# «Culotte-technic during STEMI-emergency PCI»

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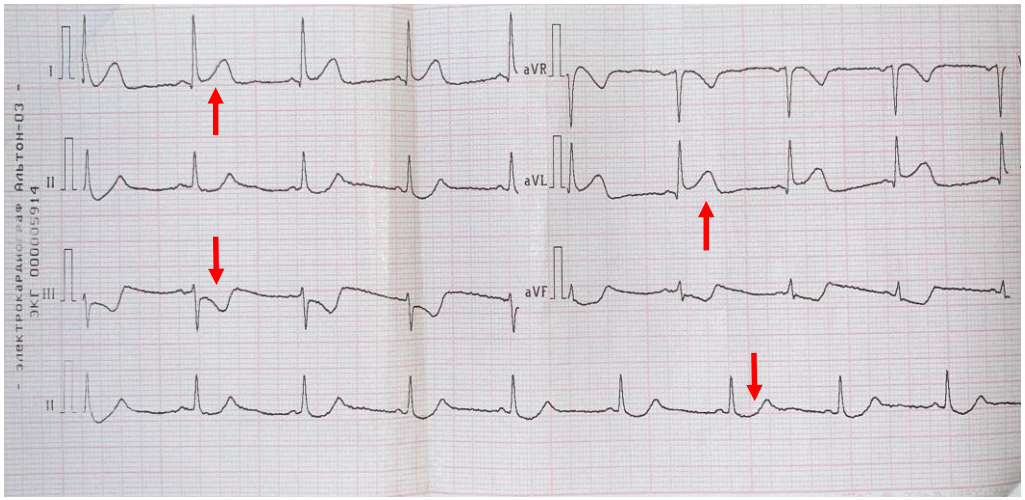
# Potential conflicts of interest

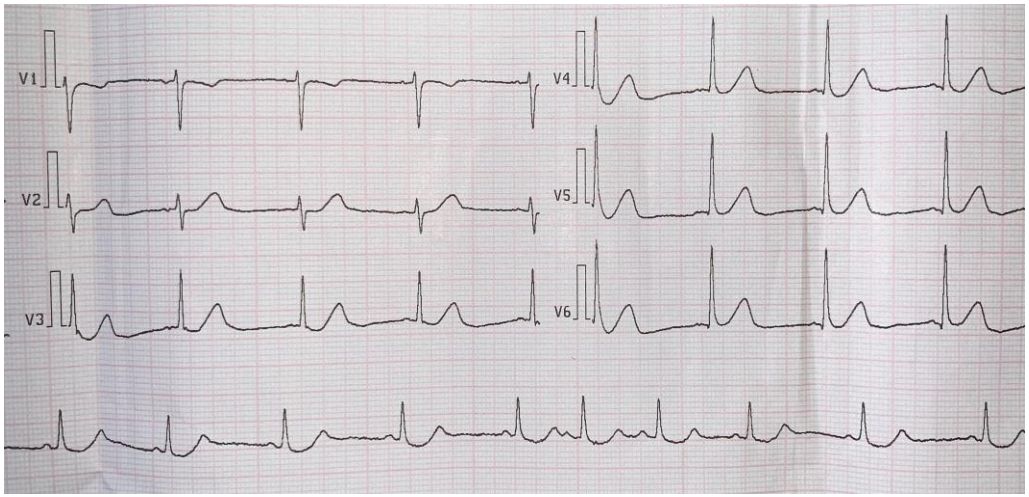
Speaker's name : Mikhail Strutsenko, Moscow

☑ **I do not have any potential conflict of interest**

# Case summary




ST-elevation I, aVL; ST depression II, III, aVF




- 53 y.o. female patient, admitted in CCU with STEMI, ~ 3 h from symptoms onset
- Clinical presentation: ongoing retrosternal chest pain, profuse sweating, nausea, weakness
- HR – 84 min, BP 100/60 mm Hg. SaO2 – 96%
- No prior major CV events
- Arterial hypertension, Diabetes type 2

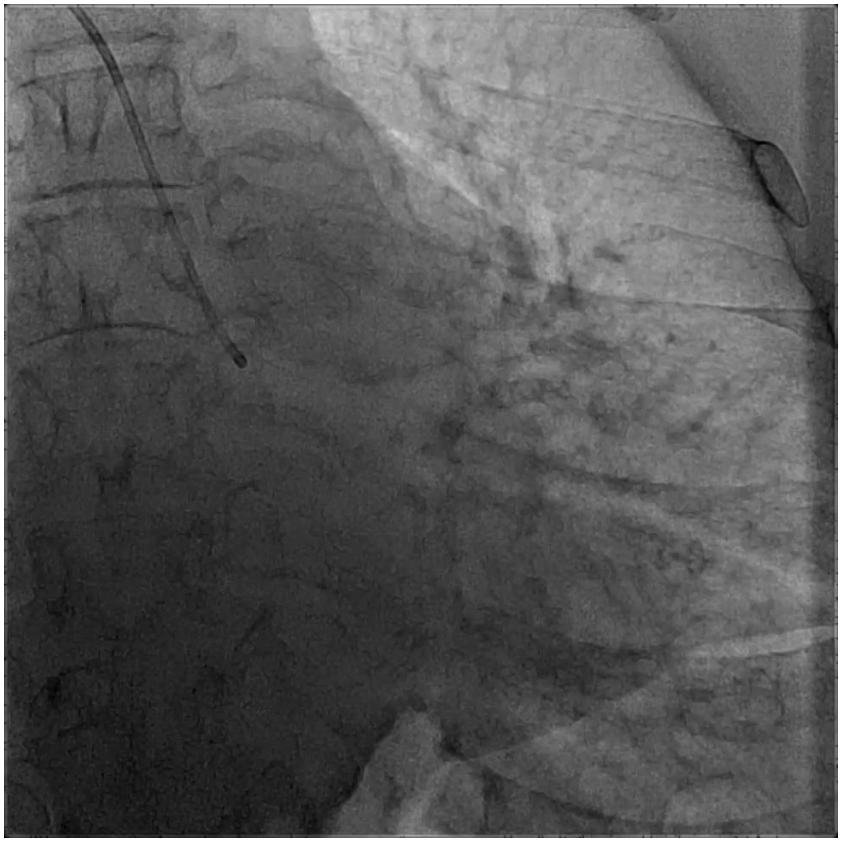
**Lab test & Echo:**

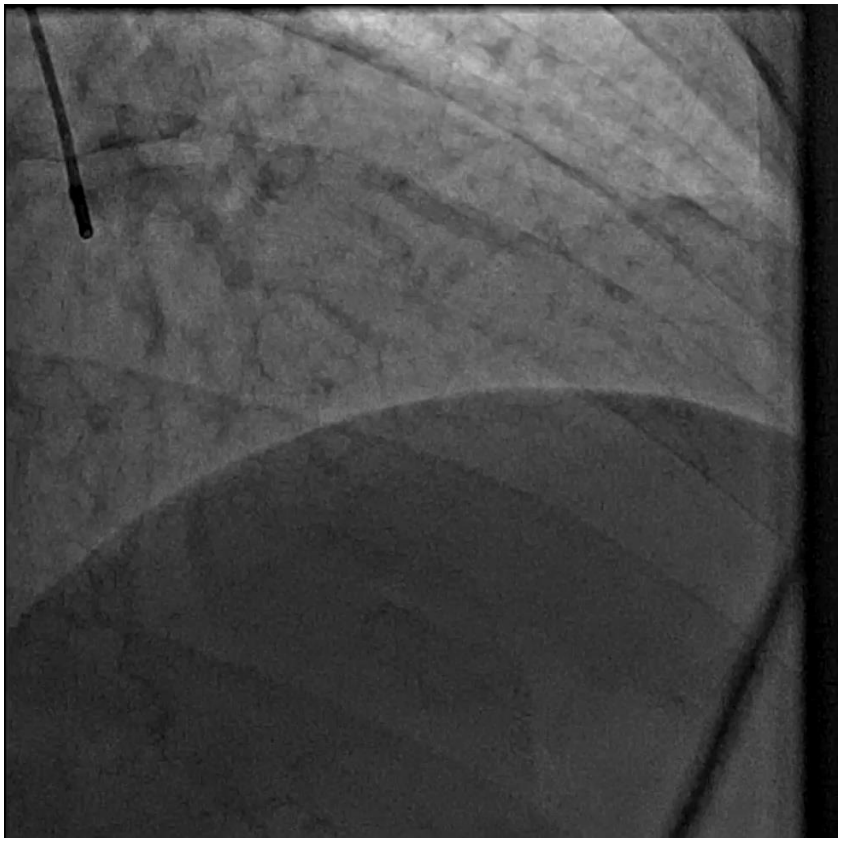
- Trop I > 0,5 ng/ml
- LV EF – 56%. Hypokinetic Anterior & lateral walls

**Pre hospital therapy:**

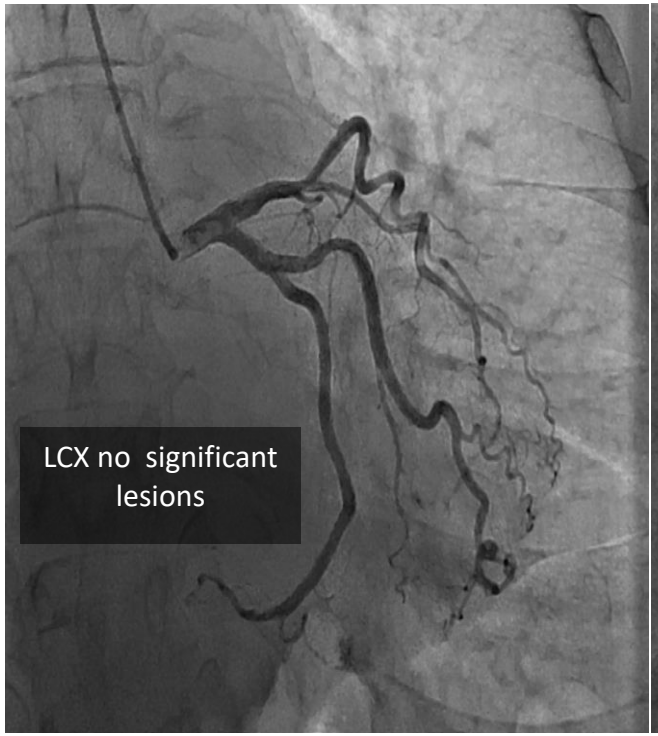
- Morphine IV
- Dual antiplatelet therapy - pre load with clopidogrel 300 mg & acetylsalicylic acid 100 mg;
- High flow oxygen

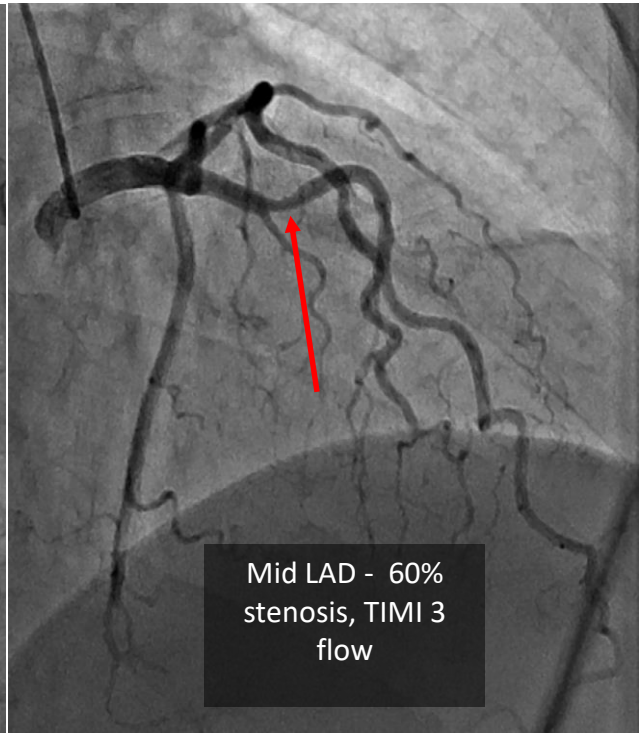
# Coronary Angiography - LCA

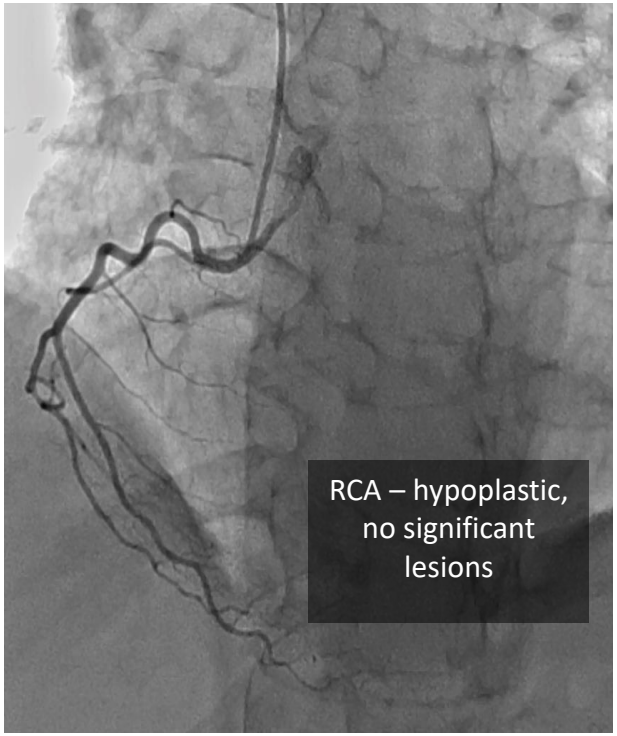




# Coronary Angiography



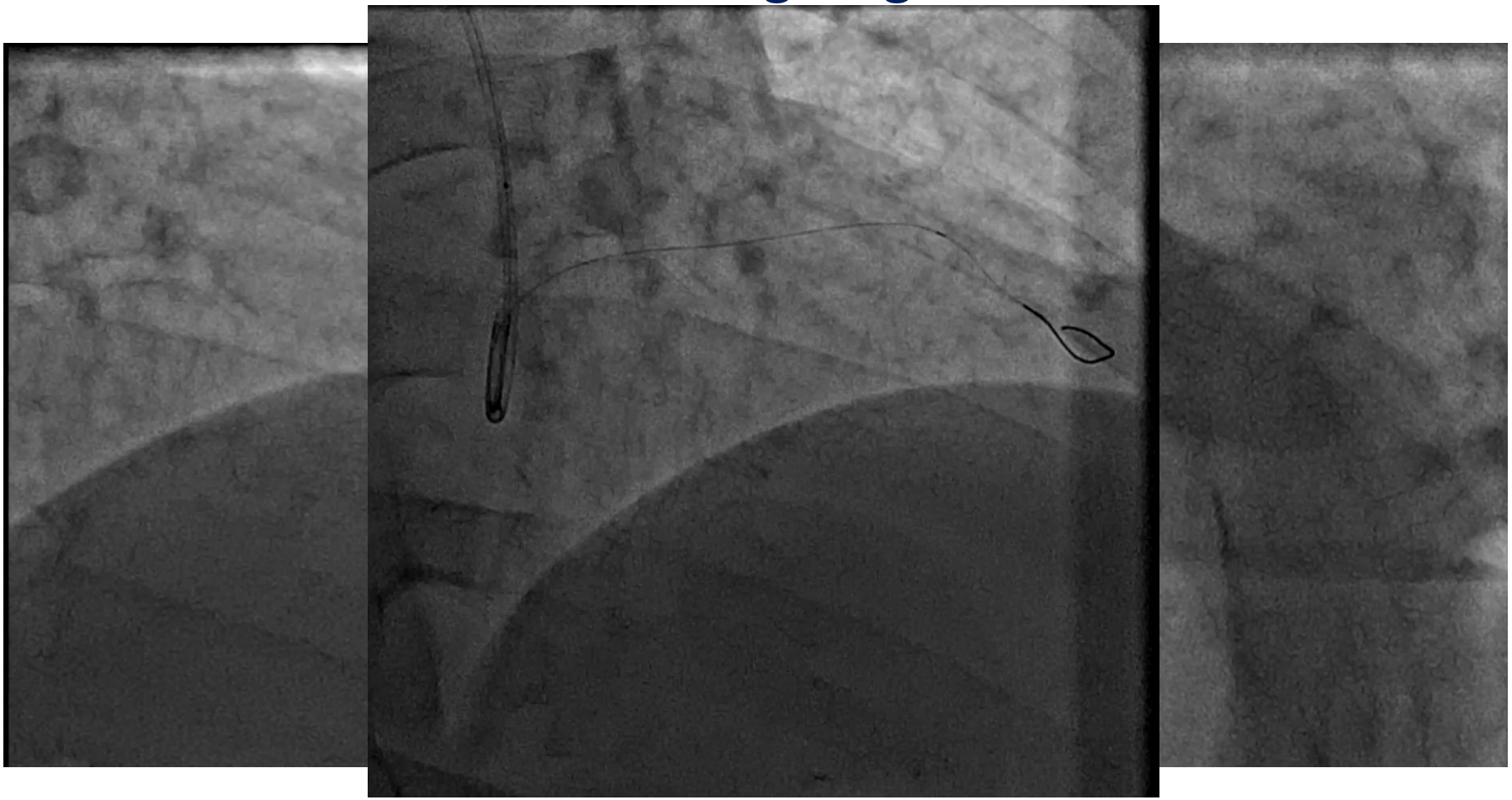




**Where is an infarct related artery ?**

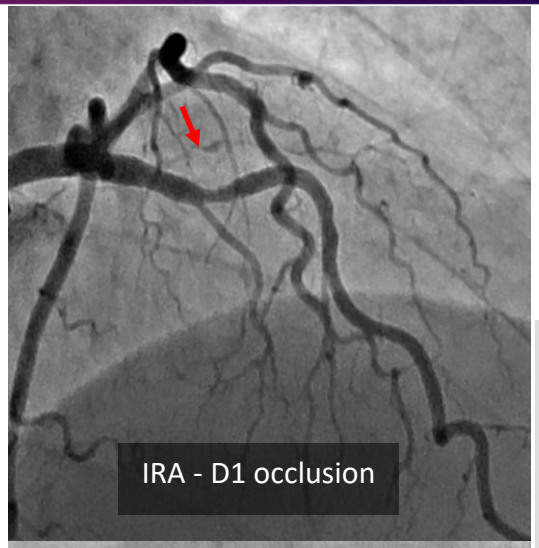
# Coronary Angiography

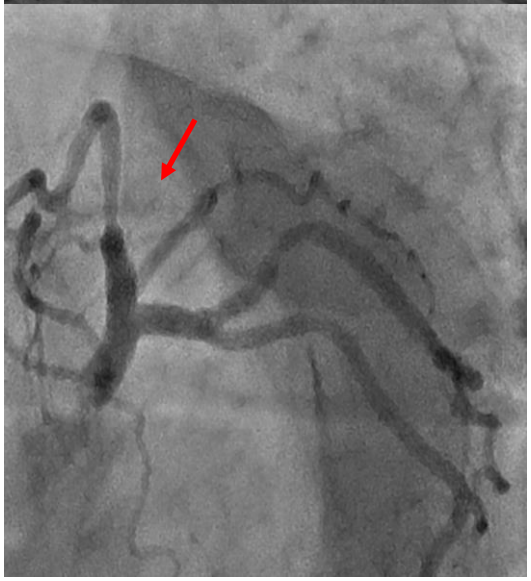
## Watch this angio again of LCA



# What optimal tactics to choose for thrombotic occlusion of DB ..

# Large bifurcating single diagonal branch (D1): totally occluded at the ostia



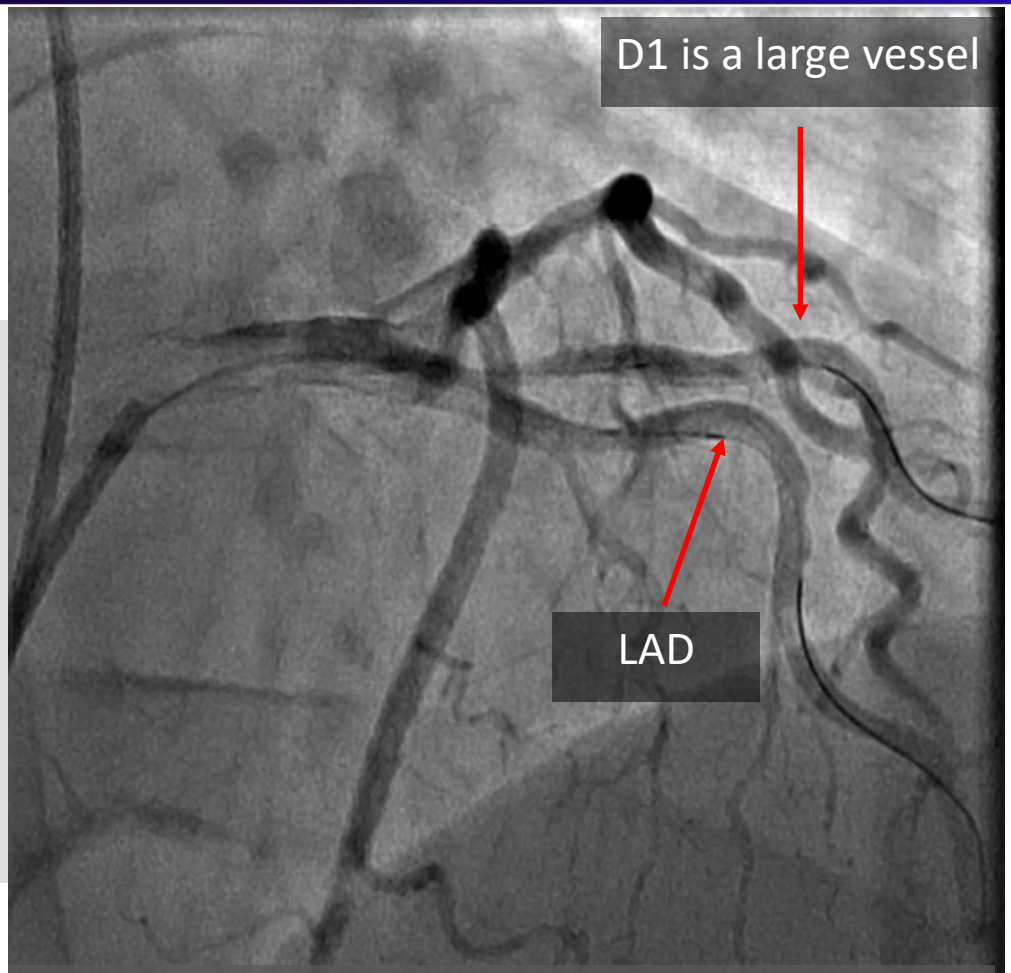



**PPCI:**

**XB 3,5 6 F GC**

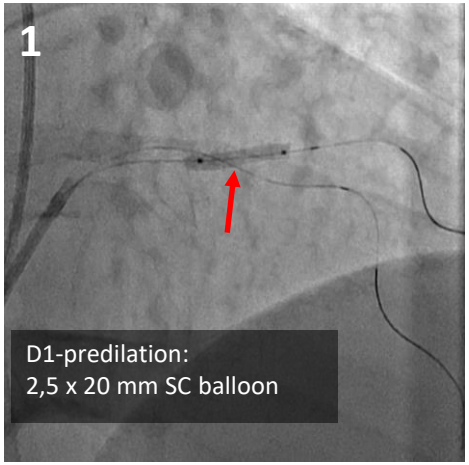
**Both LAD & D1 wired by BMW guide wires**

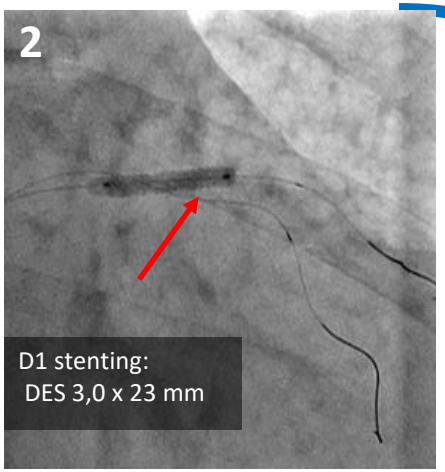
**D1 was pre-dilated with 2,5 x 20 mm SC balloon**

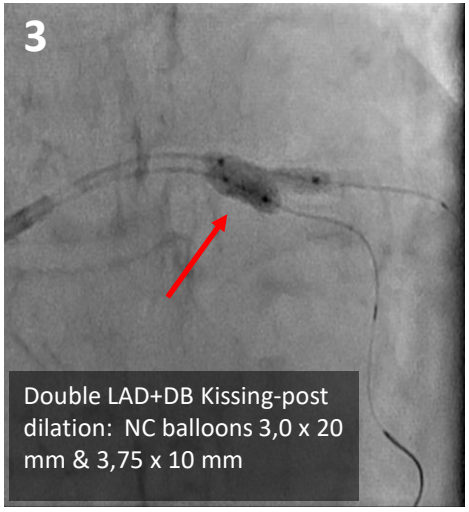


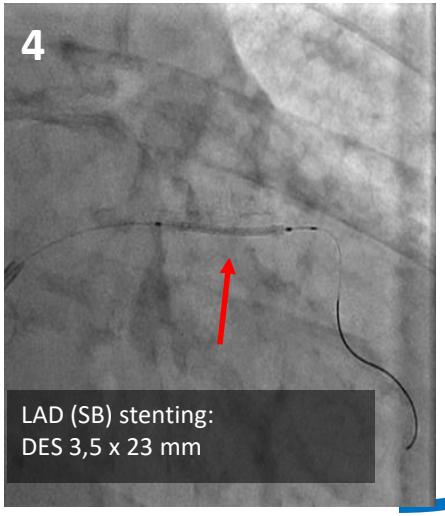

**Type 0-1-1 lesion, diameters of LAD and D1 are similar**

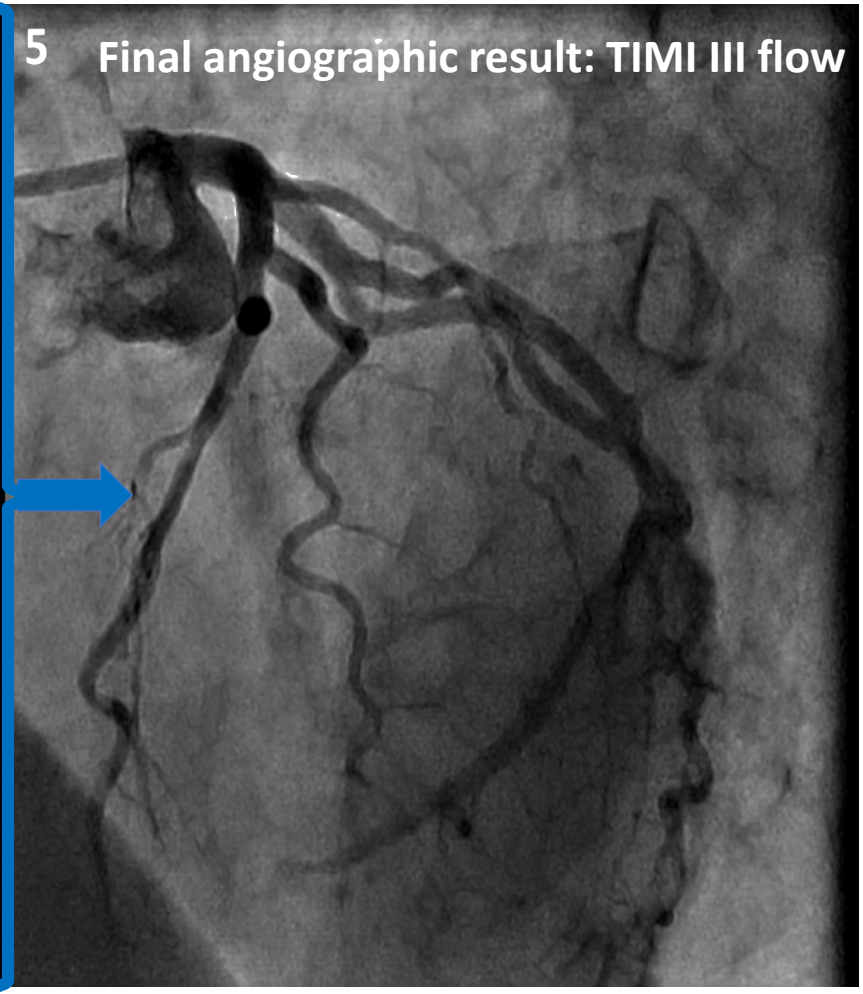
# Culotte-stenting technic



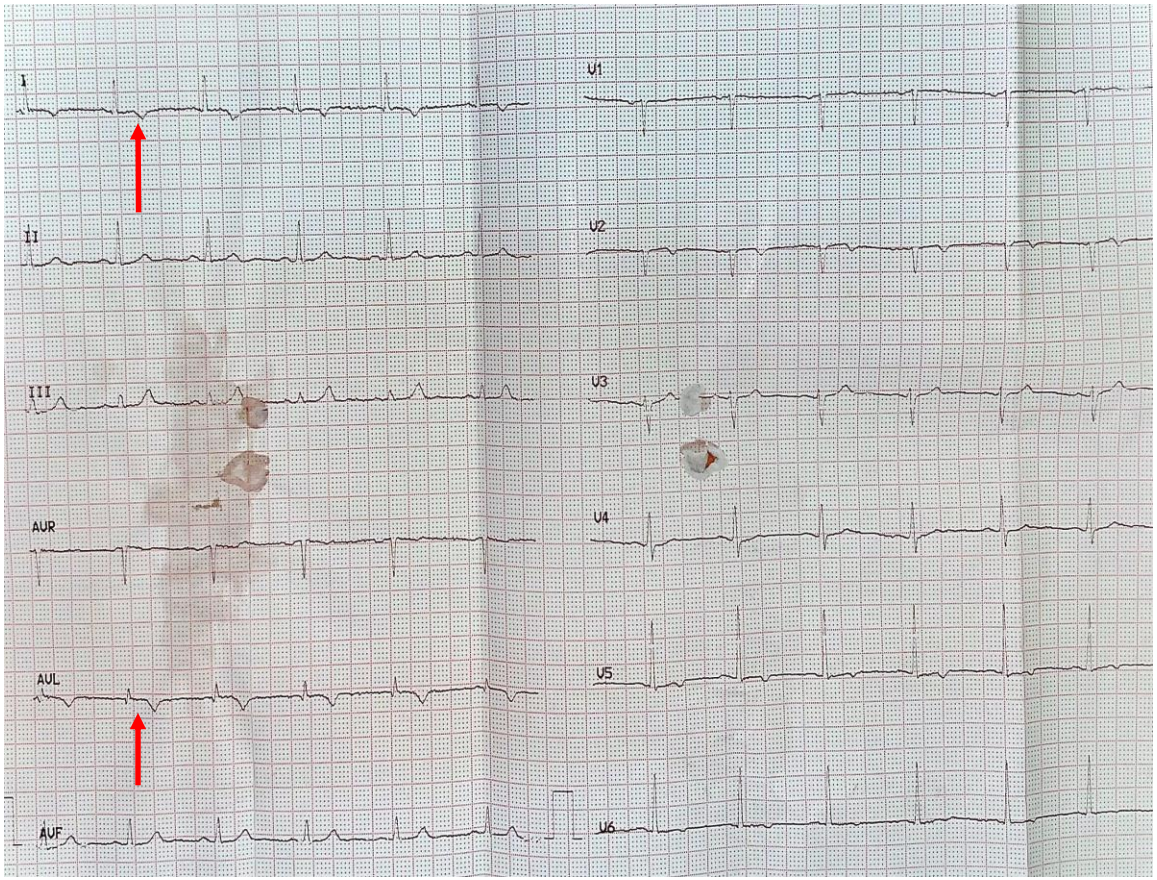



# Clinical result




Complete ST-resolution I,aVL,V4-V6

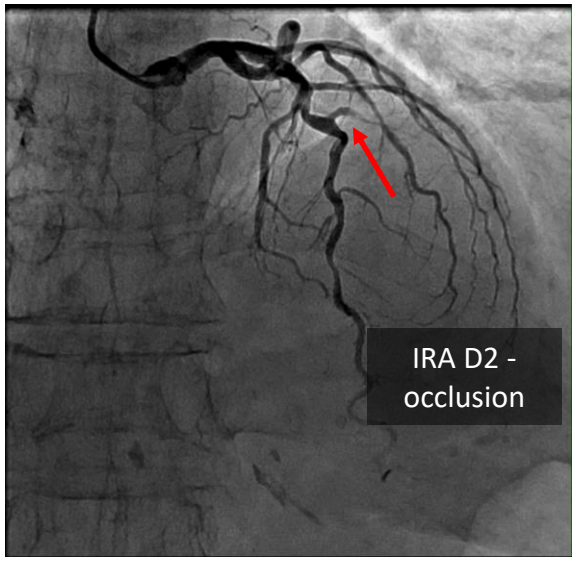
- **FU Echo – LVEF 56%**
- **Restoration of LV wall contractility**

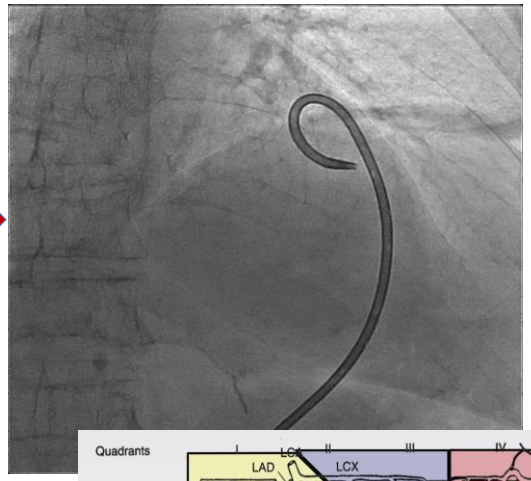
**Continue of antithrombotic therapy:**

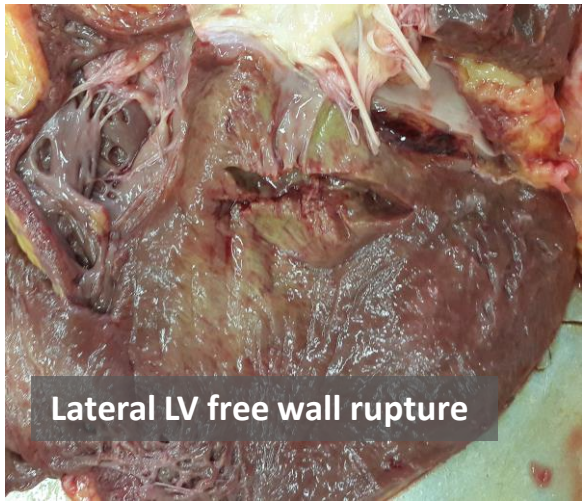
- Dual antiplatelet therapy: Clopidogrel 75 mg + ACA 100 mg;
- B – blockers
- ACA
- Statins
- Discharged on 8$^{th}$ day post PCI

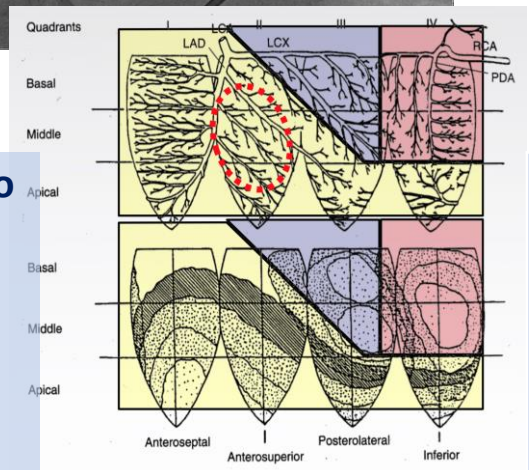
**the patient was discharged from the hospital on the 8th day in a satisfactory condition**

# another reason for second stent..






- **Another Patient with Similar Case – two weeks before:**
- **Antero-Lateral myocardial infarction STEMI**
- ***Late hospitalization – 3 days from symptoms onset***
- **Post infarct angina**

***Even "small" D2 branch occlusion (diameter* <2,5mm; length<73mm) *can be a cause of transmural necrosis and fatal myocardial rapture***

# Conclusions

1. **Single-stent strategy not always possible in STEMI bifurcation PCI**
2. **Sometimes we just can't simply "Keep It Simple, Swift and Safe" (KISSS)!**
3. **Two-stent technique for LAD-D1 bifurcation PCI in STEMI can be crucial**
4. **Culotte technique is suitable for large single D1 IRA stenting via radial route**

*Key points for future research:*

✓ Better understanding of Culotte technique as a single side branch saving strategy in STEMI patients

# Thank you for listening