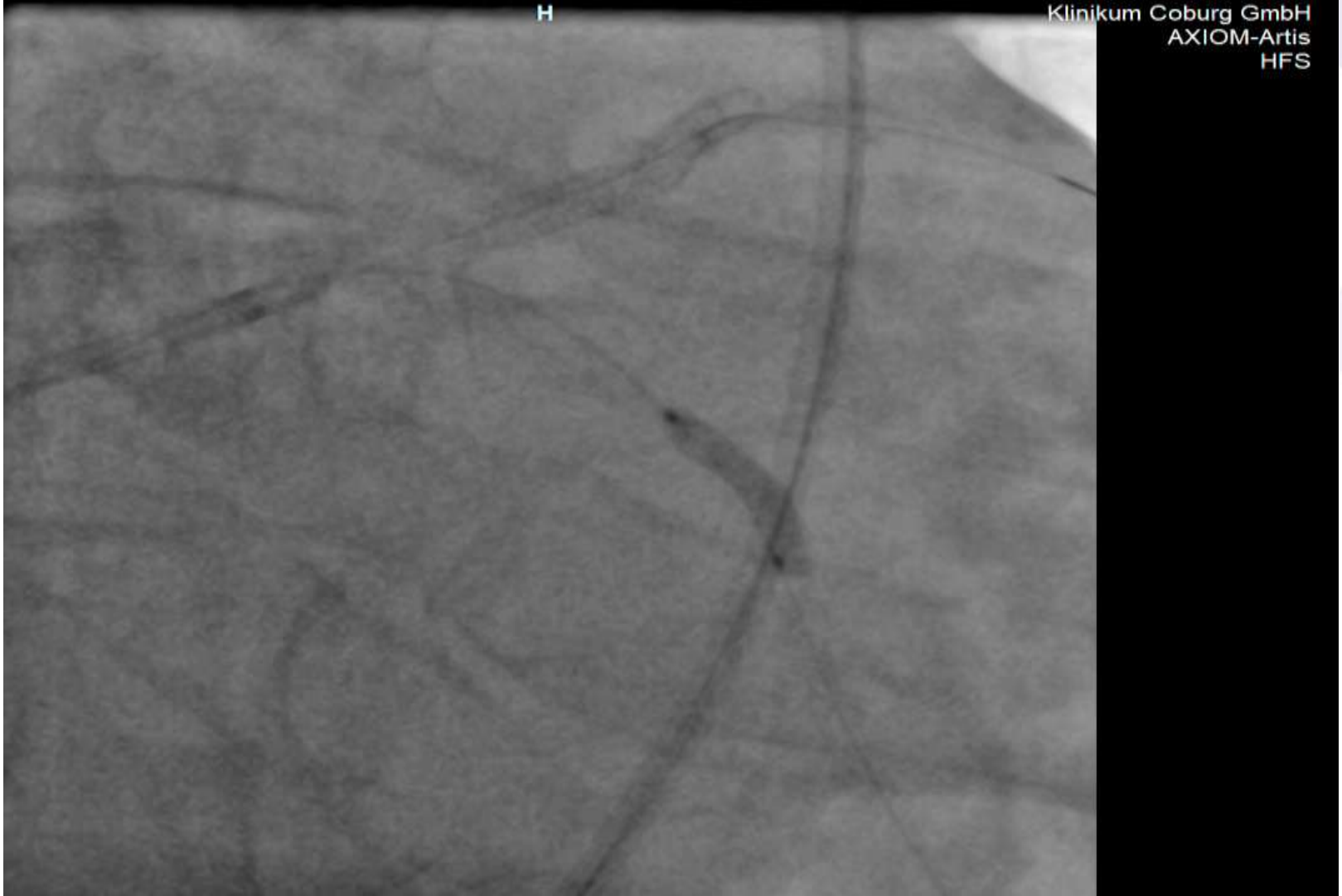
Hence the decision to Atherectomy with Rotablation.
After 5 rounds with Burr 1,5 mm was the passage of the Burr easy.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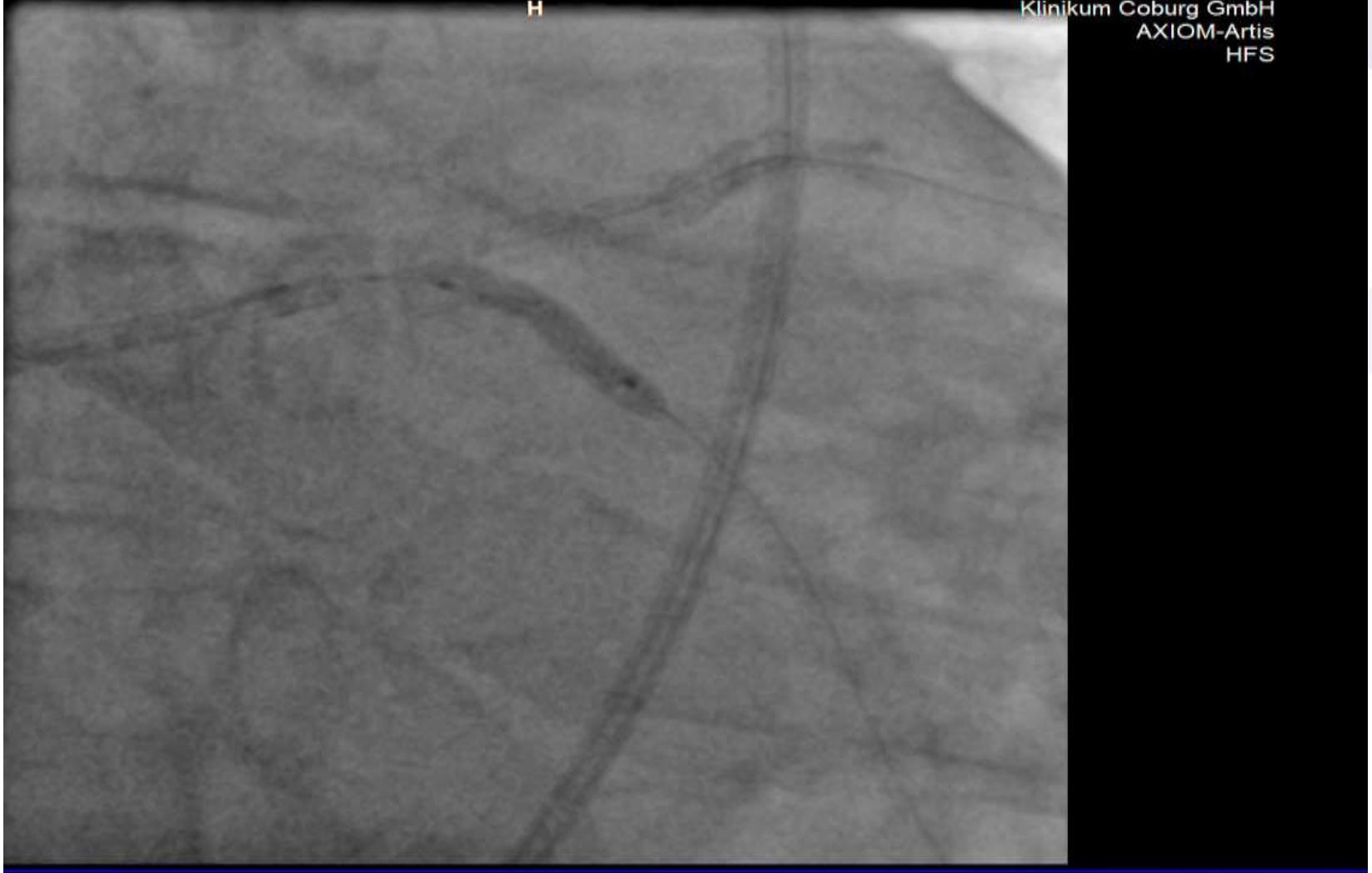
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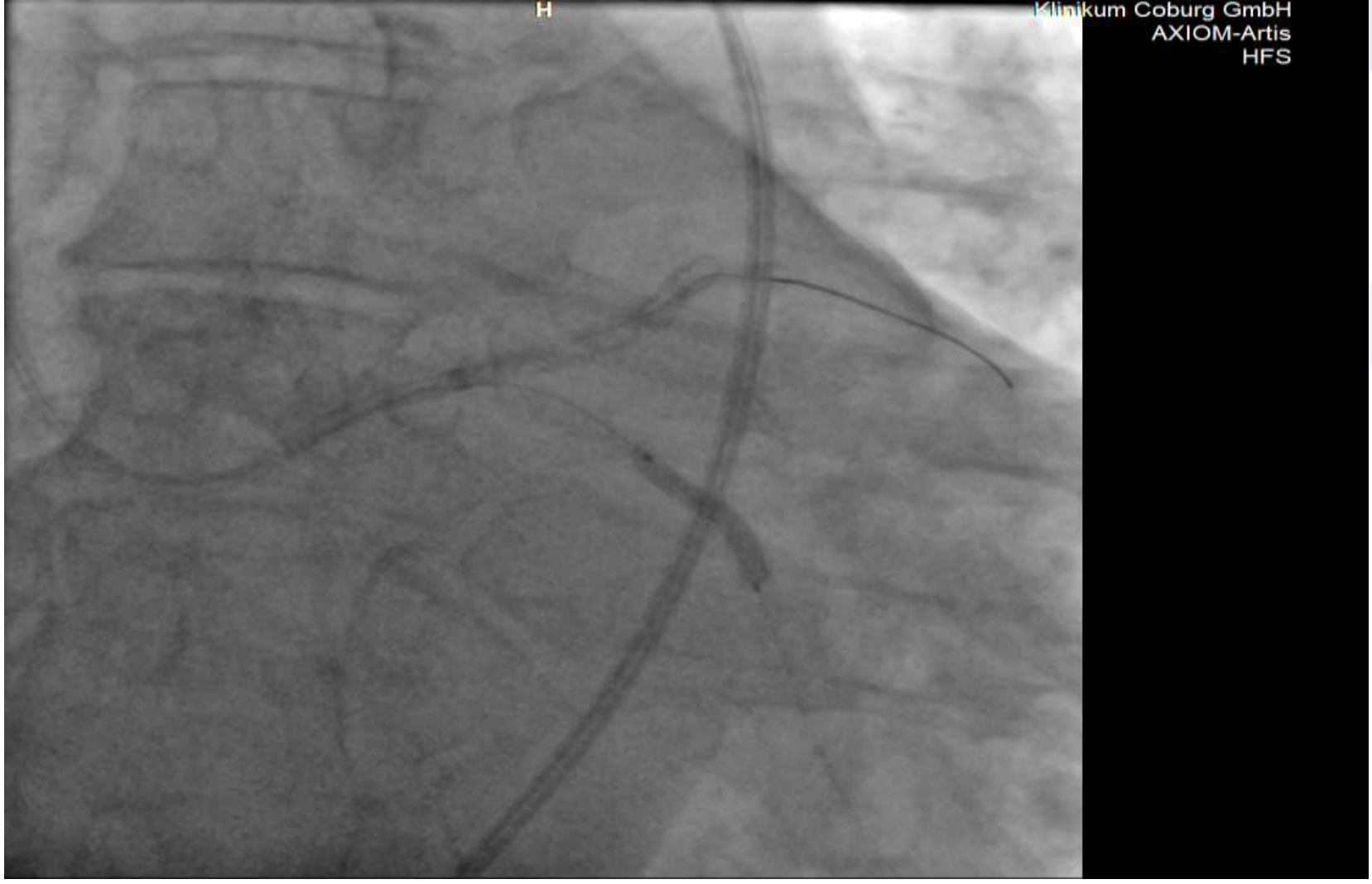
The LCX was stented medial with DES 2.75x16 and proximal to ostial with DES 3x20m.
Angiographically TIMI flow I, therefore extension with DES 2.5x 20 in RMS 2 proximal and 2.25x24mm medial.
Then TIMI FLOW III.
Then crush the LCX stent at the ostium and implantation a DES 5x16mm in LM/LAD 5x16mm up to the LM ostium. Finally good primary result.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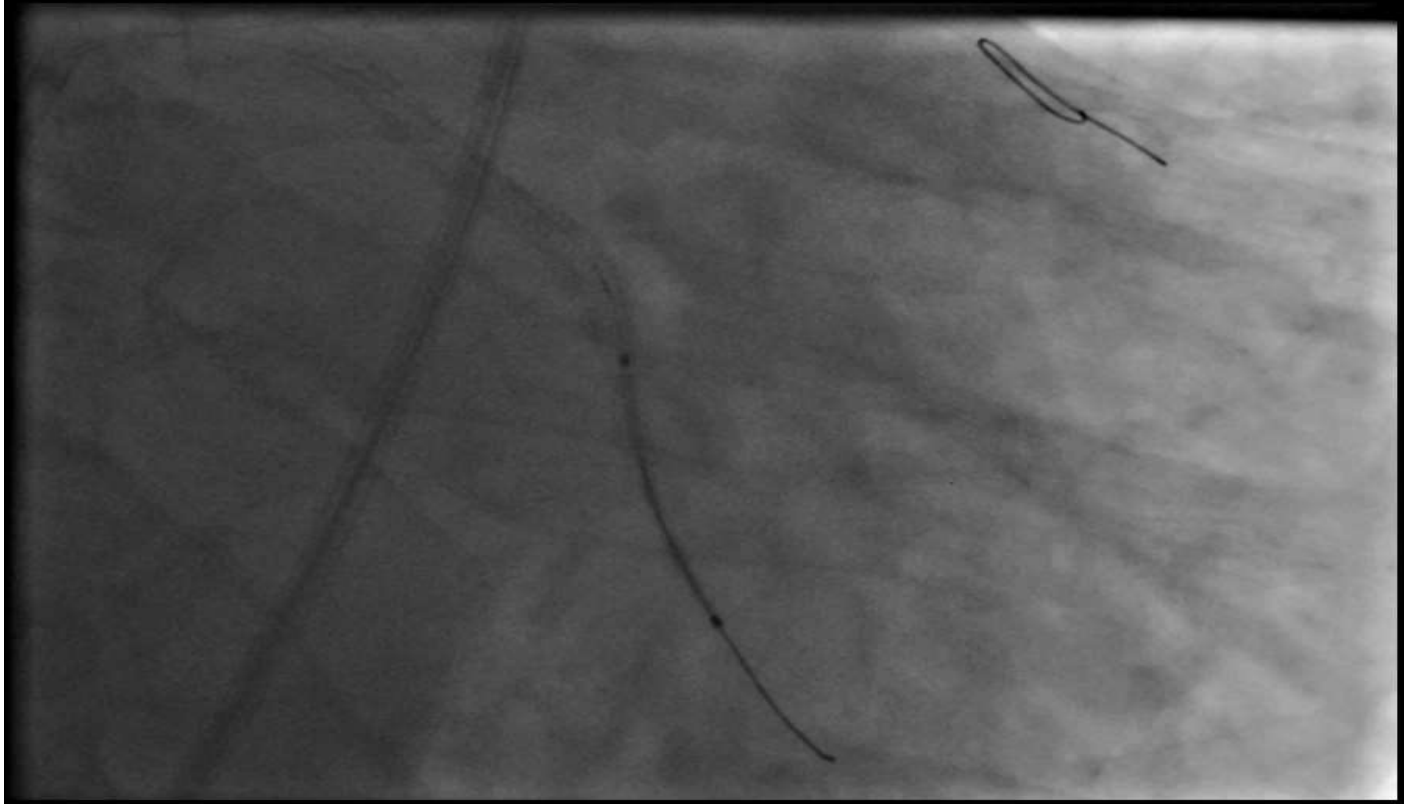

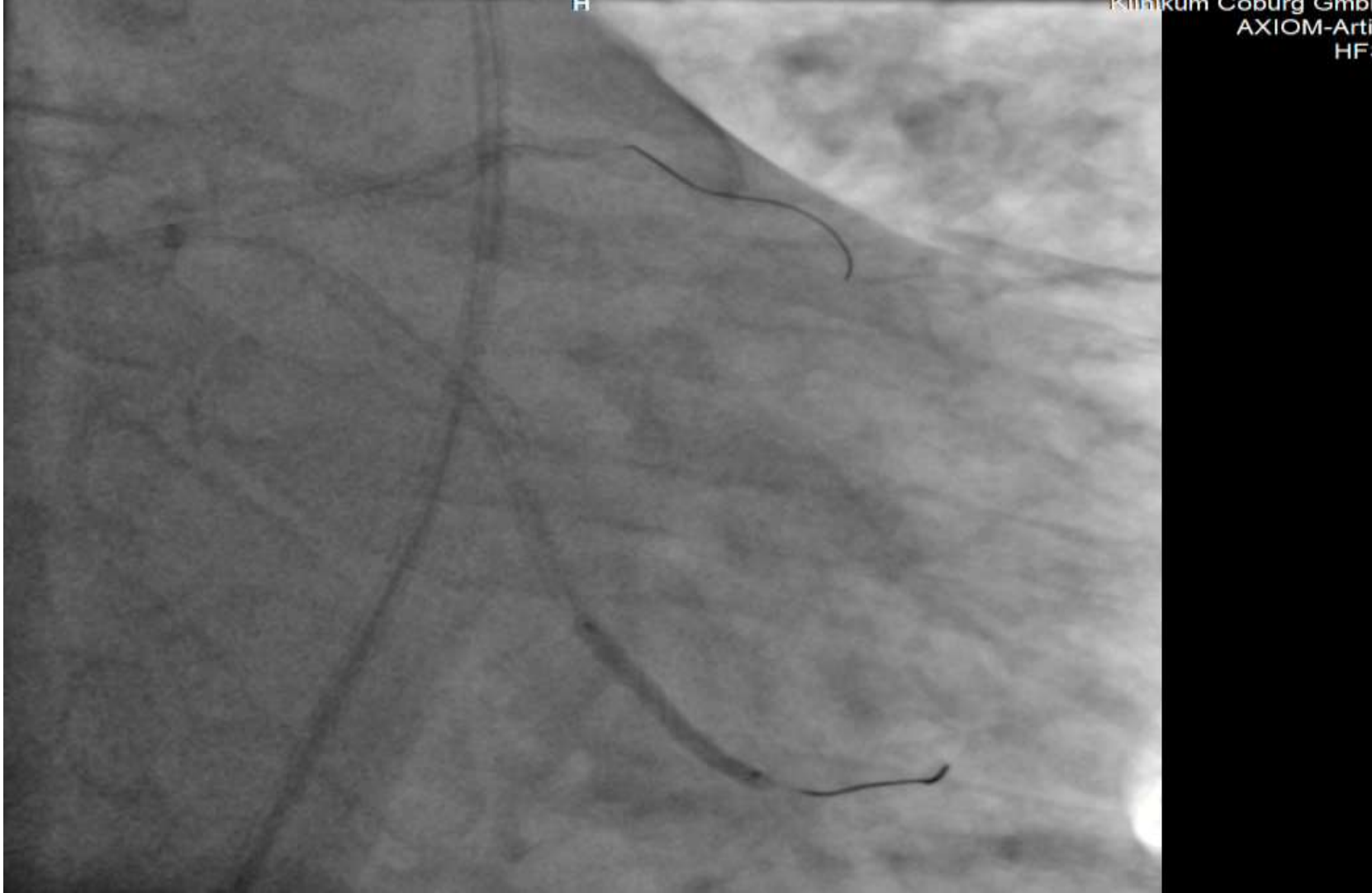
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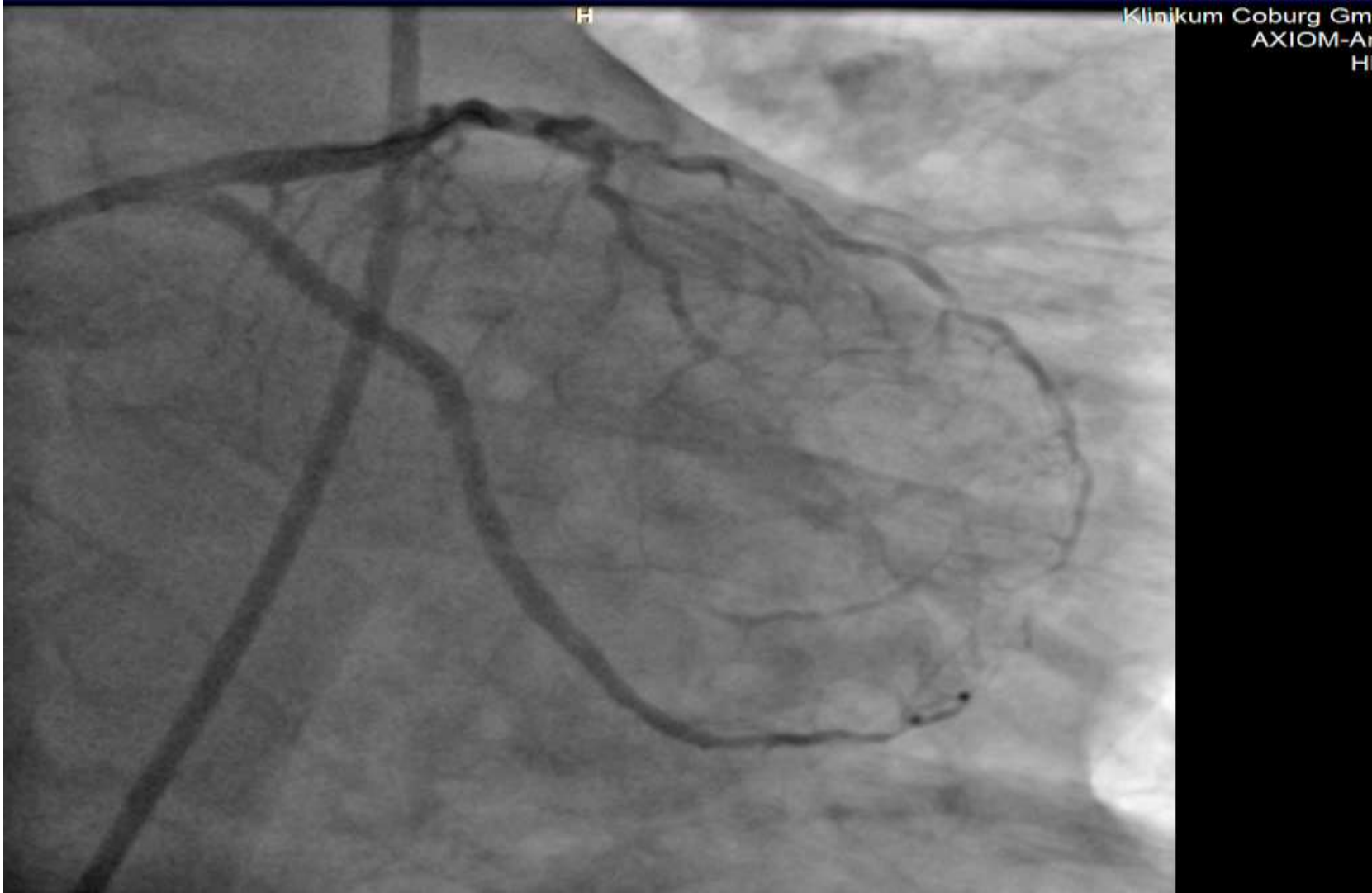
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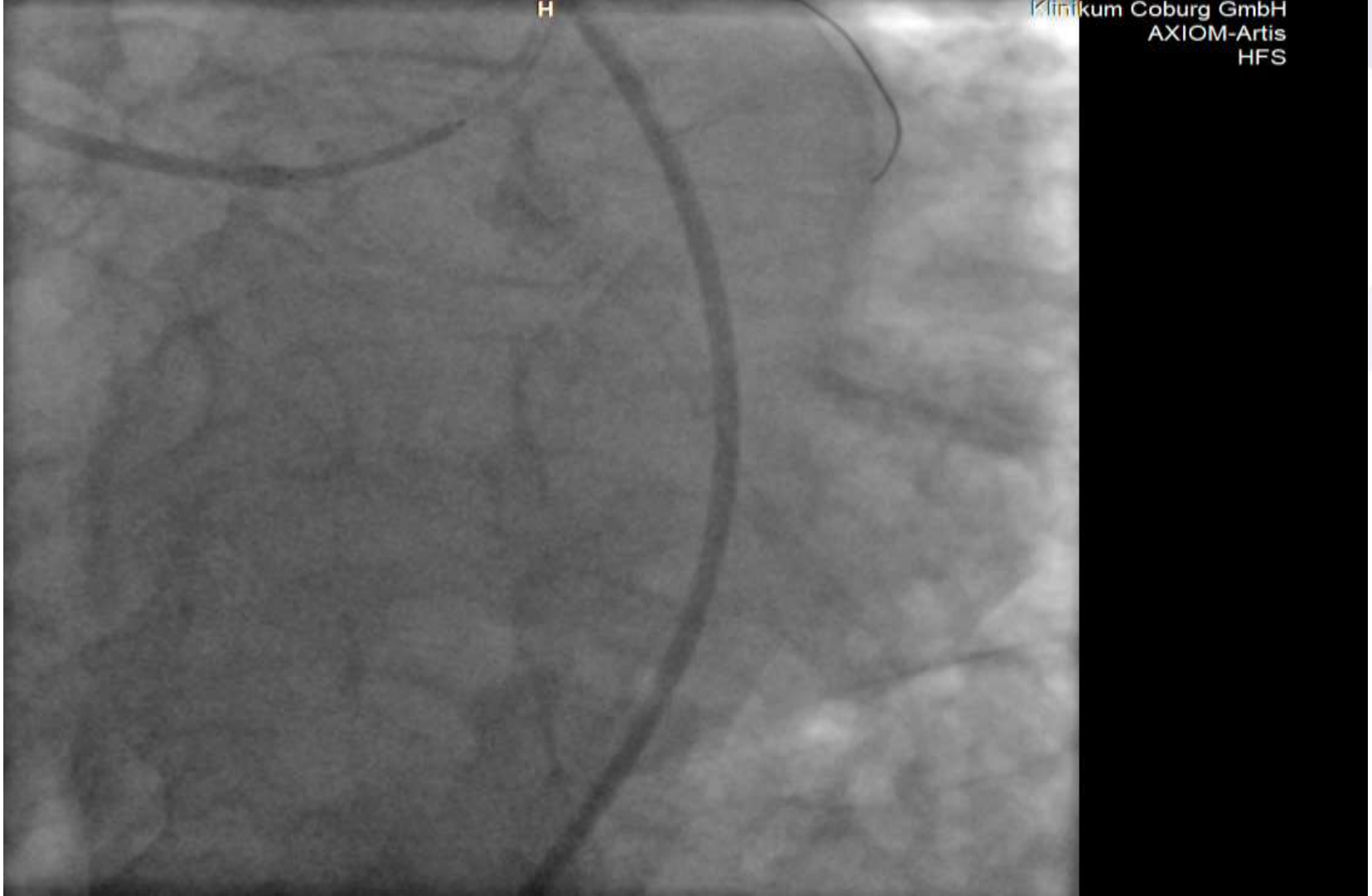
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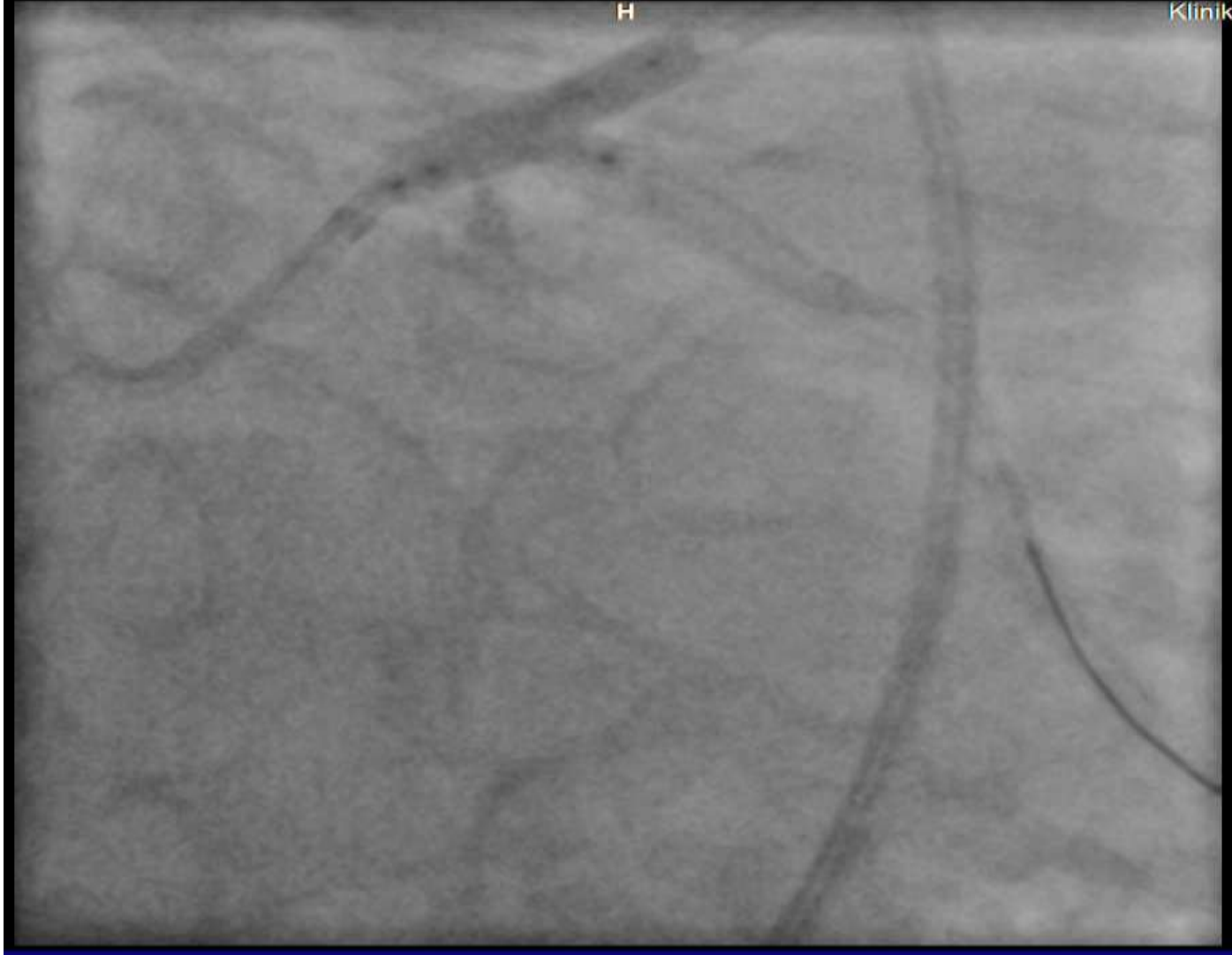
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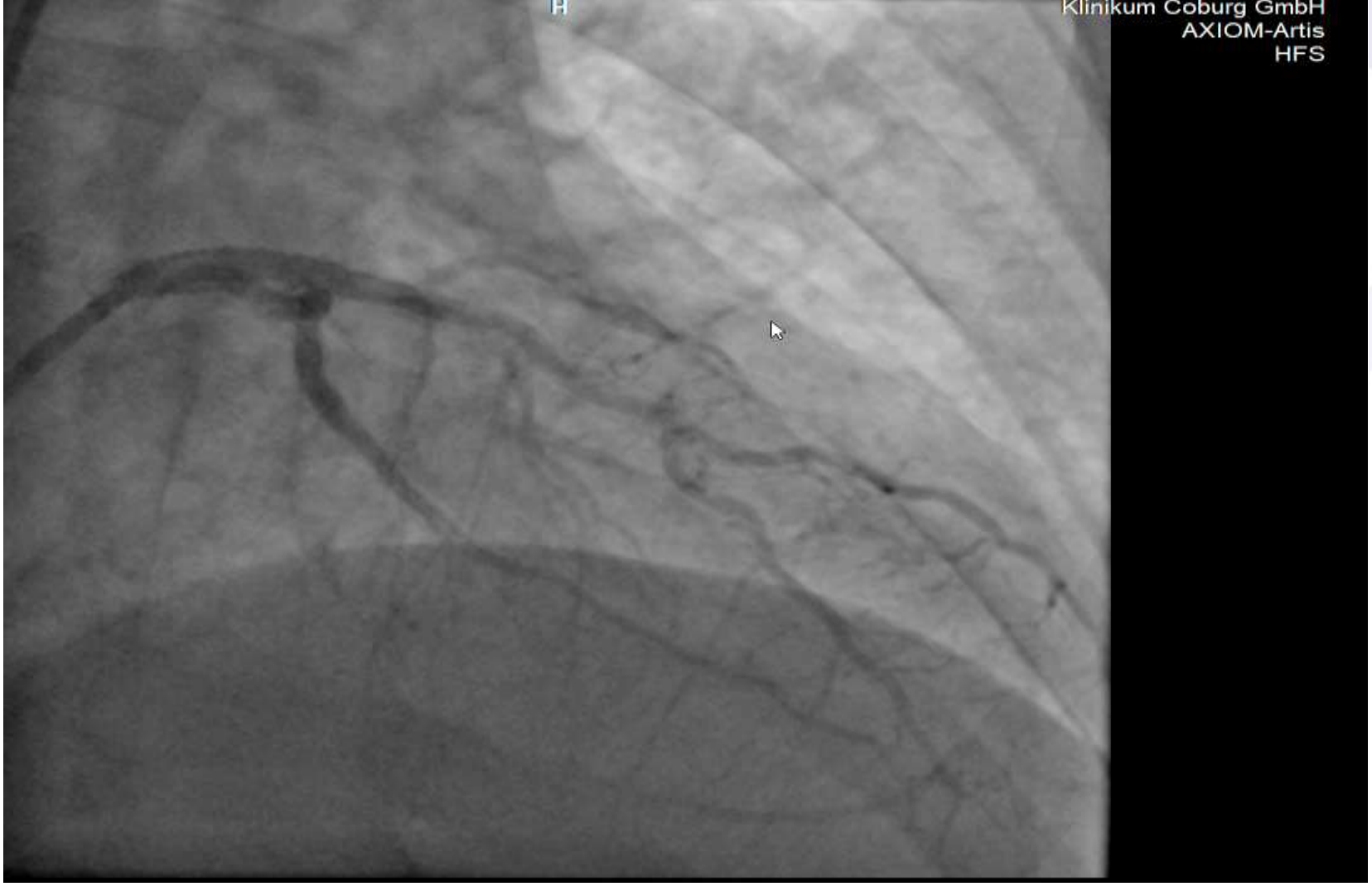
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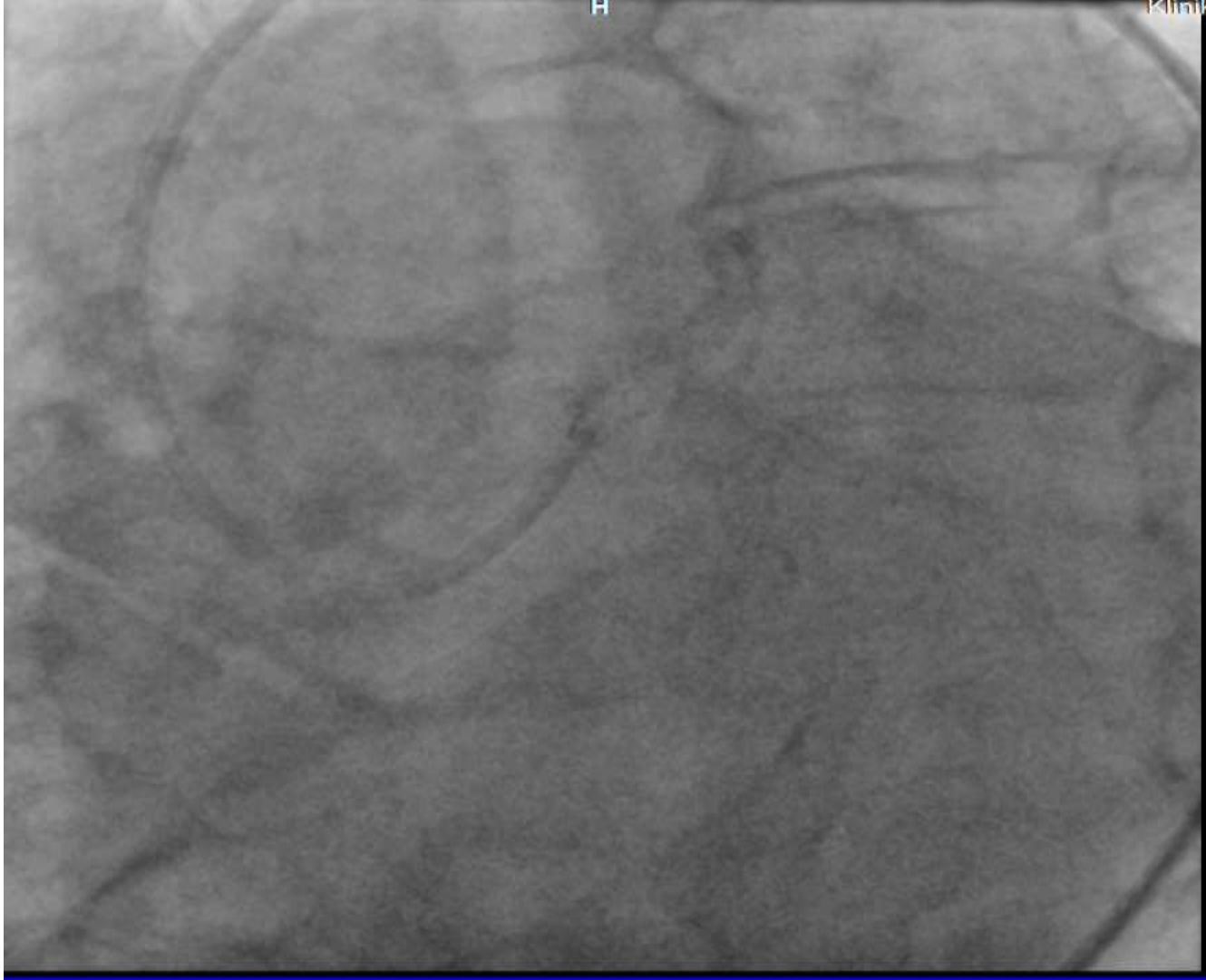
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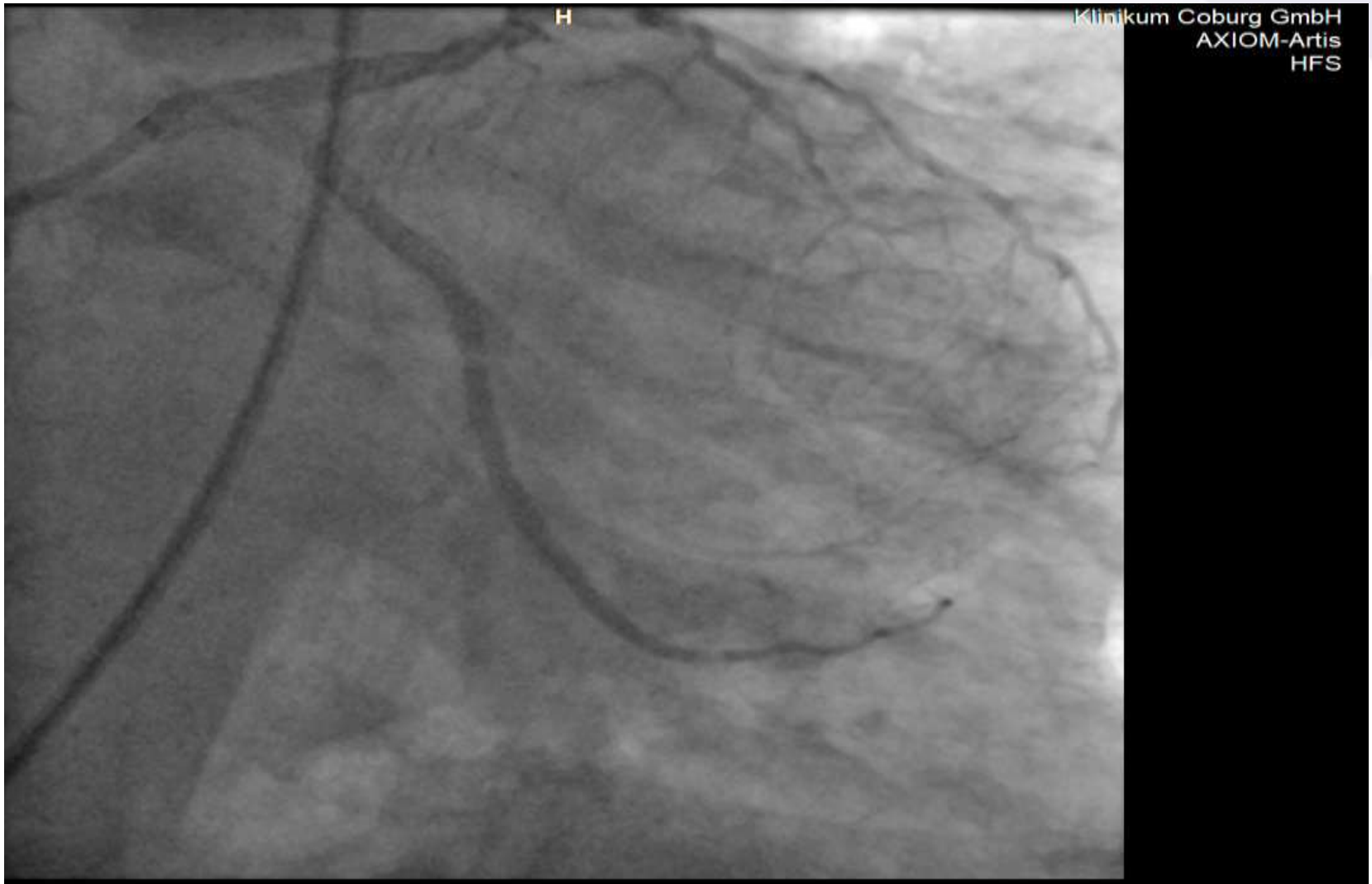
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Fluoroscopy-Time 64min.

DAP: 18030 cGy*cm²

Contrast 230ml

With regard to the remaining Occlusion of the acute marginalis 1, we waived the recanalization because the patient was exhausted.