Not a pleasant surprise… Should you question technology?

- Donor vessel thrombosis

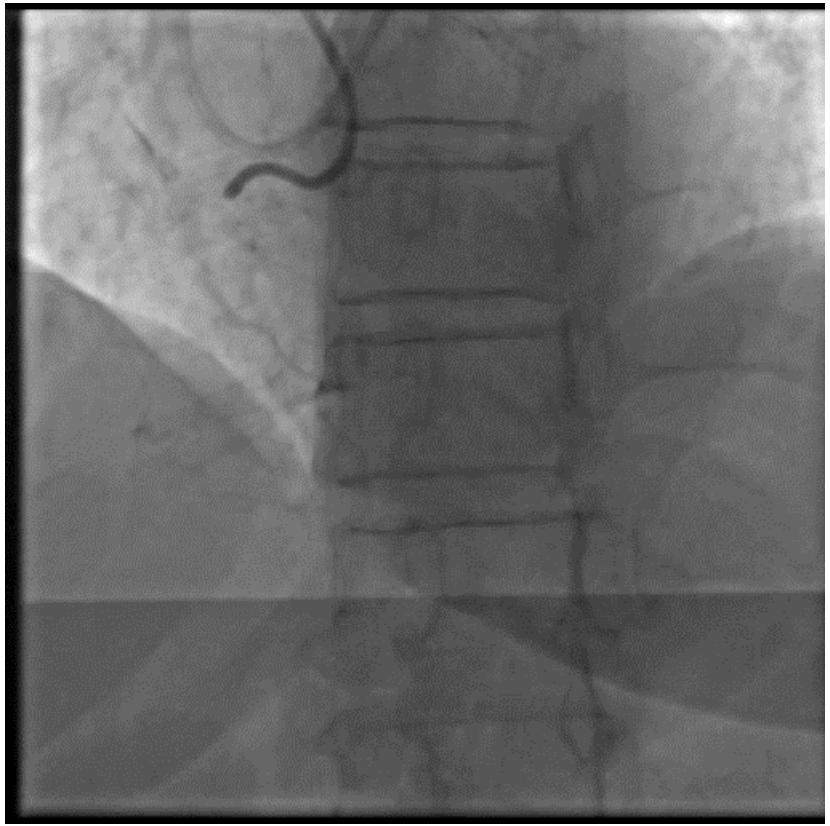
Case presentation

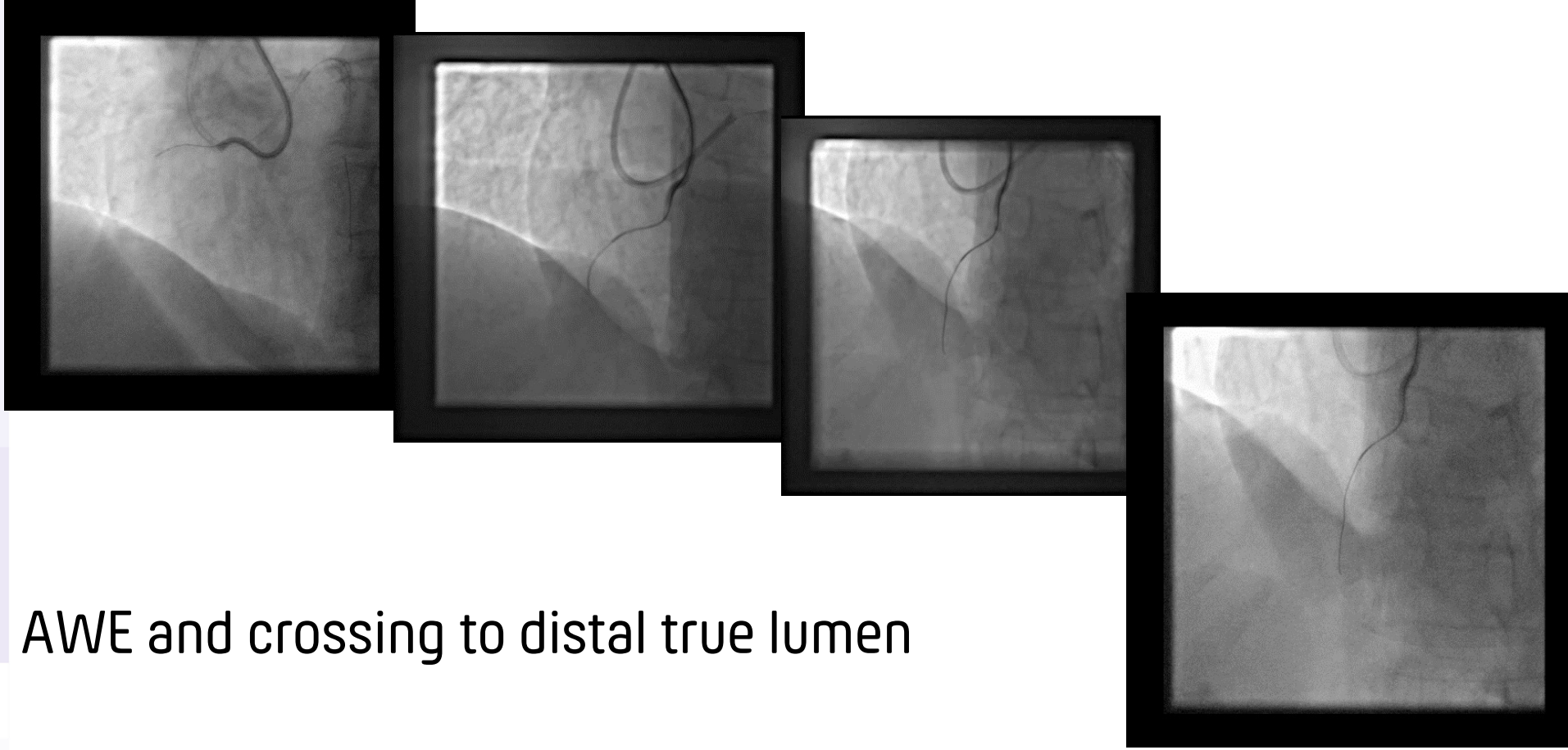
- Patient characteristics:
  - ✓ Female patient 62 years old
  - ✓ 155cm/62kg (BMI 25.8)
  - ✓ No CVD history
- Risk factors:
  - ✓ Ex-smoker, hypertension, hyperlipidemia
- Presented with NSTEMI
  - ✓ Coronary angiogram: Multiple severe lesions (90-95%) in the LAD and CTO RCA.
  - ✓ PCI LAD performed at index procedure (3xDES)

PCI LAD performed in the index procedure

One month later PCI CTO RCA

- Bi-radial access
- AL0,75 7F and XB3 6F

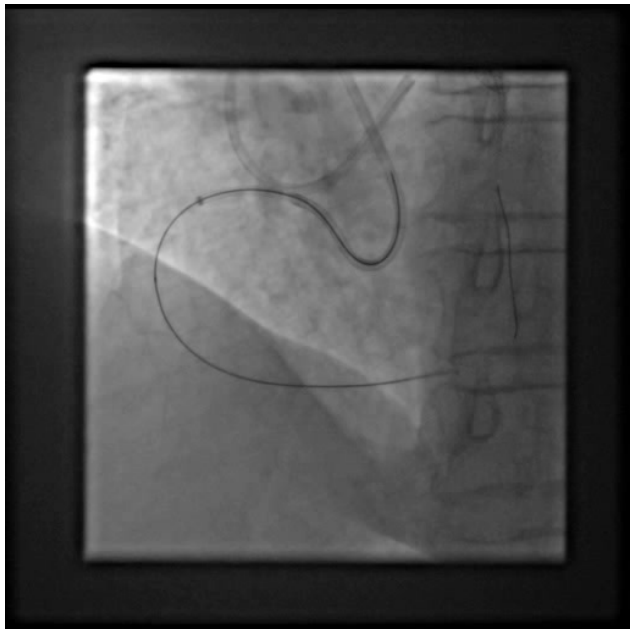


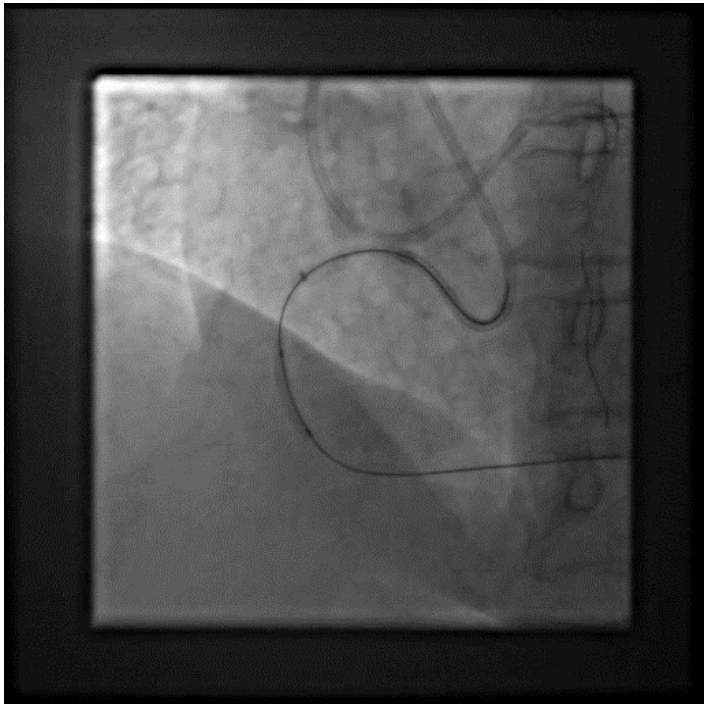


AWE and crossing to distal true lumen

- Microcatheter (Caravel) could not cross the lesion

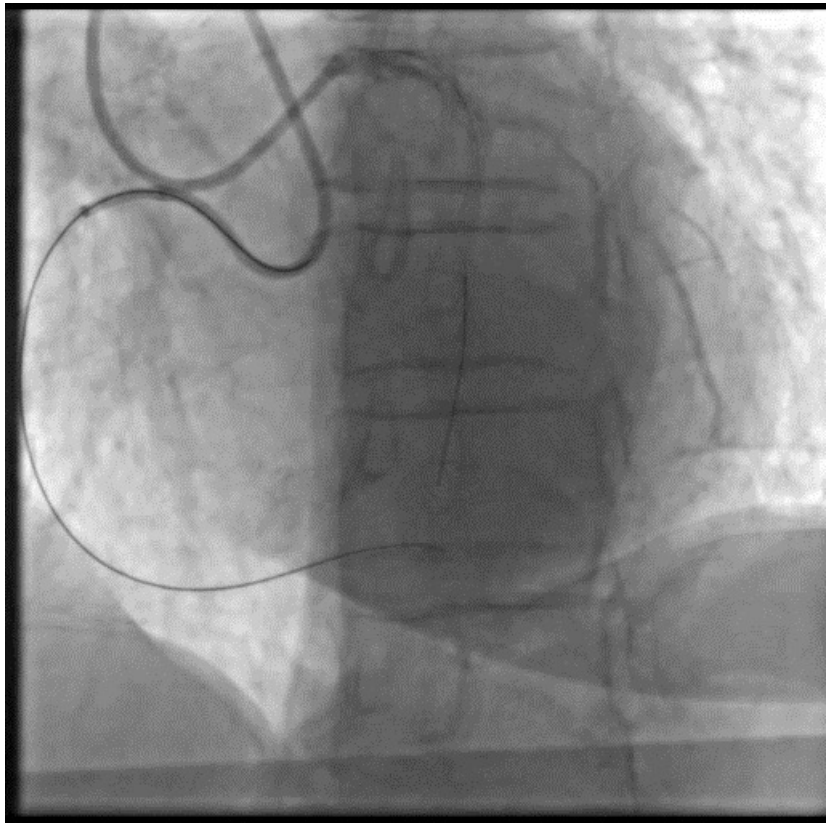
- With the use of guide-extension, dilatation with 0.75mm and 2.0mm balloons





What happened here??

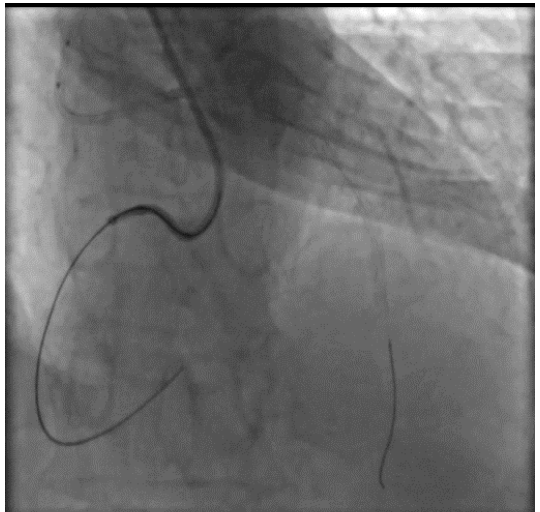
- Flow was restored to RCA and we were ready for stenting
- At this moment, patient developed chest pain, hypotension and eventually cardiac arrest
- We performed angiography and realized there was no flow in the LAD (thrombosis) at the site of the previous placed stents (1 month ago)

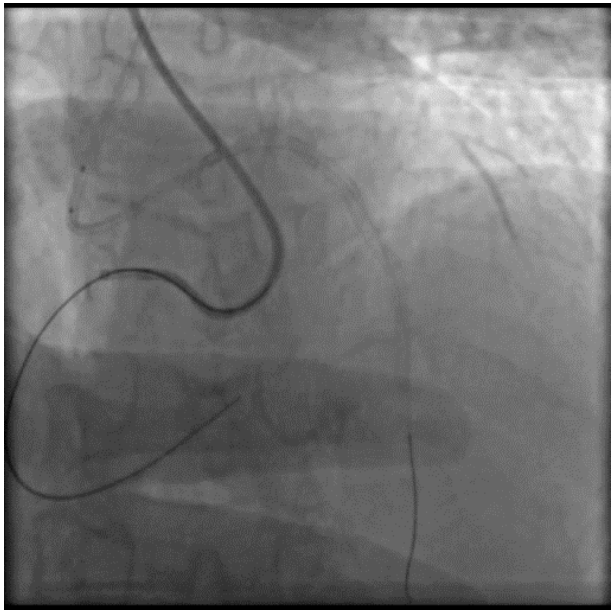


What happened here??

- Resuscitation efforts as well as efforts to restore LAD flow with NC balloon 3.0mm

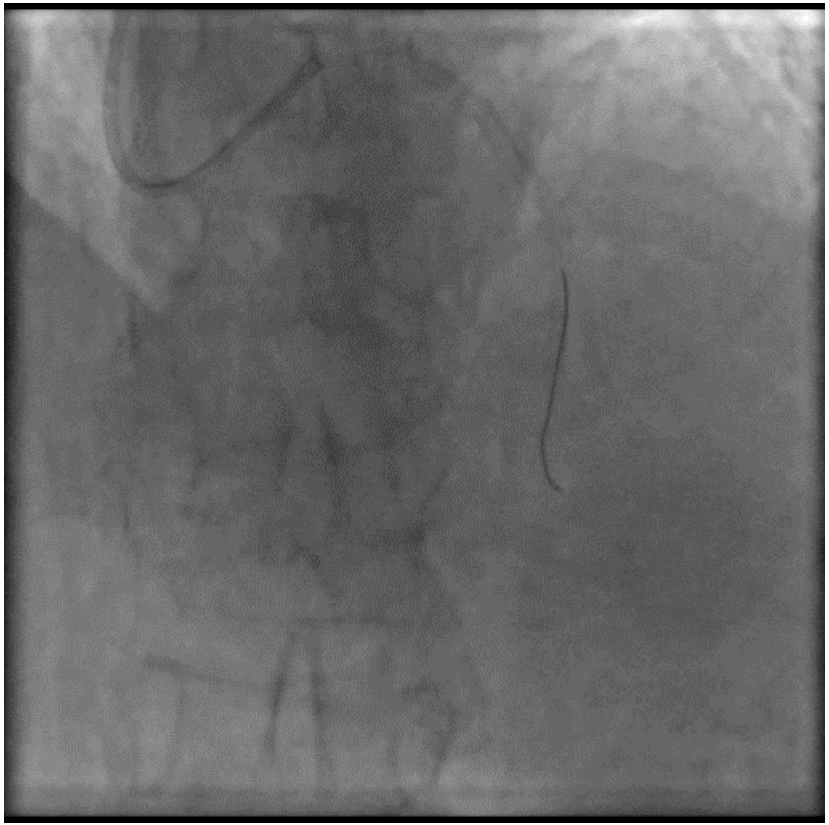
- i.v. administration of GP IIb/IIIa inhibitors and heparin





- LAD flow restoration and return of spontaneous circulation

- Discontinuation of the CTO PCI attempt



Aftermath evaluation

- Duration of procedure until the occurrence of the complication was approximately 1 hr.

- 5,000iu of heparin were administered at baseline and ACT measured at 40' with a result of 382sec.

- We were really concerned about the reasons of donor vessel thrombosis under extra-therapeutic ACT, so questions arose whether the calculated result of ACT was correct.

- Finally, after various other measurements we found that the ACT machine was giving us unreliable results.
  - ACT machine failure also confirmed by a specialist technician.

Take home messages and questions

- Safety wire in the donor vessel (that helped us a lot to act immediately and save our patient)

- Calibration at regular intervals of ACT machines

- Did the recent stents implantation in the LAD play a role in the occurrence of donor vessel thrombosis??
  - If so, when is finally the right time to schedule such an operation??