

Postpartum Acute Coronary Syndrome

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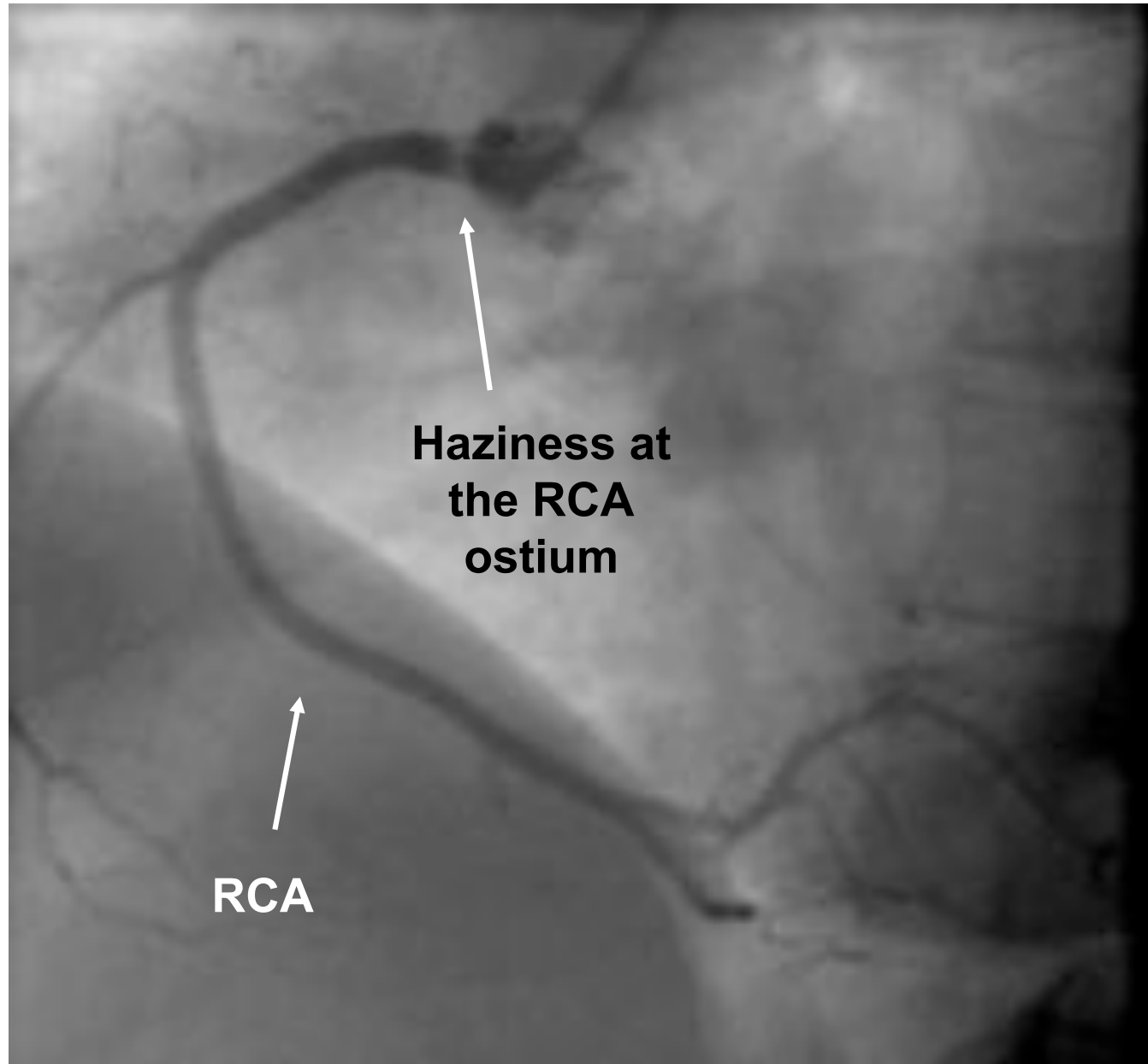
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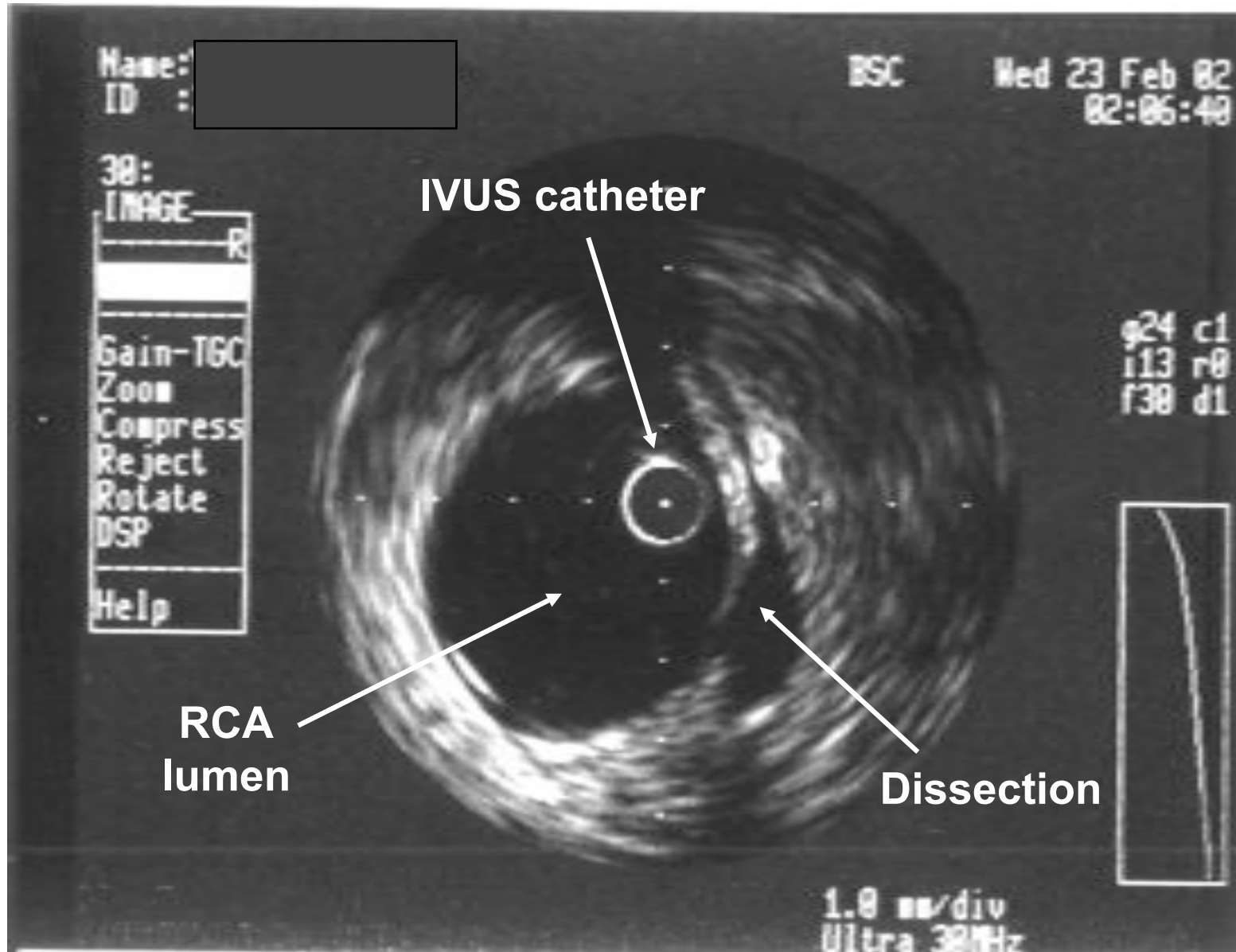
Images in Clinical Medicine

Frimerman A, Meisel SR, NEJM 2004 Nov

- **A 35-year-old woman, G1P1**
- **Admitted for presyncope several days after normal vaginal delivery**
- **Physical examination: unremarkable**
- **ECG: transient ST depressions in inferolateral leads (II, III, aVF, V4-6)**
- **Dobutamine echo stress test: new wall-motion abnormalities**
- **A coronary angiogram was performed**



Normal coronary arteries with haziness at the right coronary arterial ostium



Intravascular ultrasound imaging showed a nonocclusive ostial dissection with a free-moving flap

Peripartum dissection of the Right Coronary Artery

Frimerman A, Meisel SR, NEJM 2004 Nov

- **A conservative therapeutic approach was chosen**
- **Treatment: aspirin, amlodipine, and enoxaparin for three weeks**
- **She was asymptomatic for 4 months**
- **Then she began to experience increasing chest discomfort**
- **At 11 months, SPECT thallium exercise test showed infero-lateral ischemia**

Peripartum dissection of the Right Coronary Artery

Frimerman A, Meisel SR, NEJM 2004 Nov

- Repeated angiography showed the same haziness at the proximal right coronary artery
- Repeated IVUS showed worsening of the intimal dissection at the same site
- A stent was deployed, with a good result
- Eight months later the patient asymptomatic. Repeated SPECT showed normal perfusion

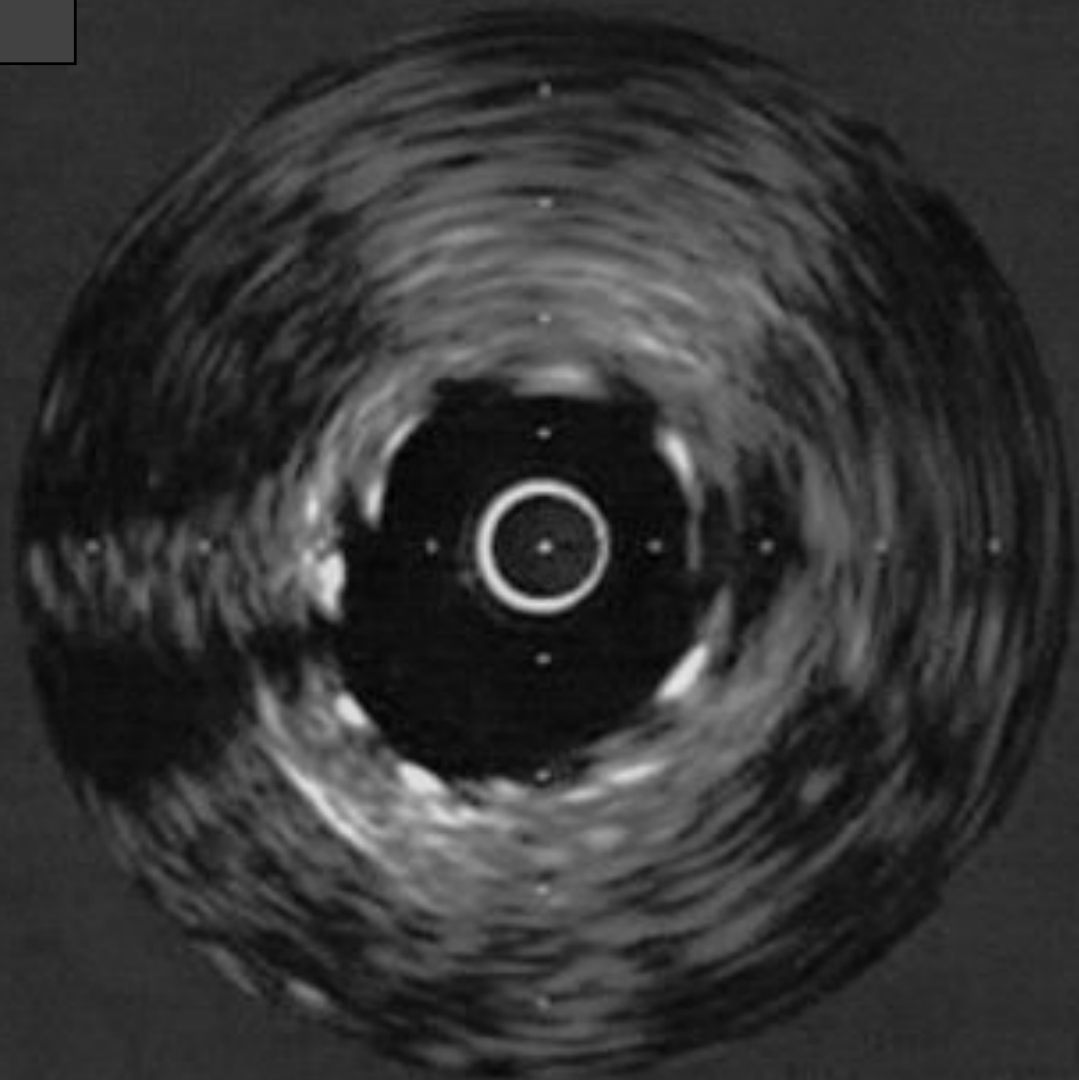
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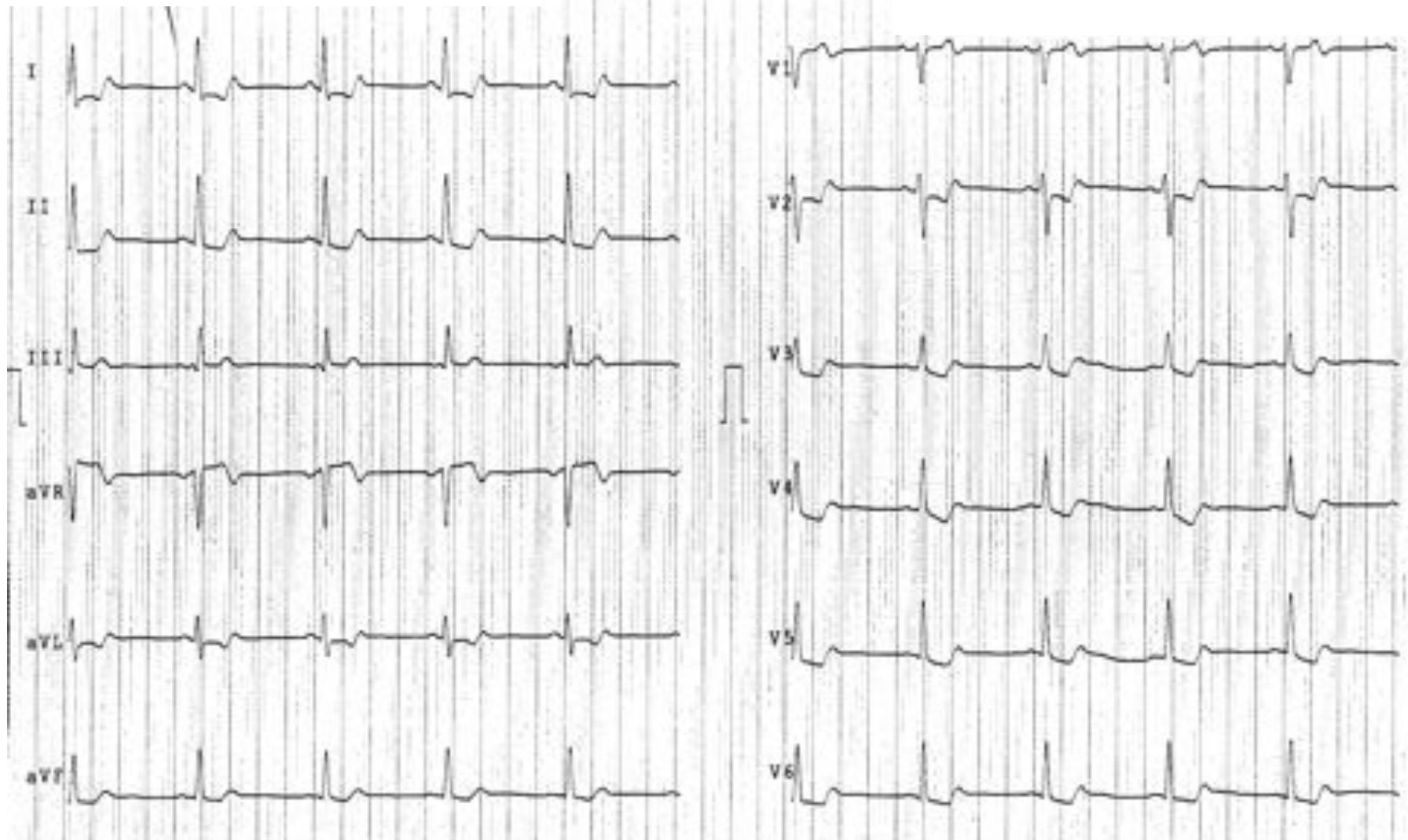
1.0 mm/div
Ultra 30MHz

Frimerman et al, NEJM 2004 Nov

- **A 33 years, G3P3**
- **Usually healthy**
- **No atherosclerosis risk factors**
- **6 months after normal delivery of her 3rd child**
- **Admitted for severe precordial pain for 2 hours**

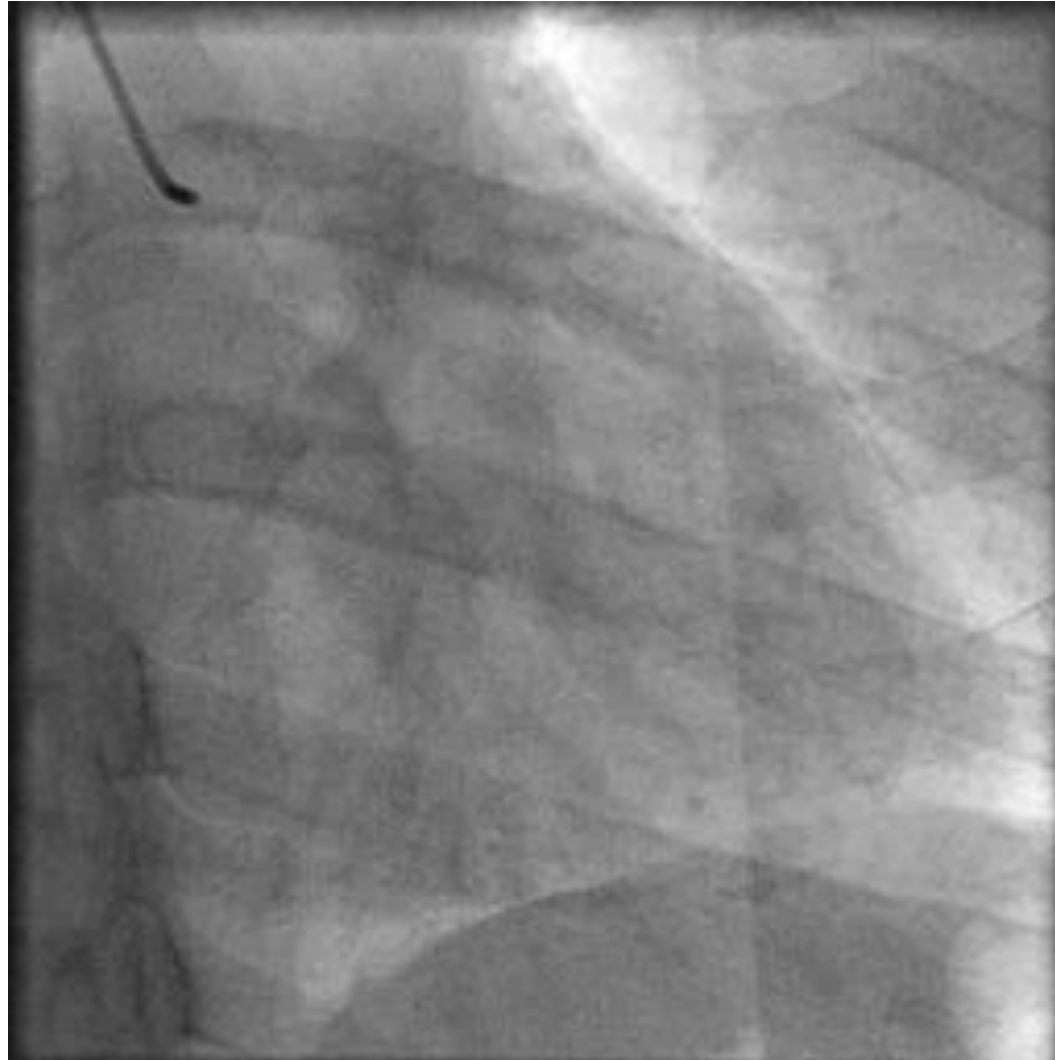
ECG at admission

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There was an abnormal rise in troponin and CK-MB levels (later)

Normal left system, collateral filling of RCA



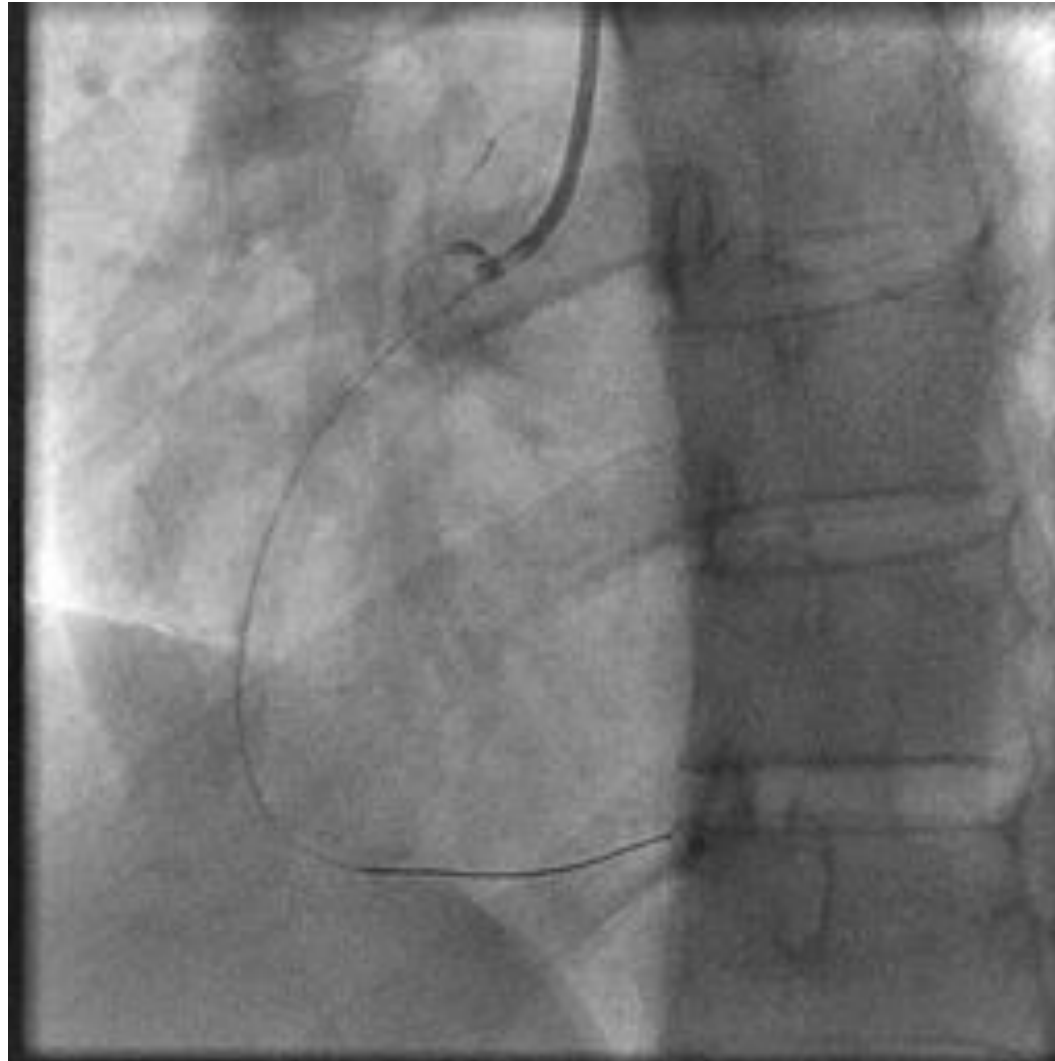
Thrombus filled aneurysm at the proximal RCA (LAO)



Thrombus filled aneurysm at the proximal RCA (RAO)

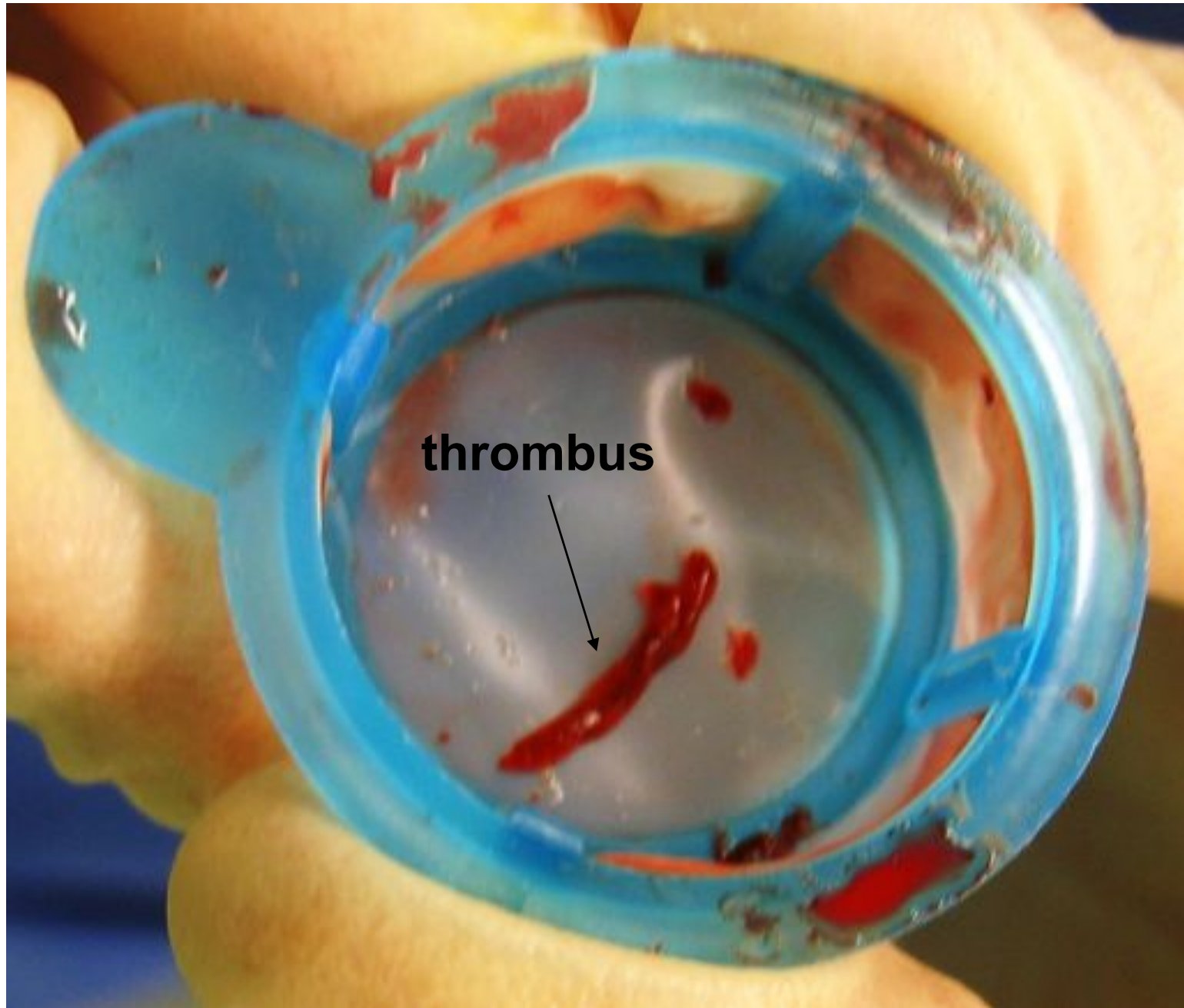


Guide wire in RCA



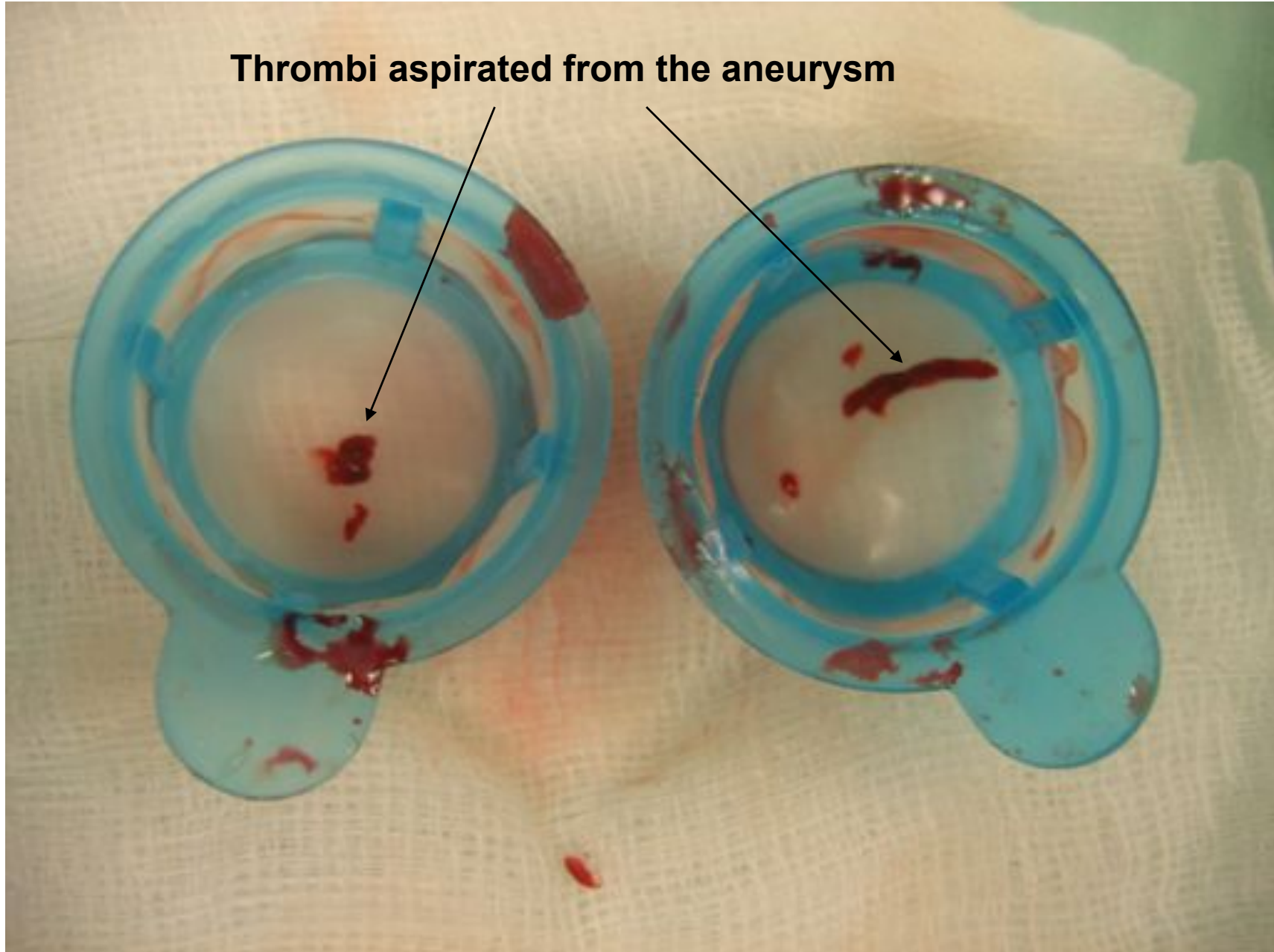
Thrombus removal by the Pronto aspiration device





thrombus

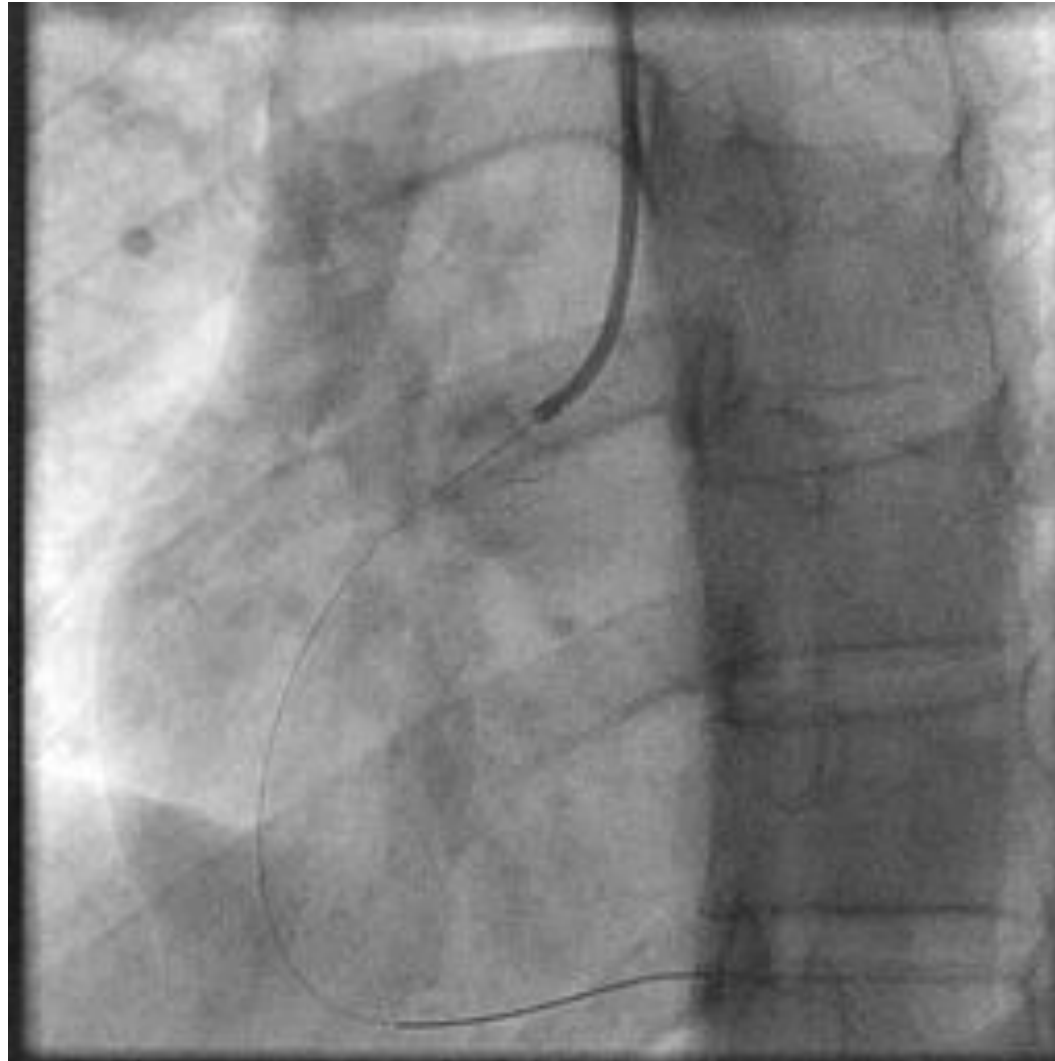
Thrombi aspirated from the aneurysm



Balloon inflation at the aneurysm/artery junction



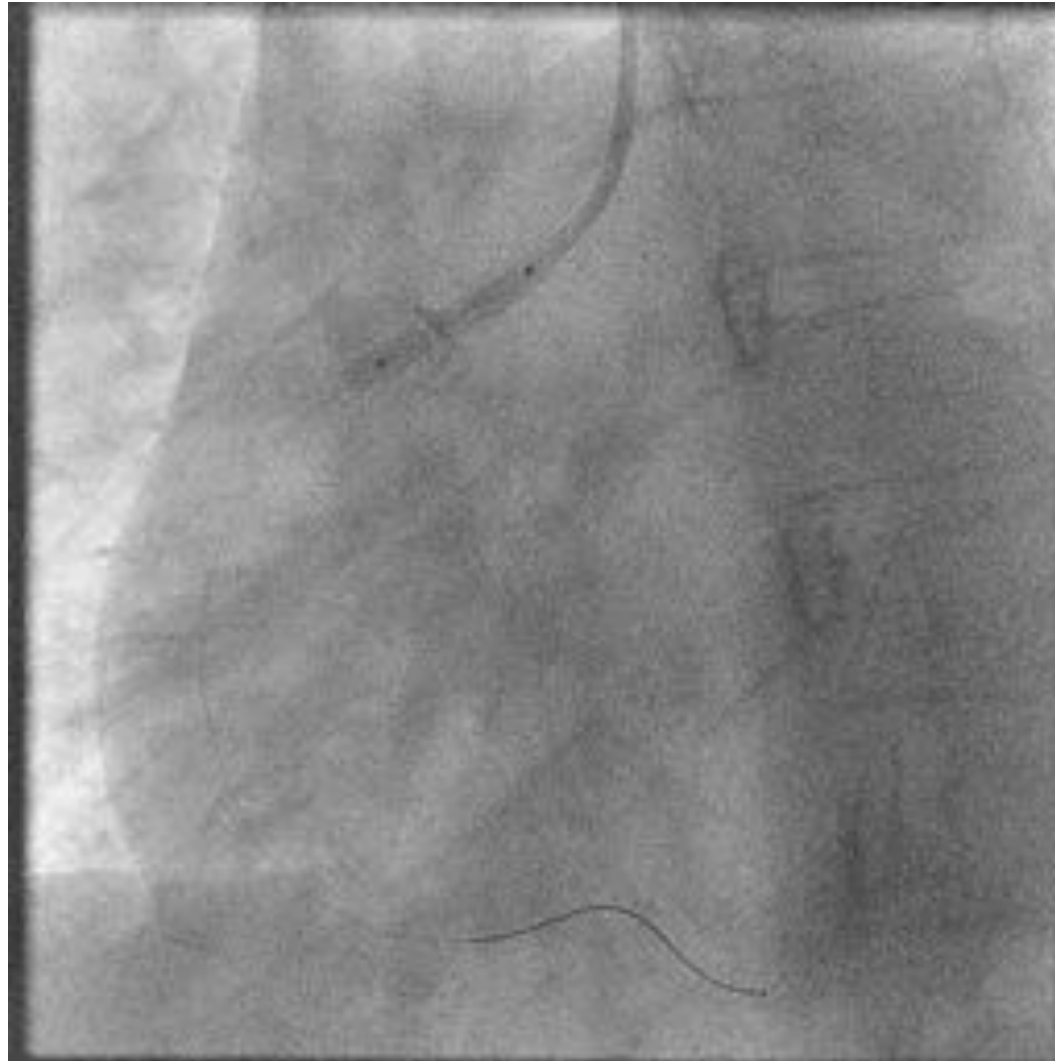
Post ballooning angiogram



**Covered stent (Jostent 3/19 mm) deployment
in proximal RCA inside the aneurysm**



Additional high pressure proximal dilatation



Initial result post covered stent deployment



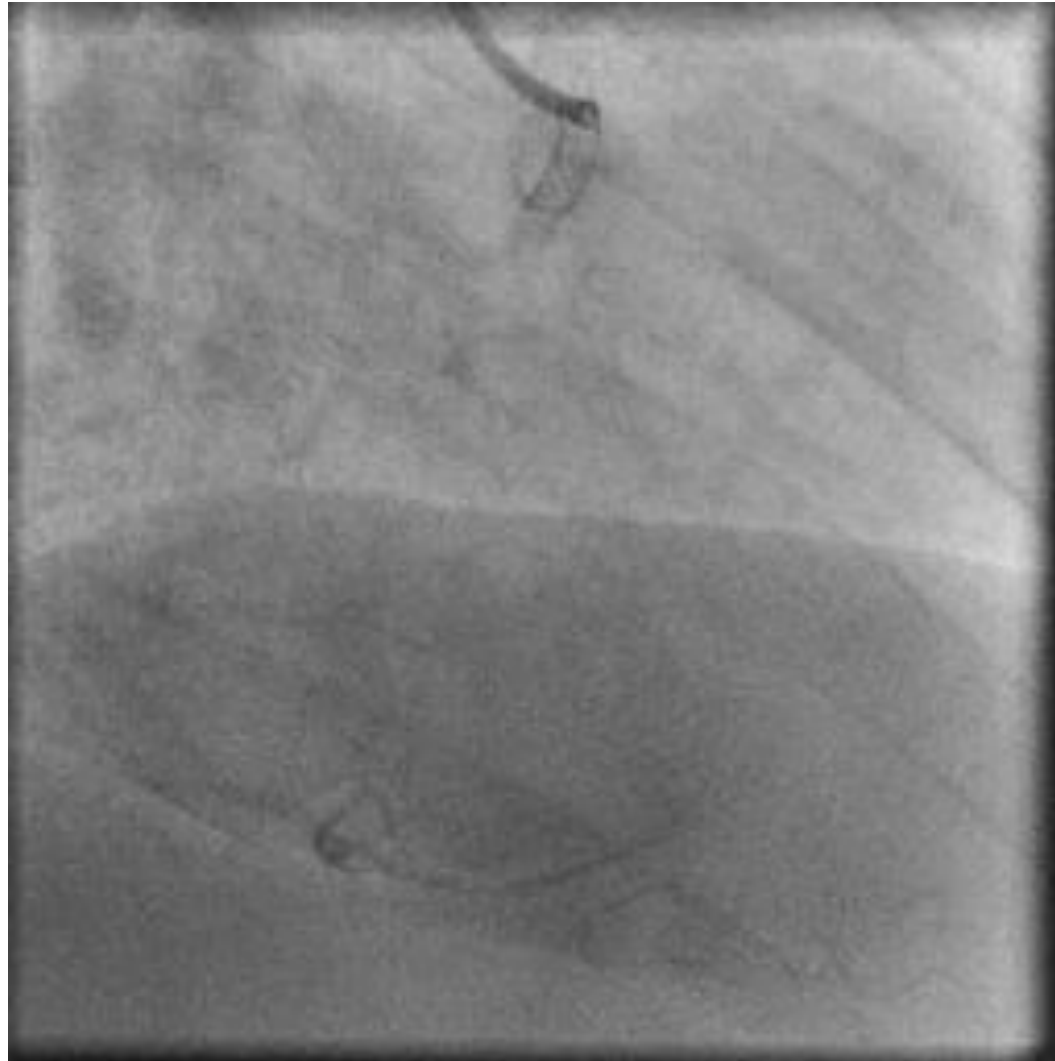
**Additional BMS (Driver 2/.75/8 mm) at
the distal end of the covered stent**



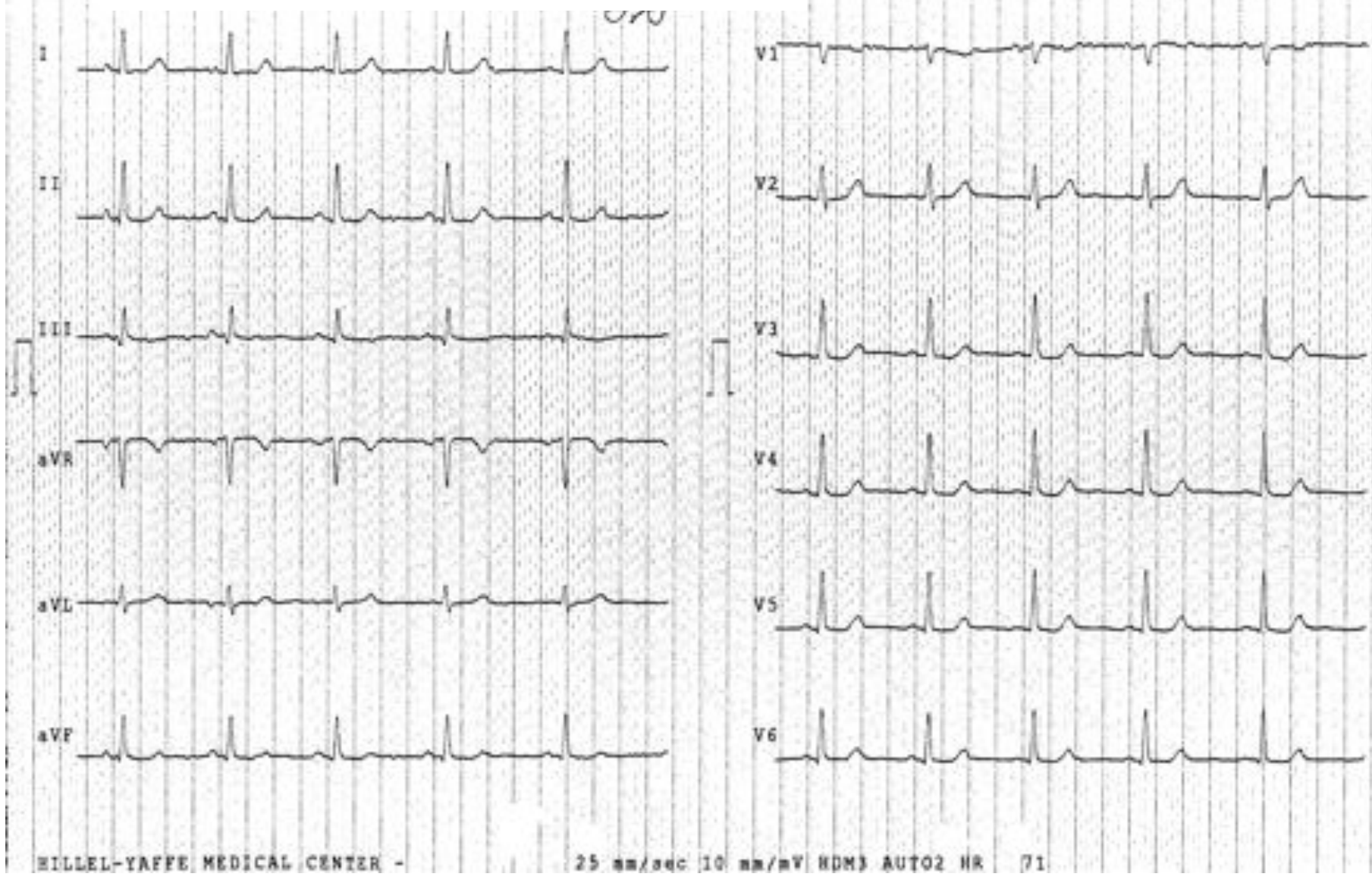
Final RCA angiogram (LAO)



Final RCA angiogram (LAO)



ECG following successful PCI to proximal RCA



- **Following the successful RCA revascularization, the patient became asymptomatic with only mild inferior hypokinesis**
- **One year after the procedure the patient with no cardiac symptoms and has good LV contractility**
- **No hyper-coagulation pathology was found**
- **Dr. Frimerman won first prize for this presentation at TCT in San Francisco 2009**

- **We believe that these cases demonstrates late presentation of peri-partum coronary complication**
- **A known prei-partum complication is a spontaneous coronary dissection, resulting in unstable angina and even coronary occlusion**
- **Rarely a dissection can progress to aneurysm formation with blood stagnation causing artery occlusion by thrombus**

Thank You!