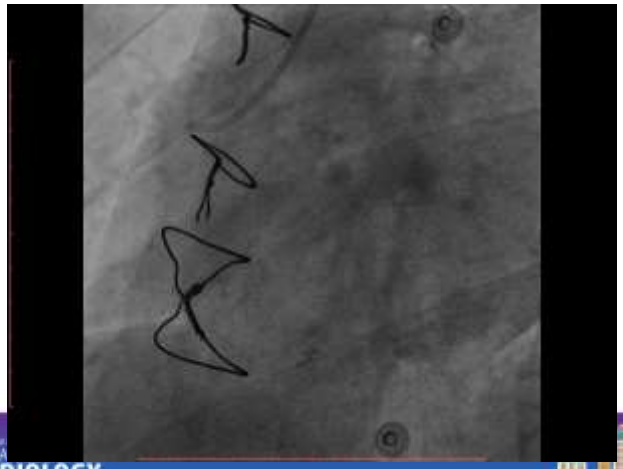
Primary PCI in POST-CABG STEMI

Tarek Abdel-Hameed Kafafy, MD, PhD, FESC

Lecturer of Cardiovascular medicine

Assiut University

- A 48 years old male patient
- Known to be hypertensive, not diabetic
- Known cardiac with prior CABG 2 years ago.
- LIMA→ LAD, and SVG→ RIM.
- Presented with TCP 2 hours.
- ECG: Anterior STEMI
- Hemodynamically stable.



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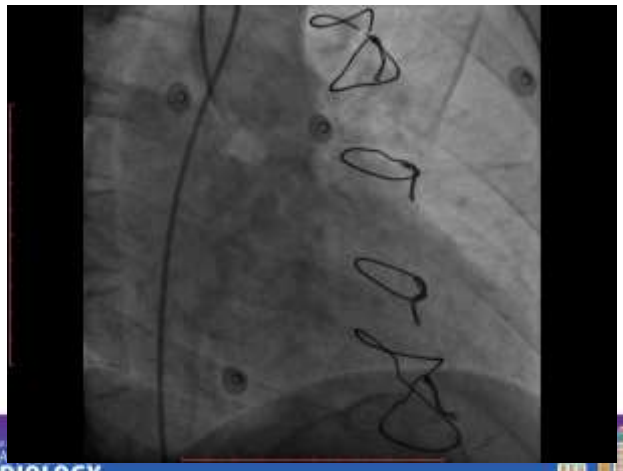

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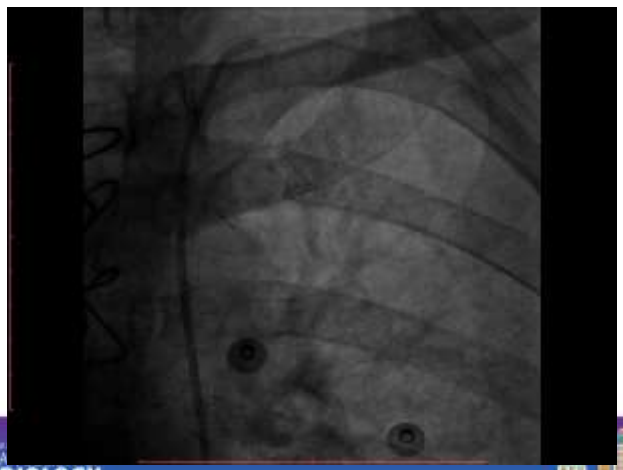
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Challenges:

- Unclear Culprit.

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Challenges:

- Unclear Culprit.
- Difficult tortuosity.

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Challenges:

- Unclear Culprit.
- Difficult tortuosity.
- Distance to lesion (Shorter GC)

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How many percent of you have ever notified the length of guiding catheter…

…balloon and stent catheter?

Standard Lengths in CVL

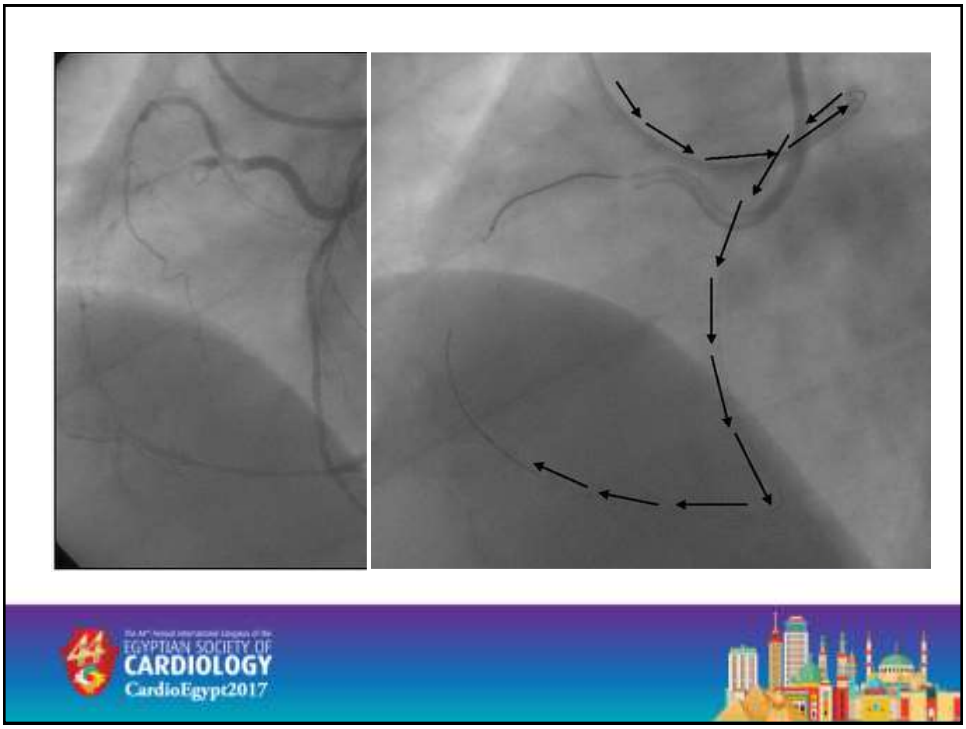
- Standard guiding catheter: ≈ 100cm
- Mother-n-Child guiding catheter (ST 5F) 120cm
- Y-connector ≈ 6-10 cm
- Balloon catheter (PTCA) ≈ 135-145 cm
- Stent catheter (PTCA) ≈ 140-145 cm

So, in common setting, the effective/usable length of PTCA catheters are ≤ 130cm and the longest stentable distance is 25-30 cm from LCA/RCA ostium.

Usual PTCA/stent catheter

• Catheter for Boston's stent (Promus)	140++ cm
• Catheter for Terumo stent	145cm
• Catheter for Boston's stent	144 cm
• Catheter for BioSensor's stent	142cm
• Catheter for Sorin's stent	142cm
• Catheter for Cordis's stent	140cm
• Catheter for Medtronic's stent	140cm
• Catheter for Biotronic's stent	140cm
• Catheter for BBraun's stent	138cm
• Catheter for Abbott's stent	unknown

What to do if we need to do PCI further down?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Solution for stenting far…

① Deep seat the guiding catheter in the coronary or use the modified mother-n-child technique

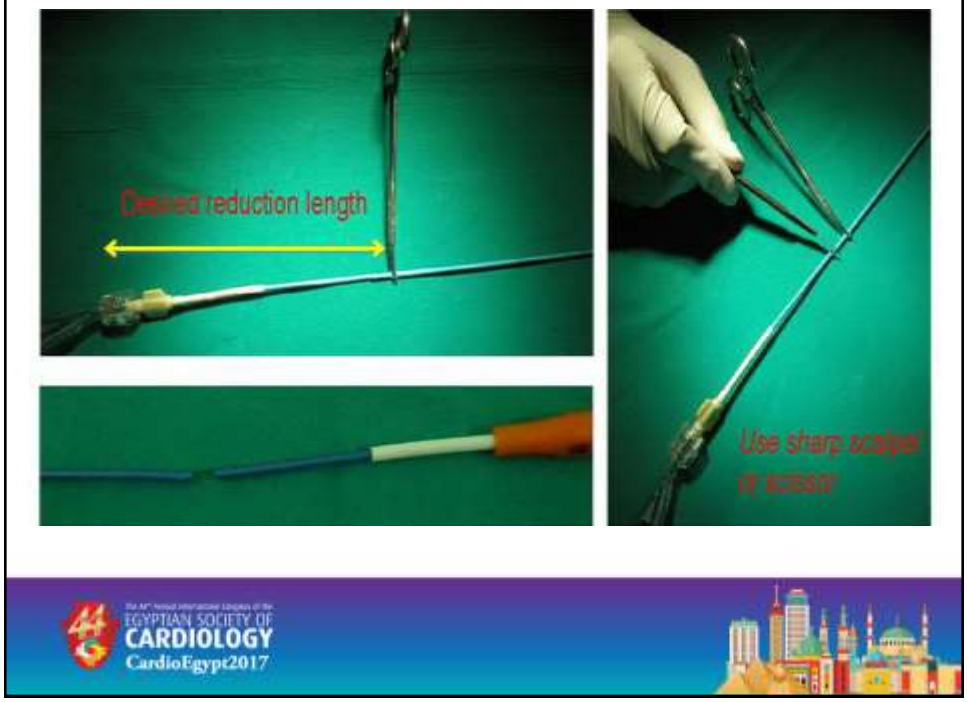
② Longer balloon catheter (145-150 cm)

③ Specially manufactured shorter guiding catheters

④ Shortening of the existing guiding catheter

Equipment required

1. Standard sheath that is one French size smaller than the GC in place (e.g. 5F sheath for a 6F GC in use)
2. Dilator of a sheath that is one French size larger than the GC in use (e.g. 7F dilator for a 6F GC in use)
3. Initial GC itself


Desired reduction length
Use sharp scalpel or scissor
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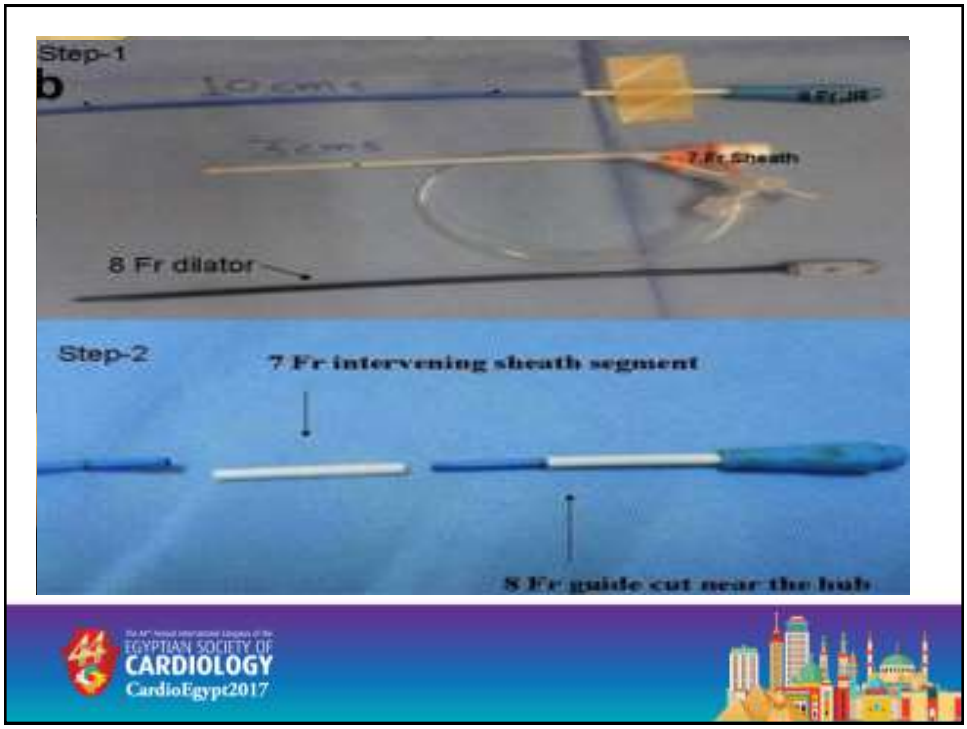
Step-1
b
7 Fr Sheath
8 Fr dilator
Step-2
7 Fr intervening sheath segment
8 Fr guide cut near the hub
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Challenges:

- Unclear Culprit.
- Difficult tortuosity.
- Distance to lesion.
- Inability to advance the balloon (tough curves).

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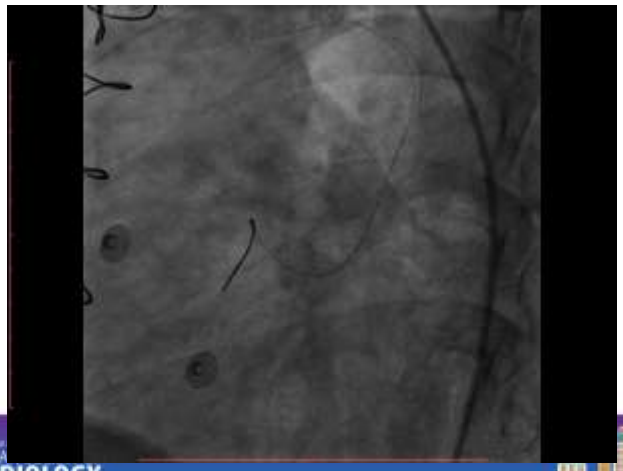

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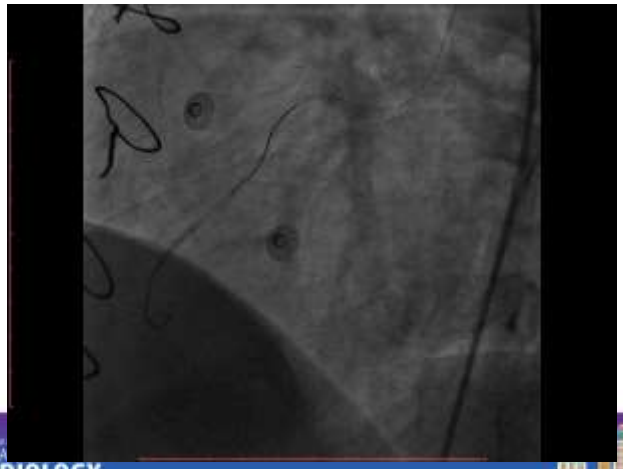
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Challenges:

- Unclear Culprit.
- Difficult tortuosity.
- Distance to lesion.
- Inability to advance the balloon (tough curves).
- Severe spasm (accordion effect)

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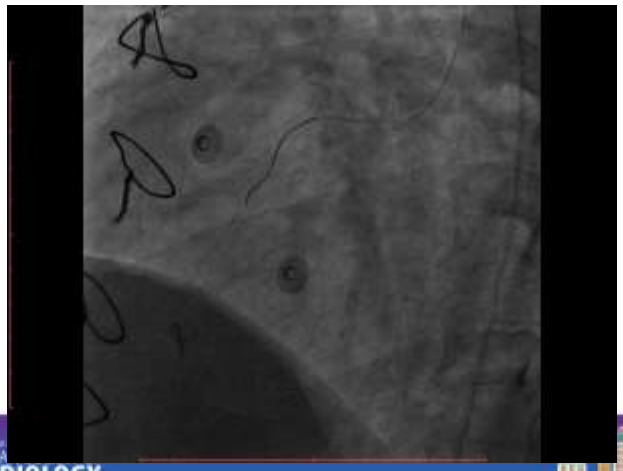

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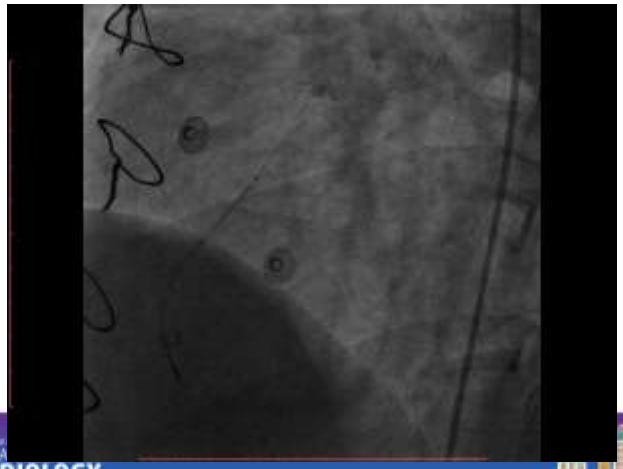
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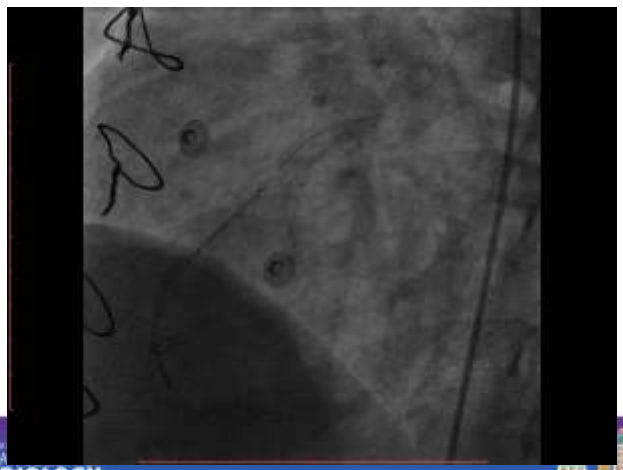
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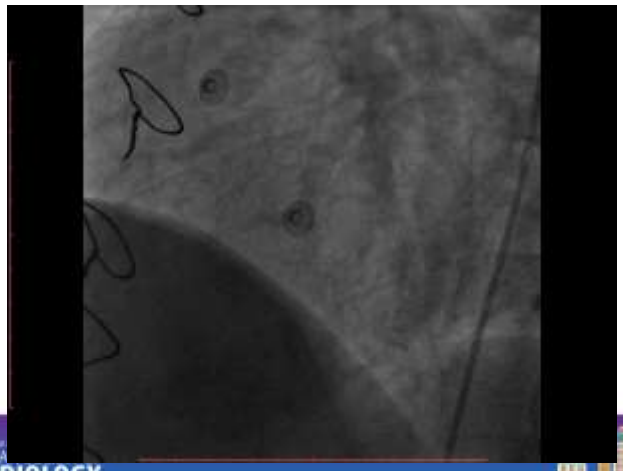
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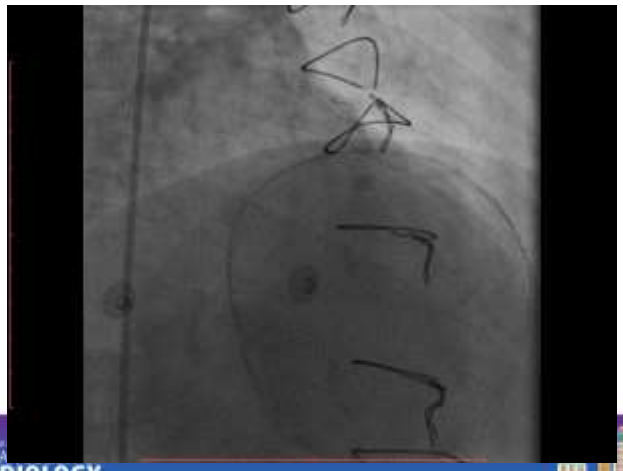
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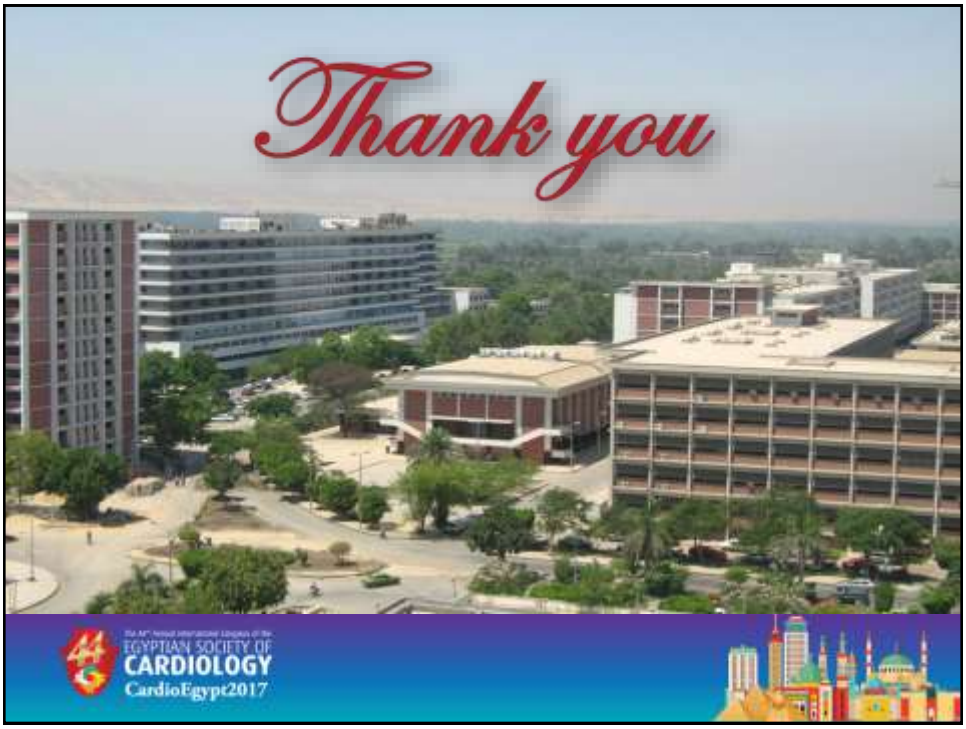
Finally!!

- Patient had a smooth hospital recovery.
- Discharged the day after on ticagrelor and aspirin, along with other medications.

Take home messages:

- Always search carefully for the culprit, especially in post-CABG patients.
- Consider different options to deal with tortuosity (dedicated wires or buddy wires).
- Keep 90 cm guiding catheters in your armamentarium.
- Otherwise, you should learn how to shorten a regular GC.
- Be patient as long as your patient is.


Thank you
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