

Techniques incontournables de l'angioplastie coronaire

Occlusions coronaires chroniques

Y. Louvard, ICPS, Massy, Générale de Santé-
Ramsay, France

Antegrade approach

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Vascular approach

RCA bridged CTO

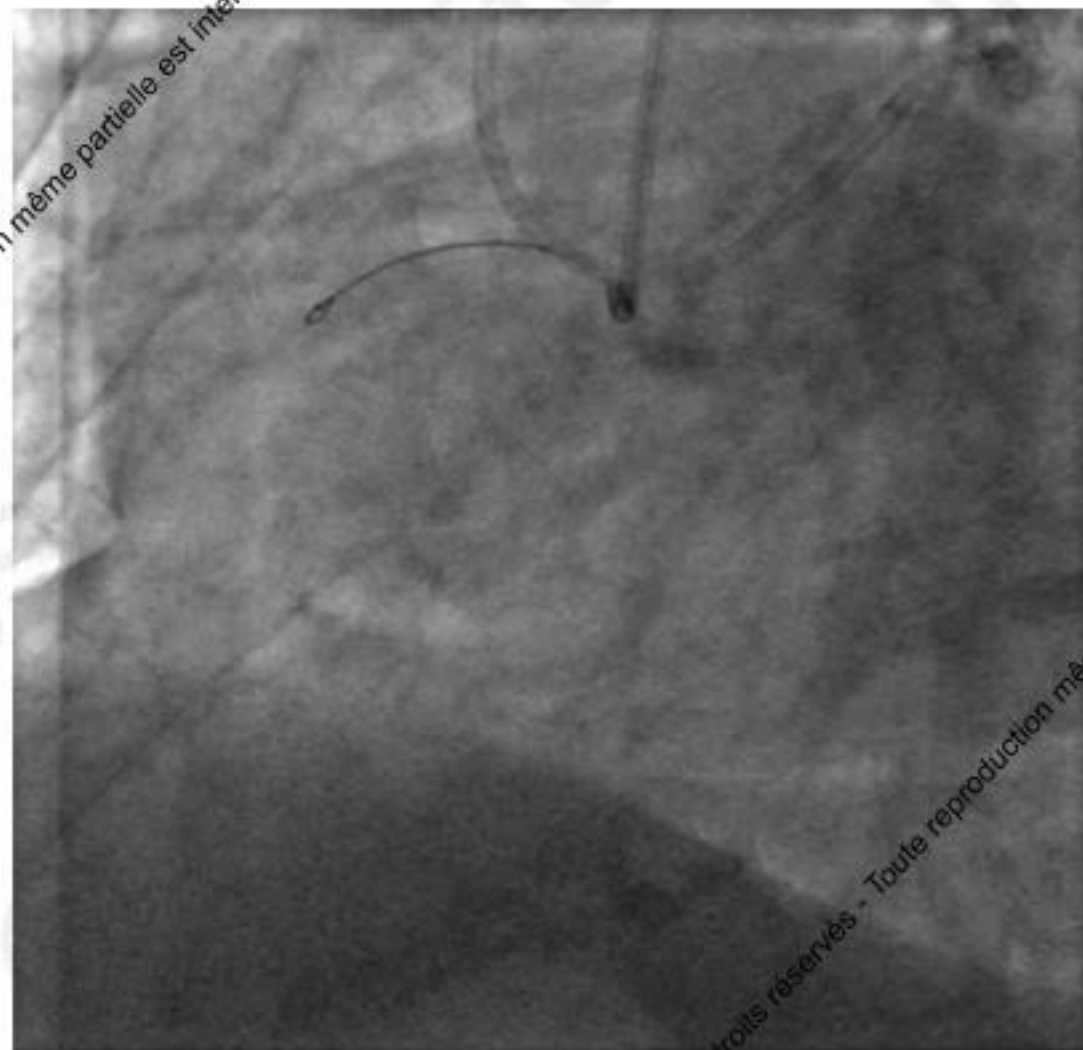
Double radial 6F

Controlateral injection

EBU 4

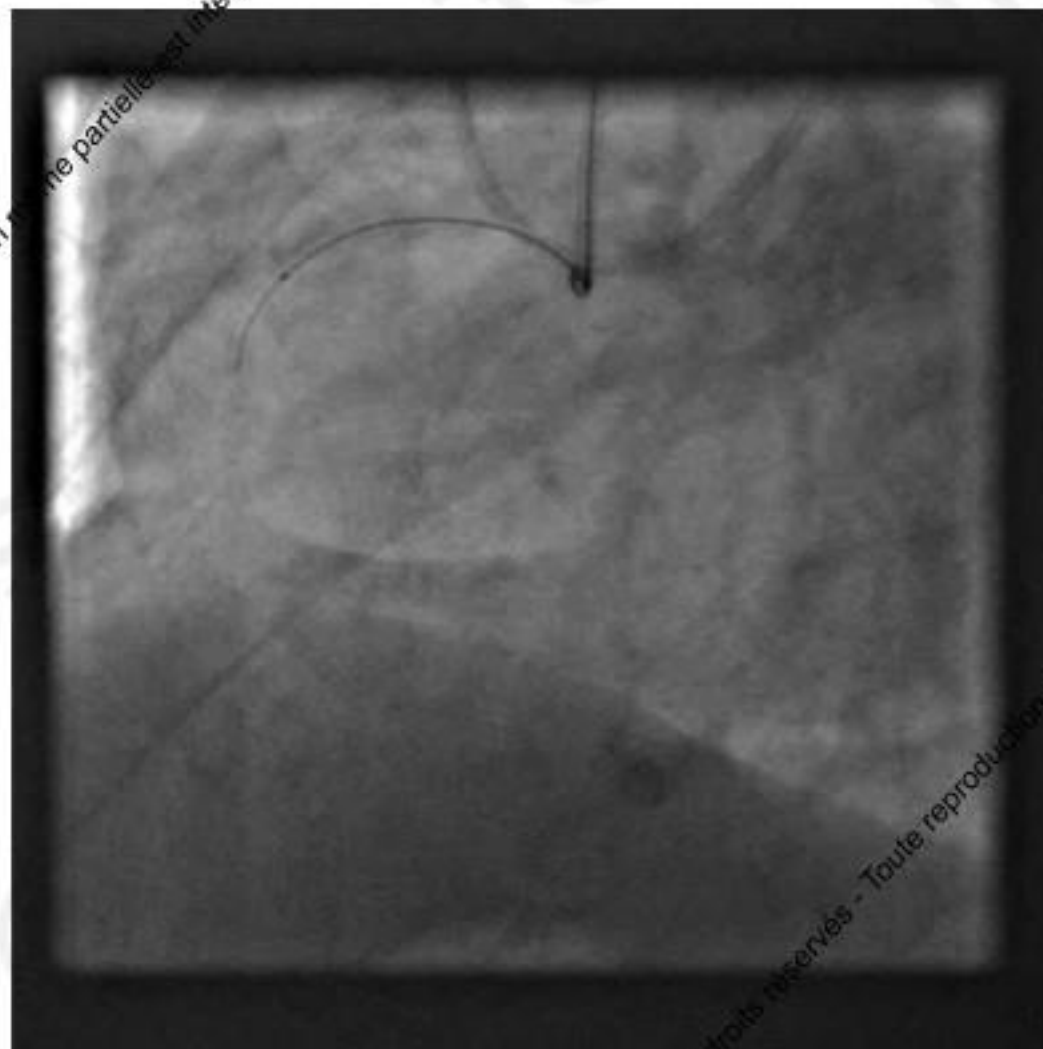
JR 4

BMW + *Finecross*



RCA bridged CTO

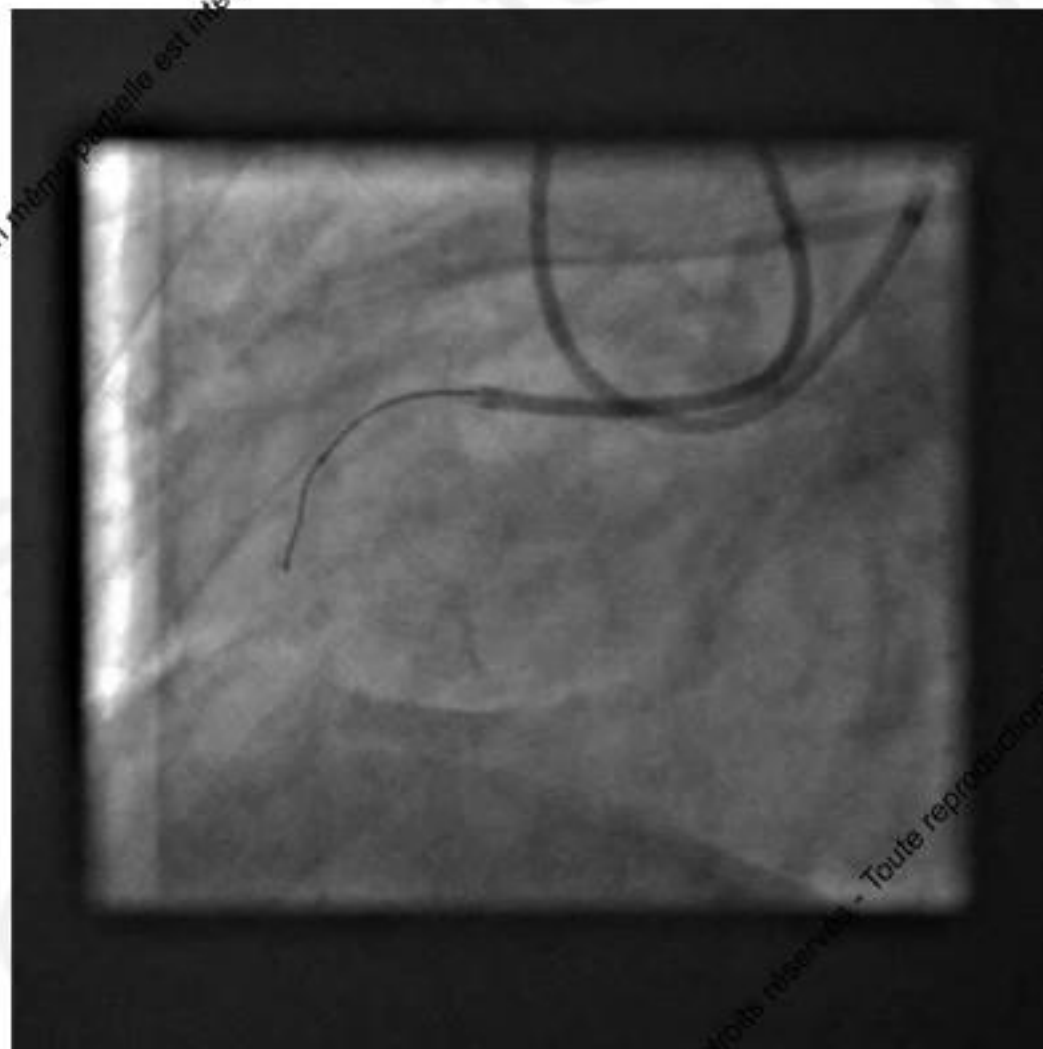
FielderXT + Finecross



RCA bridged CTO

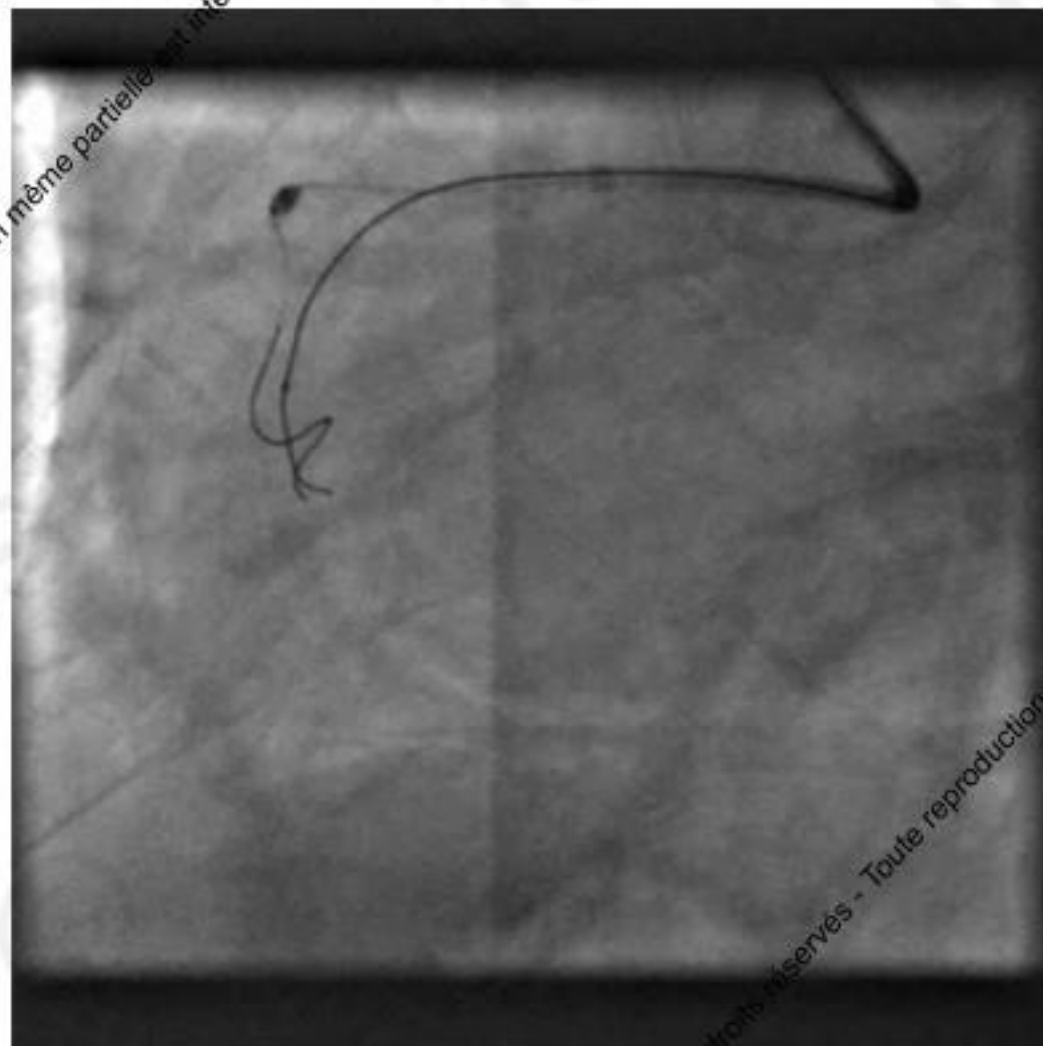
3D right

Miracle 12
Finecross

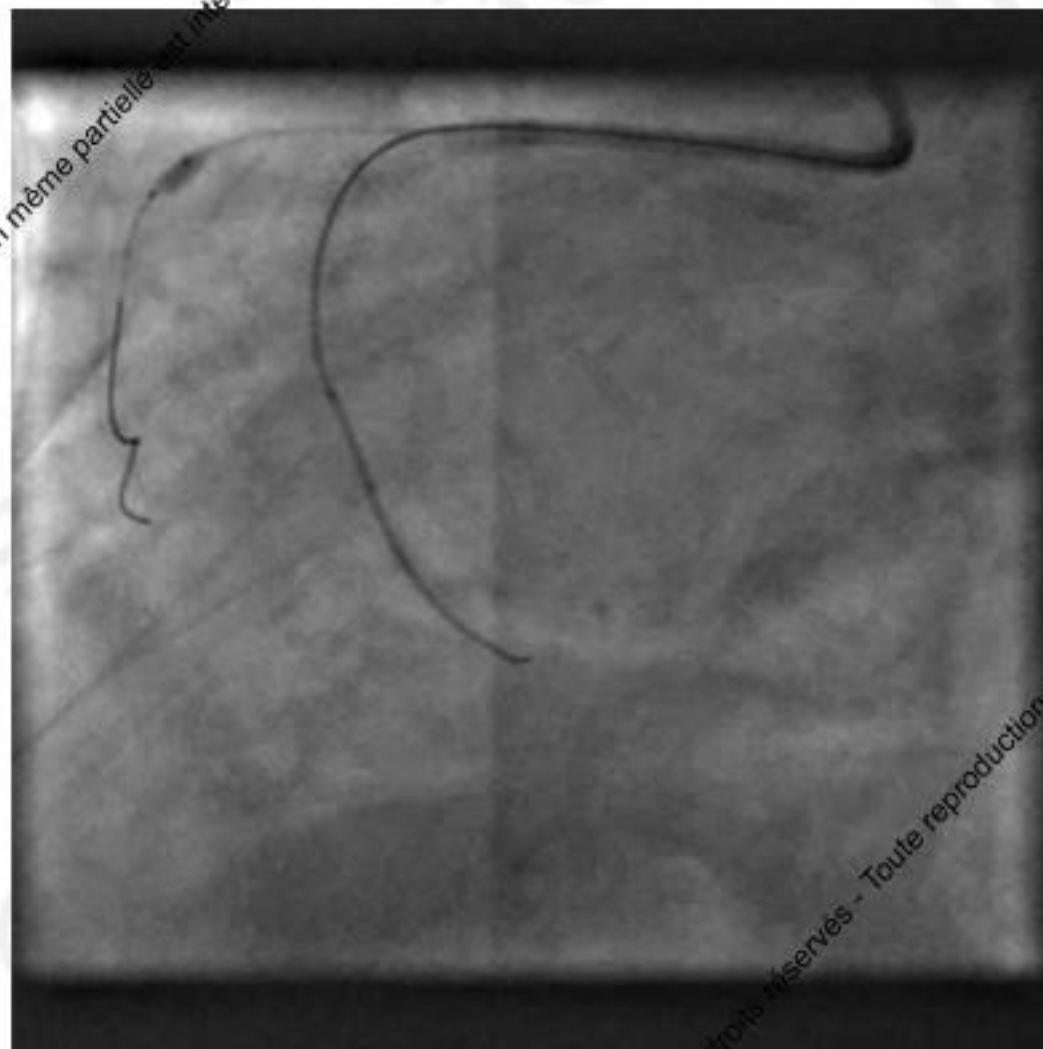


RCA bridged CTO

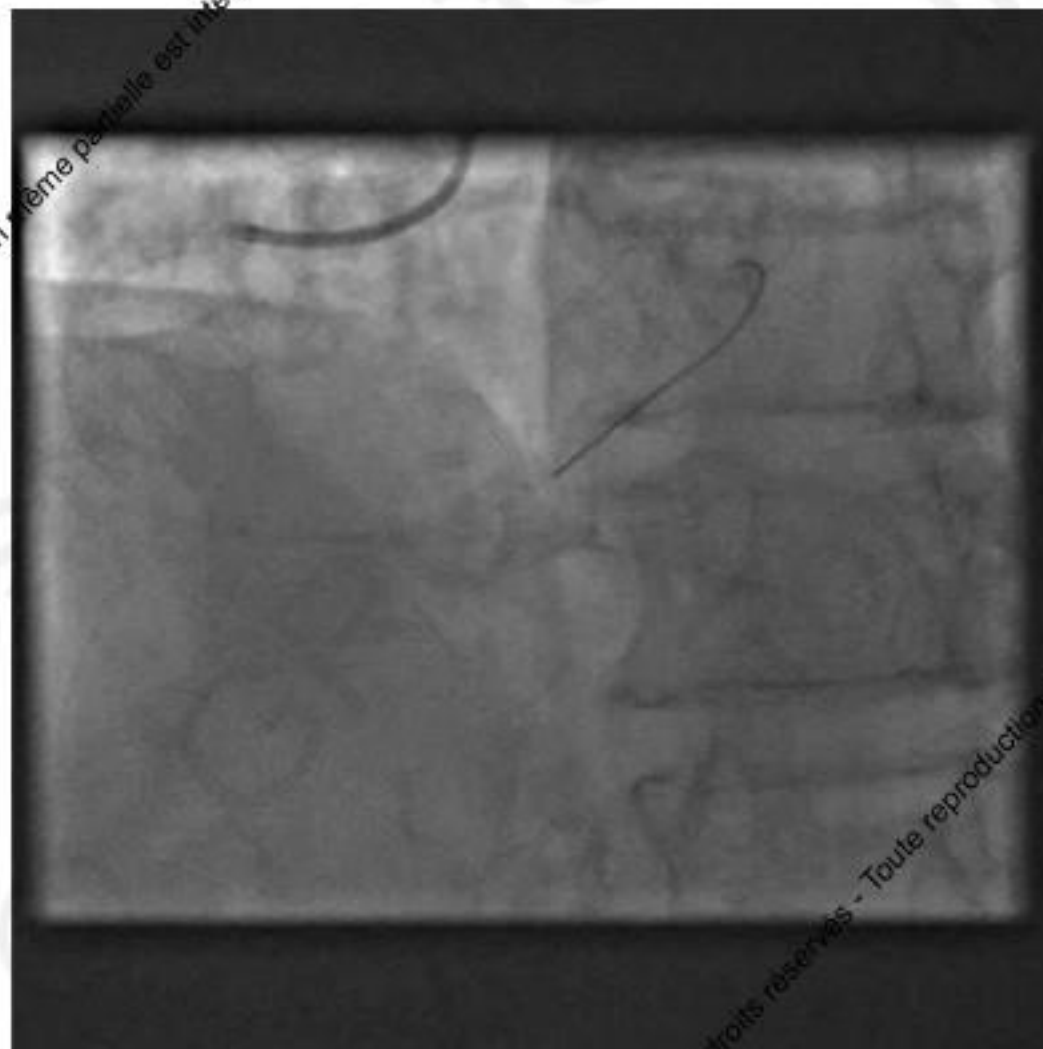
Anchoring balloon



RCA bridged CTO



RCA bridged CTO: final result



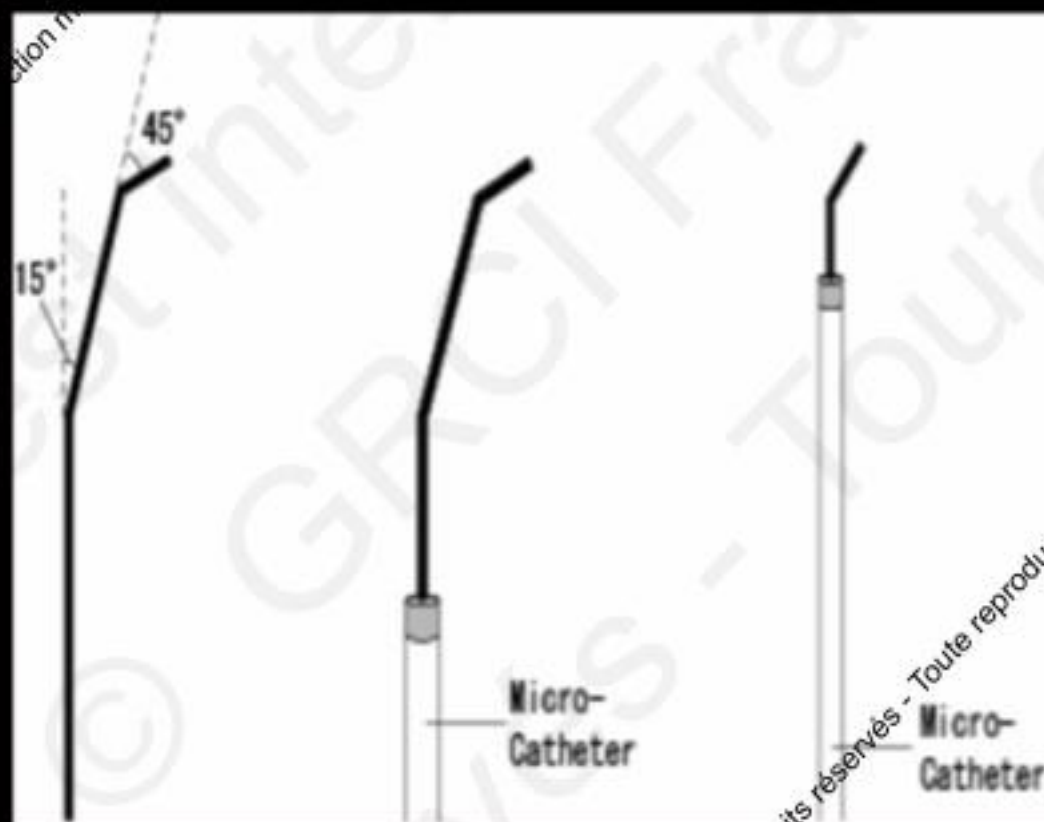
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Guide wires et microcatheters

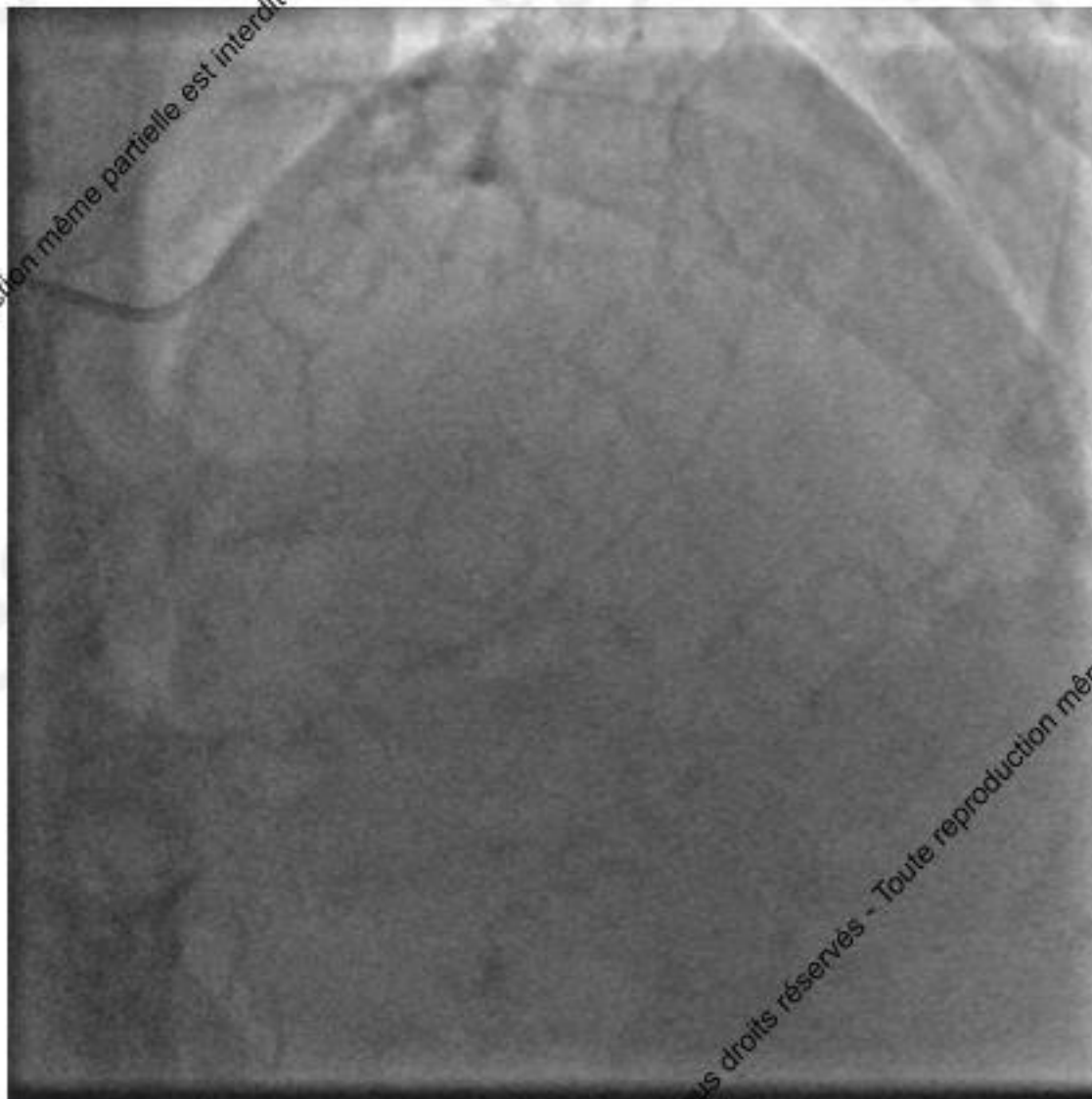
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Wire shaping

Shaping of the Wire

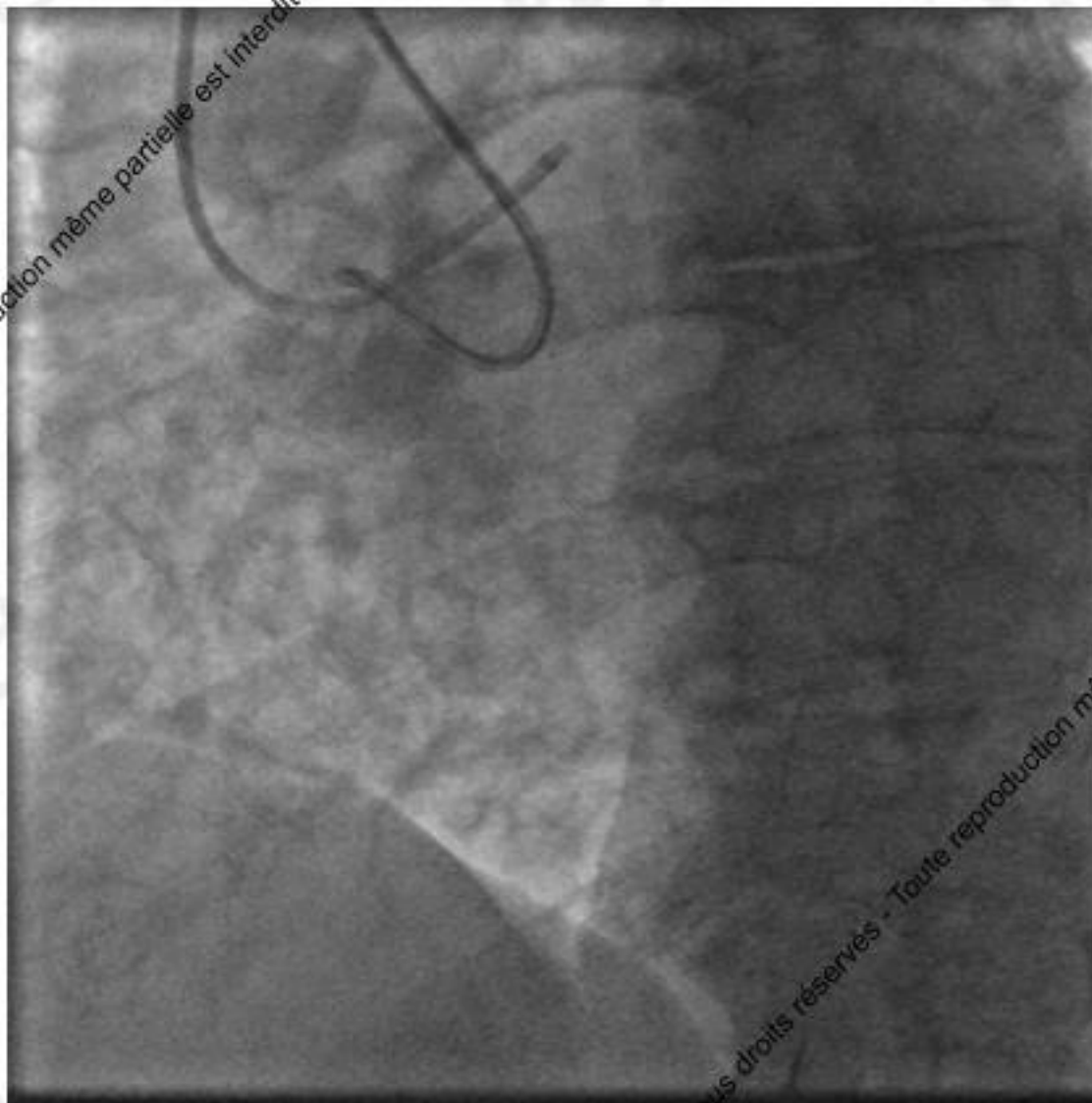


Long RCA CTO



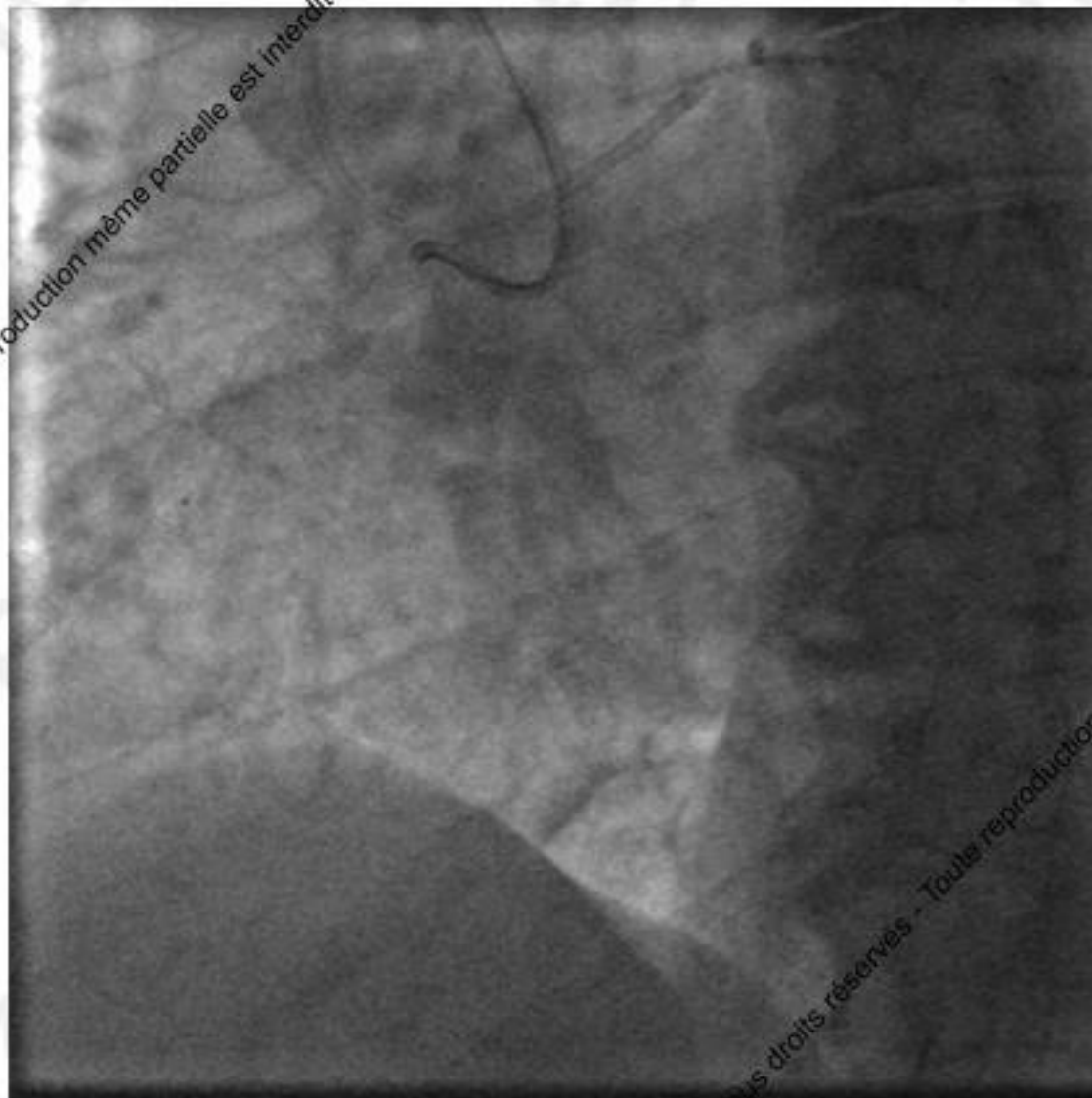
RCA CTO: double injection

Double radiol
AL2
EBU3.5



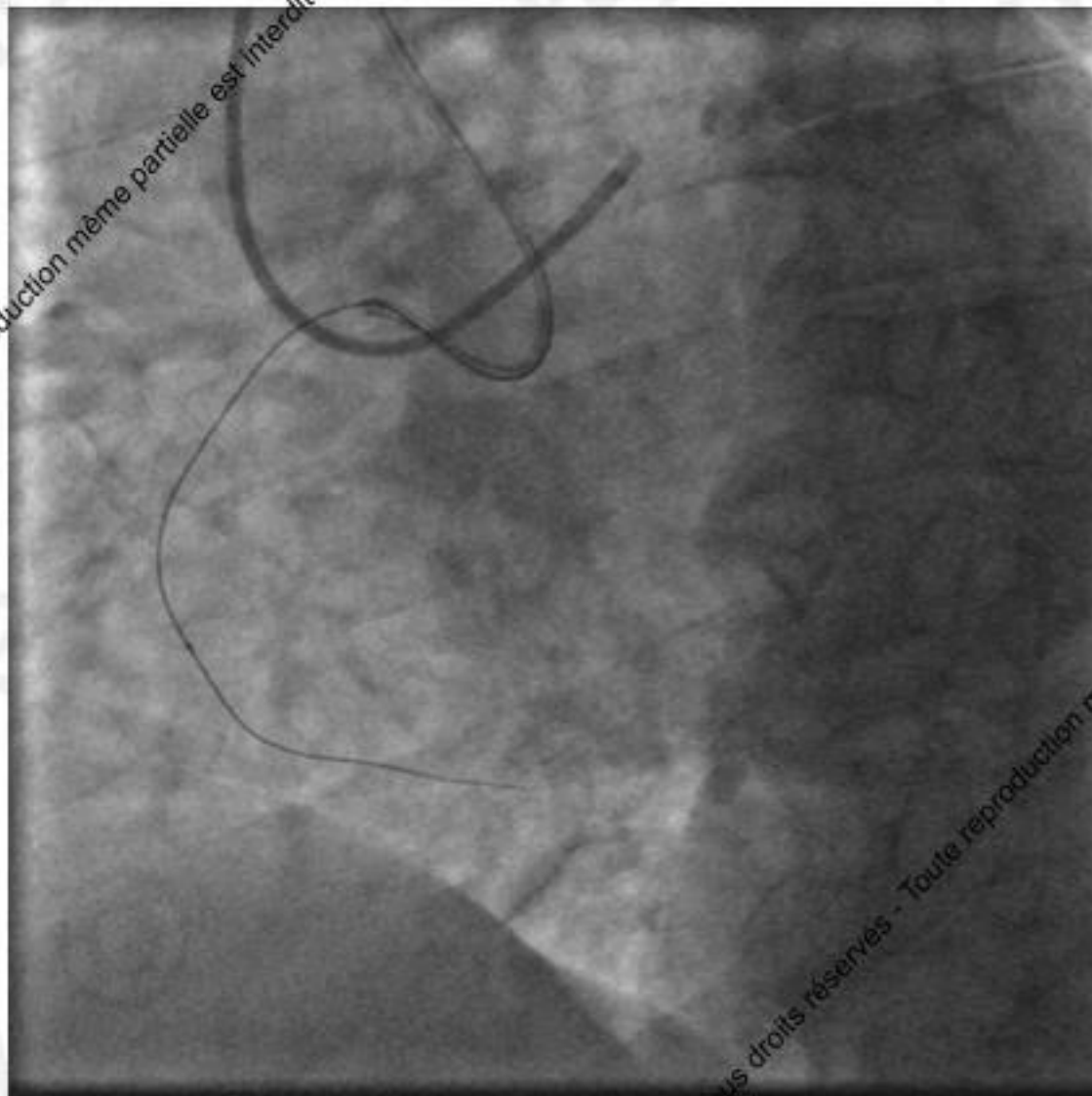
RCA CTO: microselective (careful) injection

Double radial
AL2
EBU4



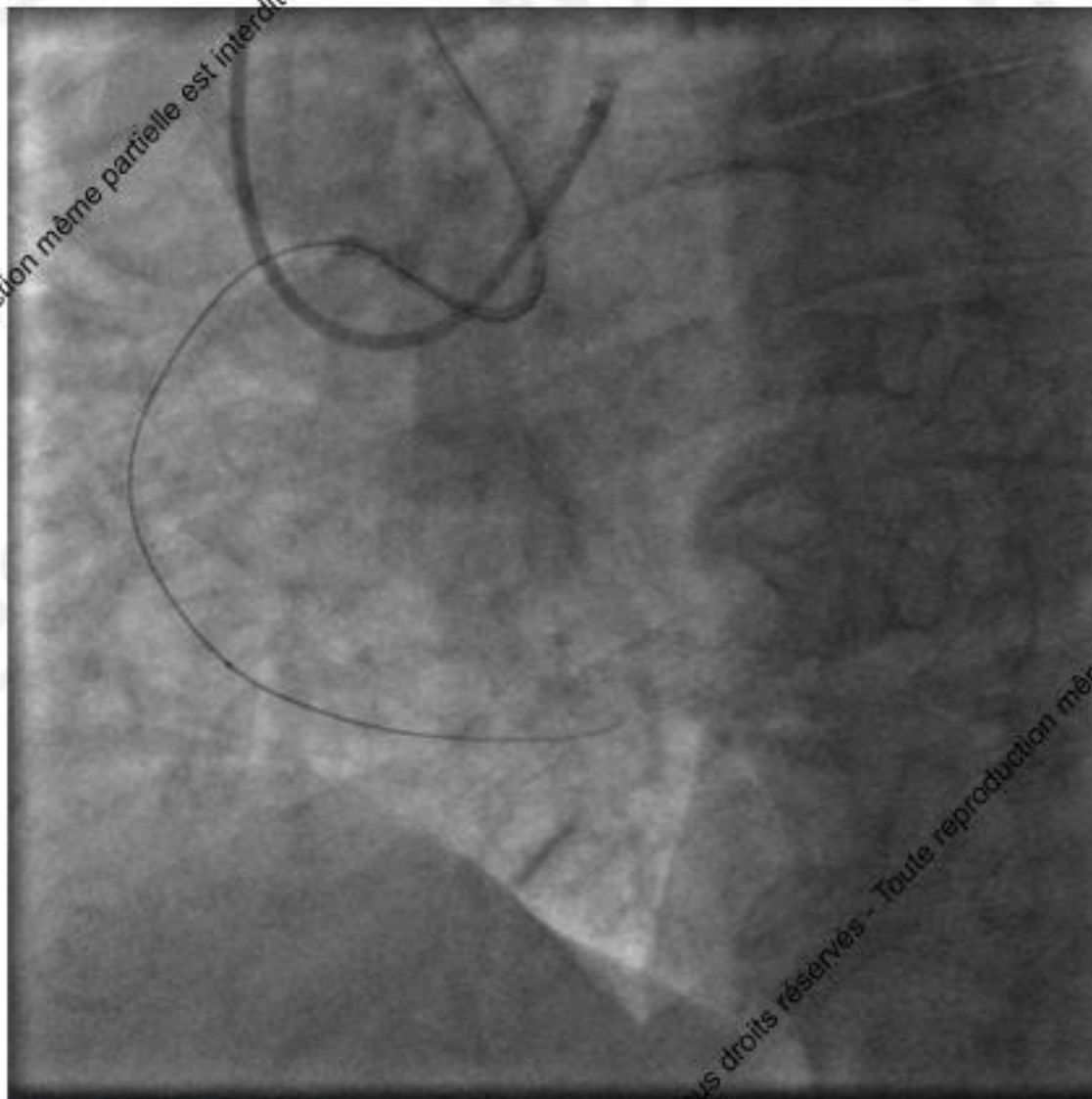
RCA CTO: controlateral guidance

Fielder XT
Finecross

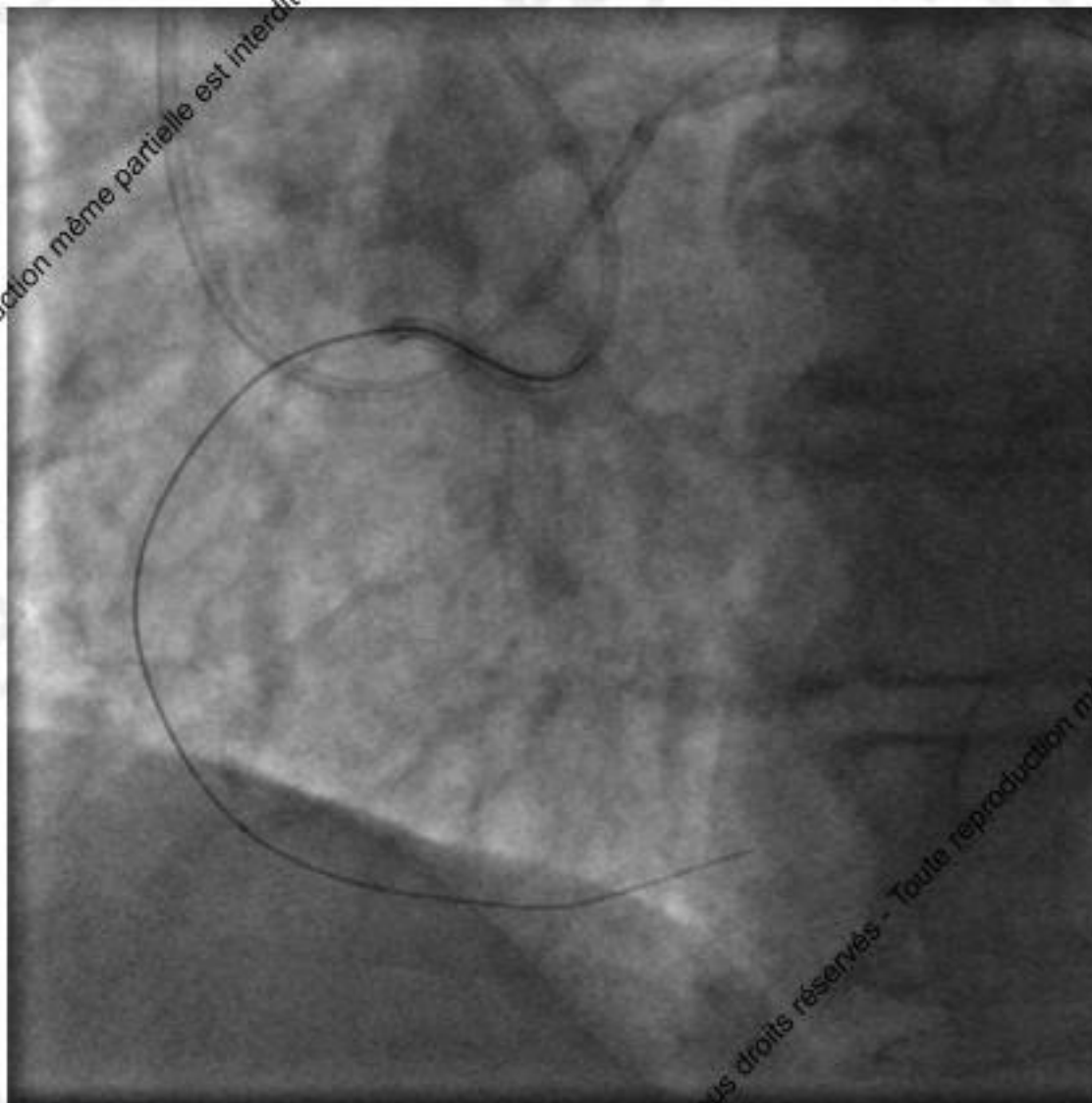


RCA CTO: controlateral injection

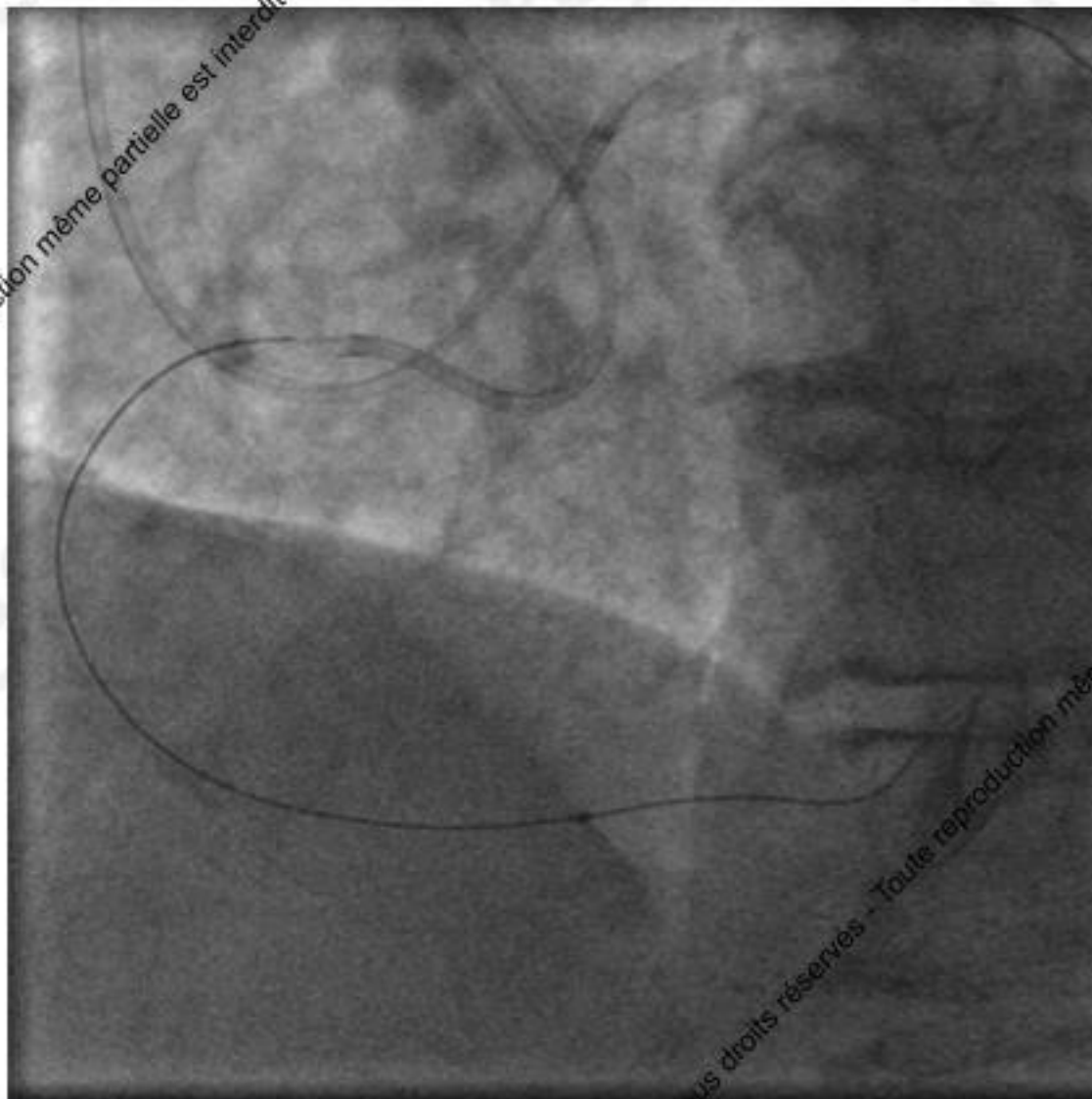
Fielder XT
Finecross



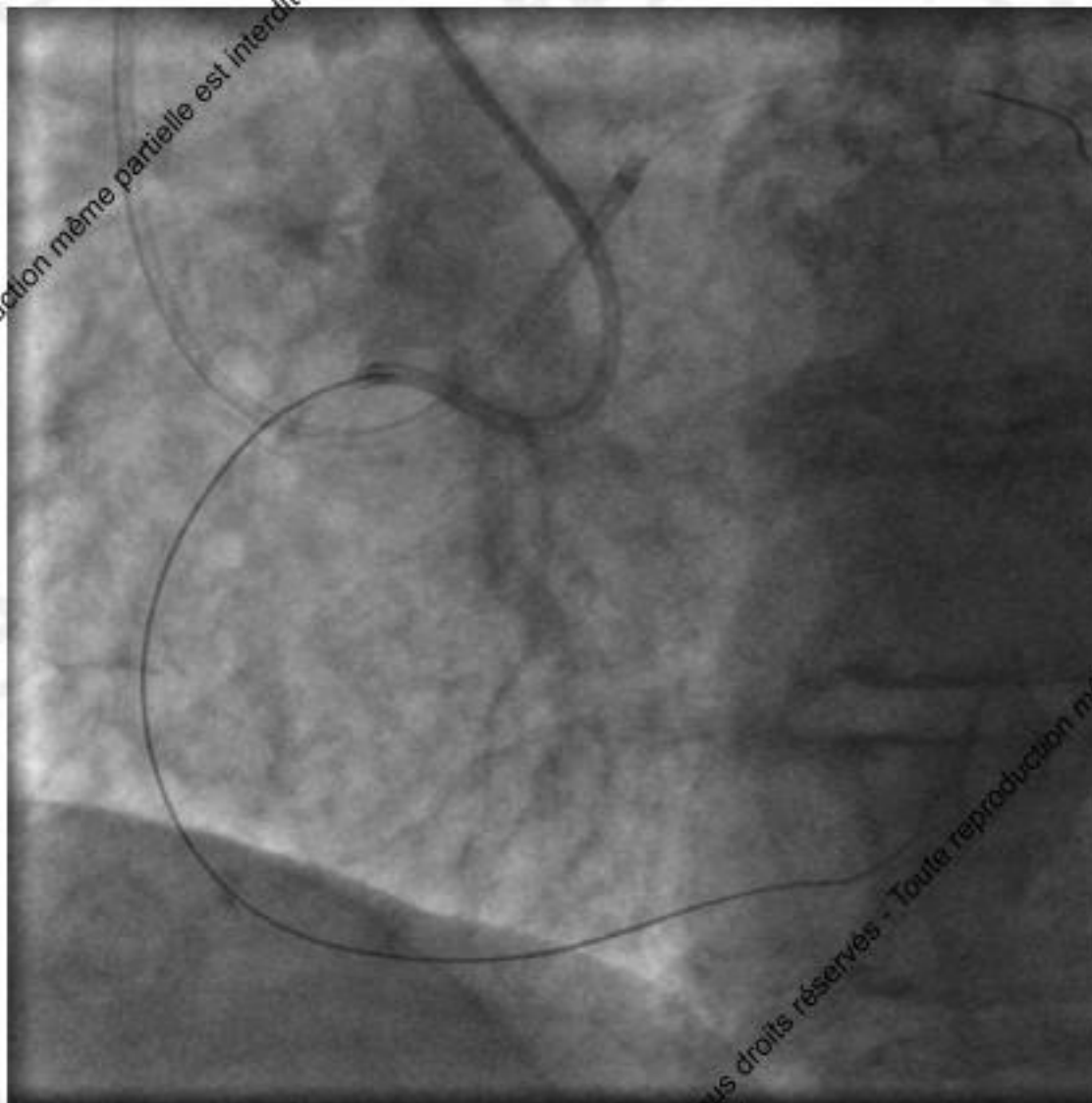
RCA CTO: antegrade crossing



RCA CTO: laser



RCA CTO: post-laser angio



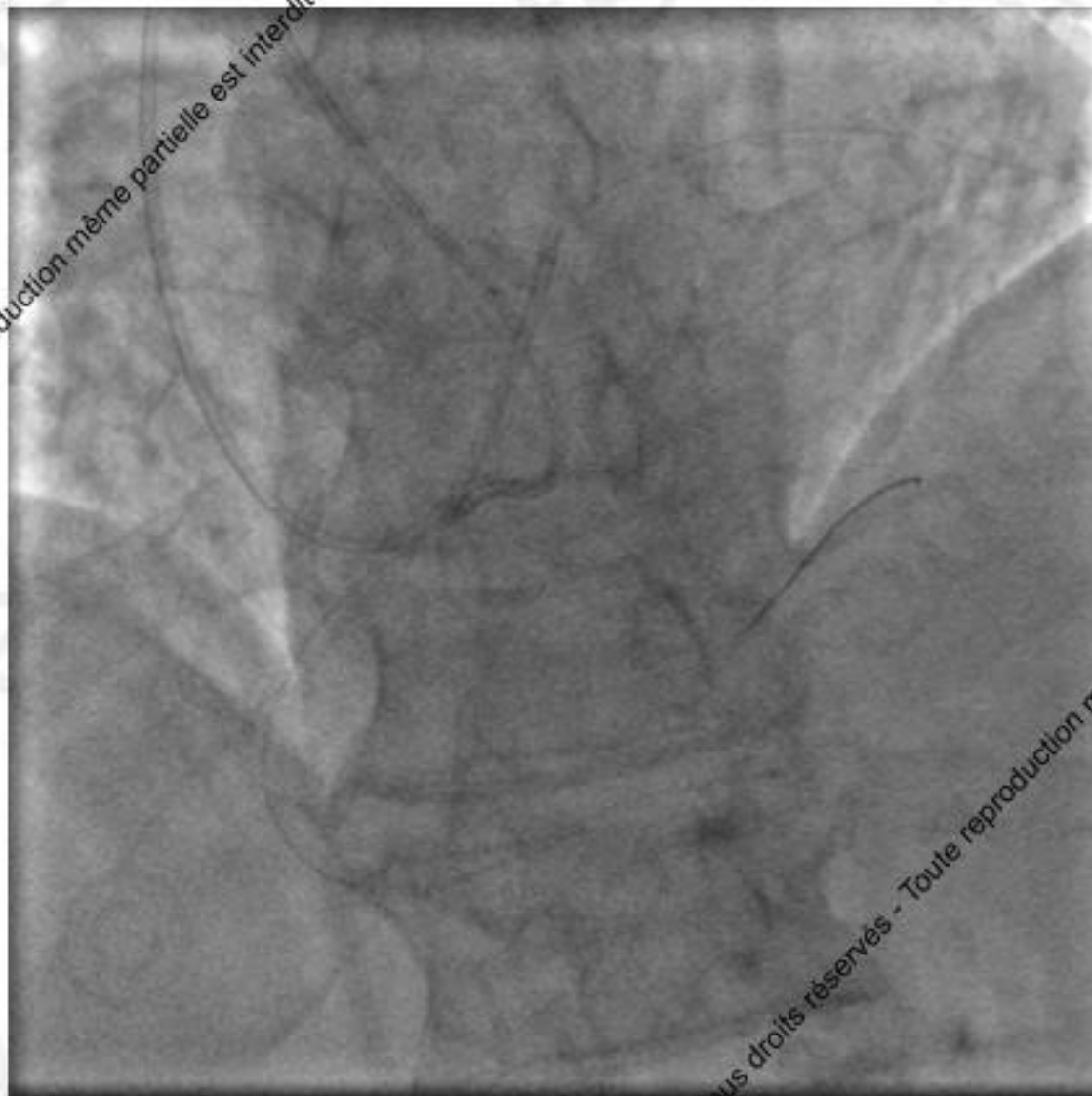
RCA CTO: wire exchange for BMW



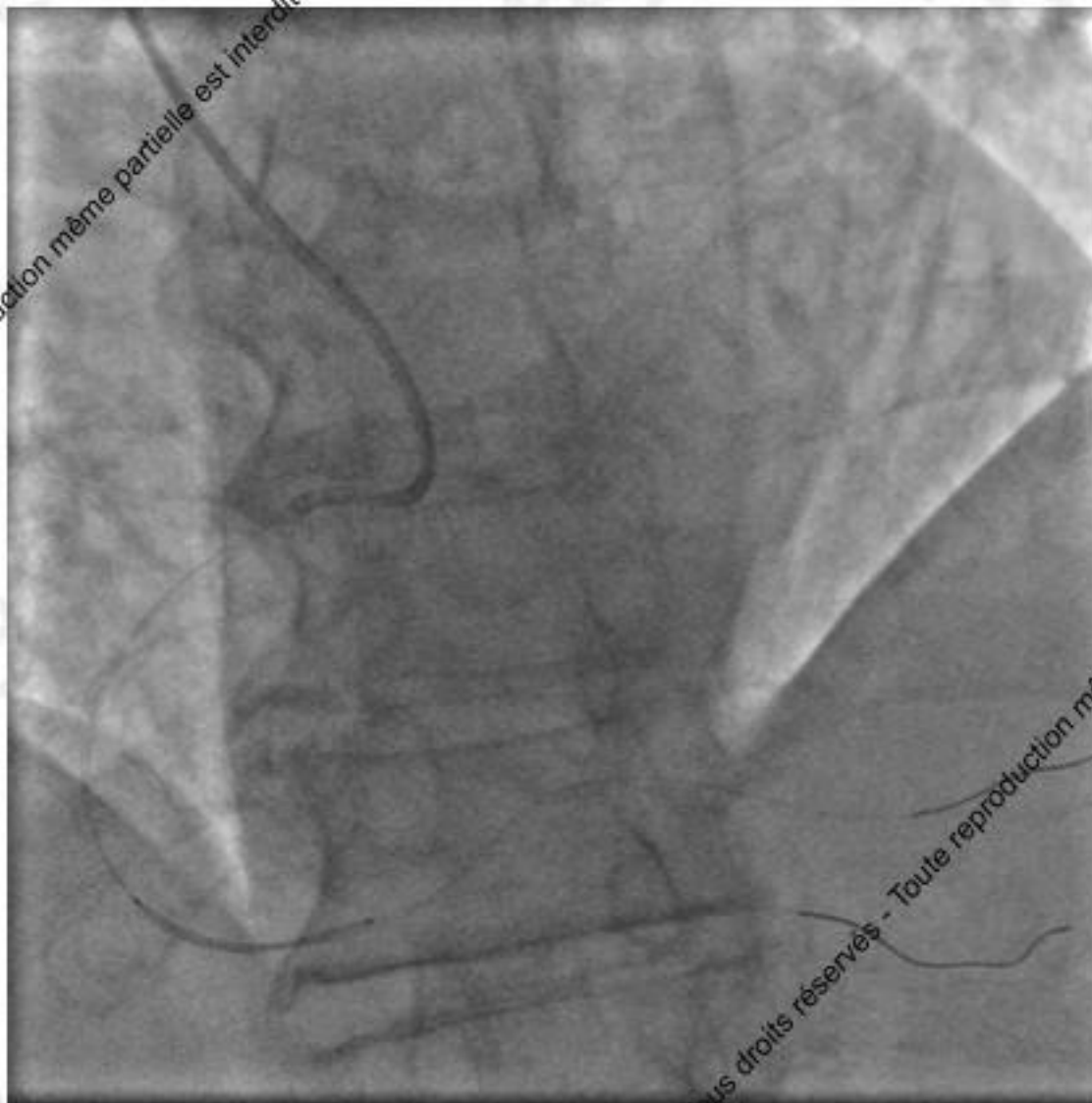
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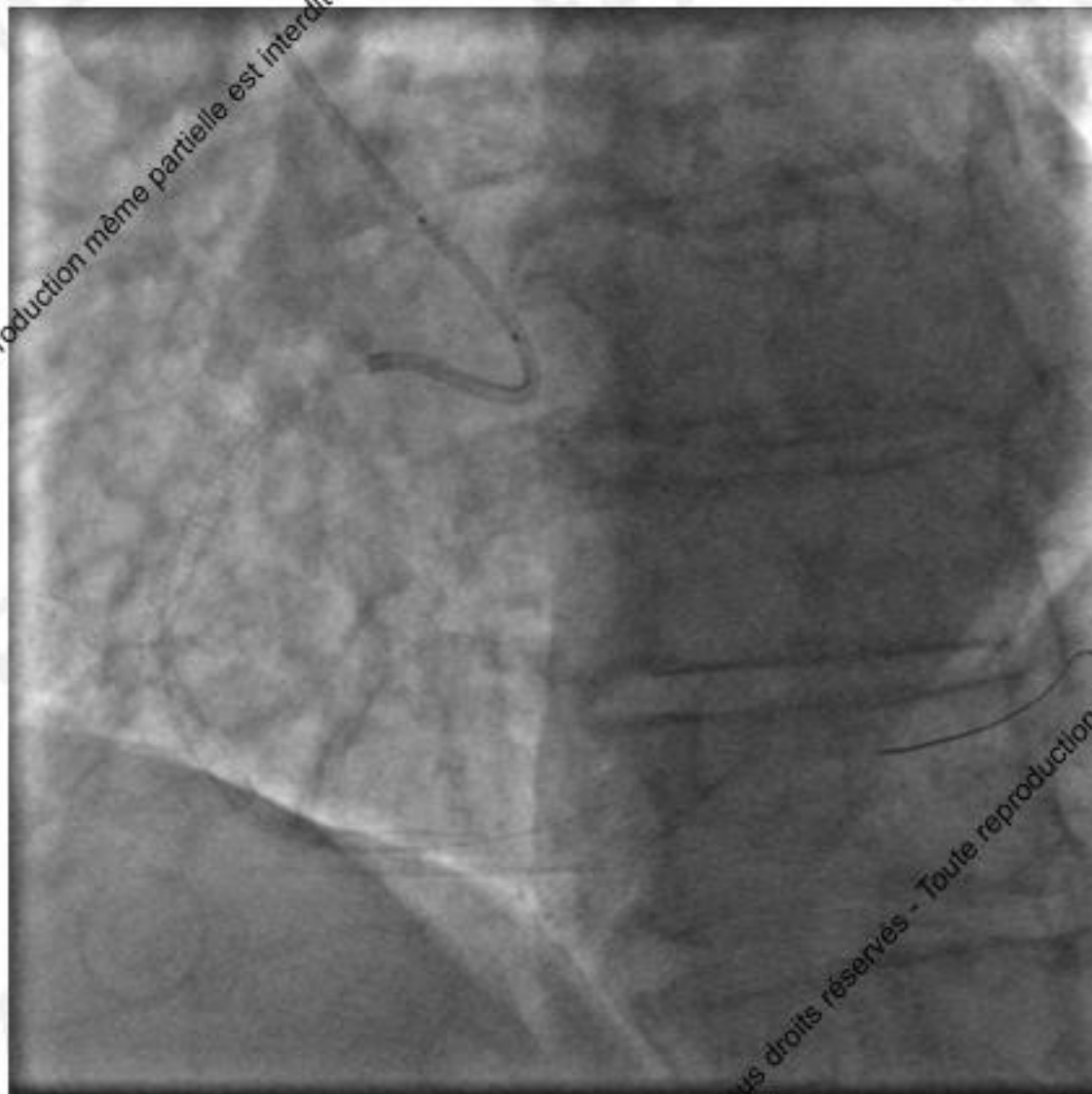
RCA CTO: wire exchange for BMW (2)



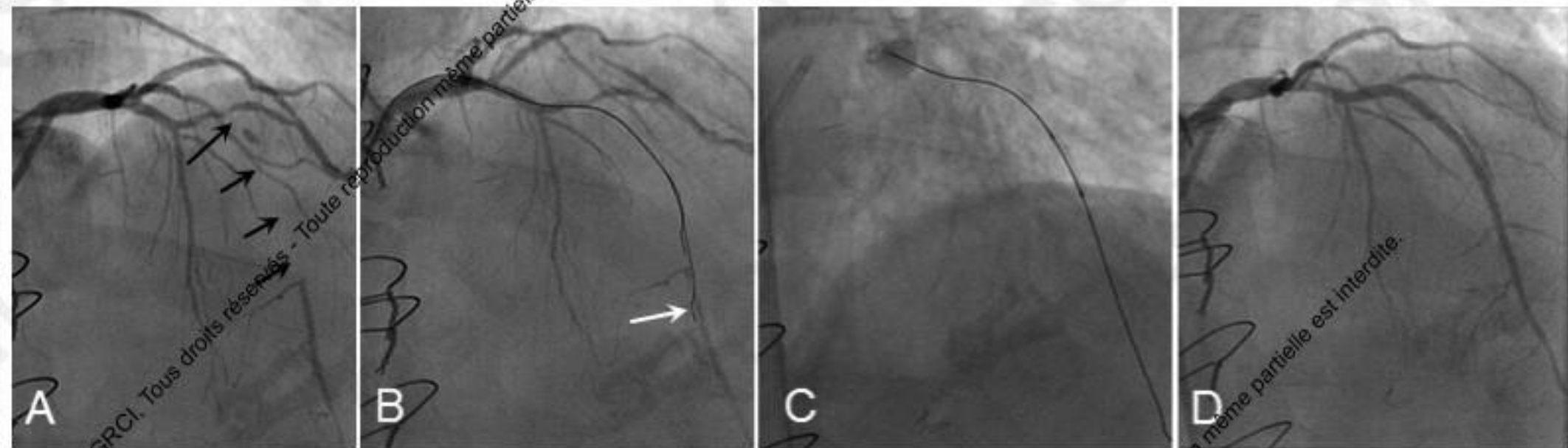
RCA CTO: stenting ...



RCA CTO: final



Parrallel wire technique



Support

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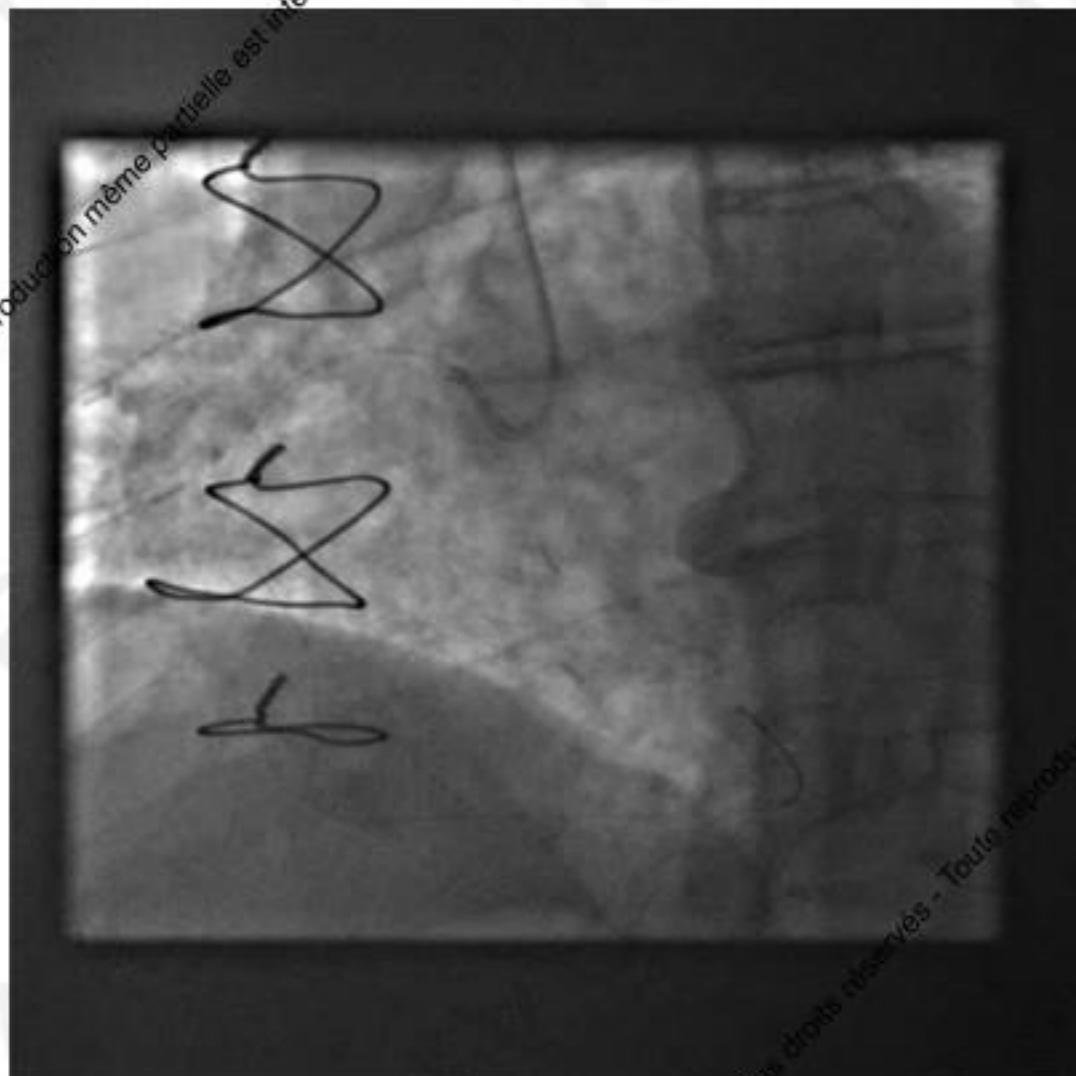
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Post CABG: Old RCA CTO + graft stenosis

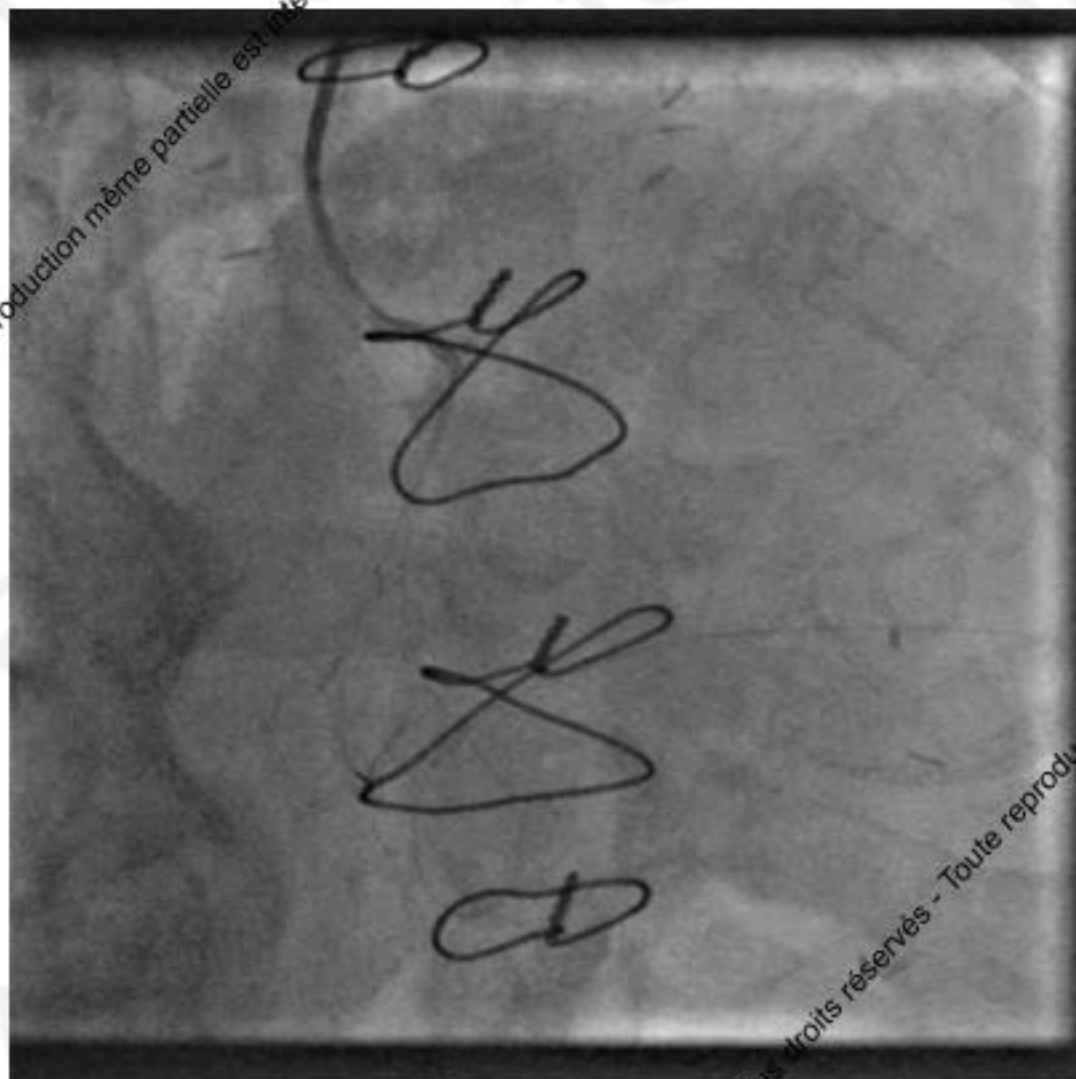
Right radial 6F

AL2

Runthrough NS

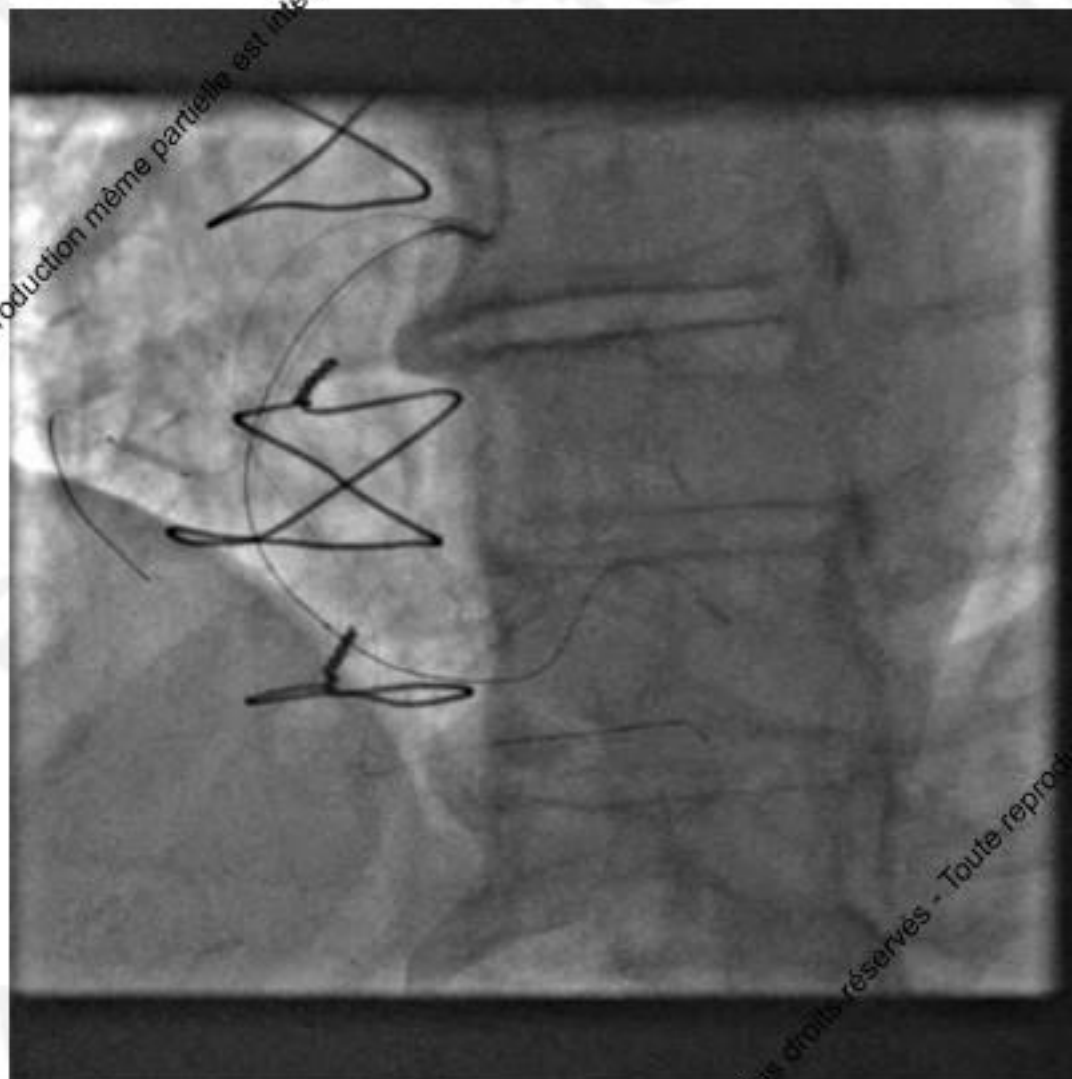


Post CABG: Old RCA CTO + graft stenosis



Finecross + Felder
XT

Post CABG: Old RCA CTO + graft stenosis

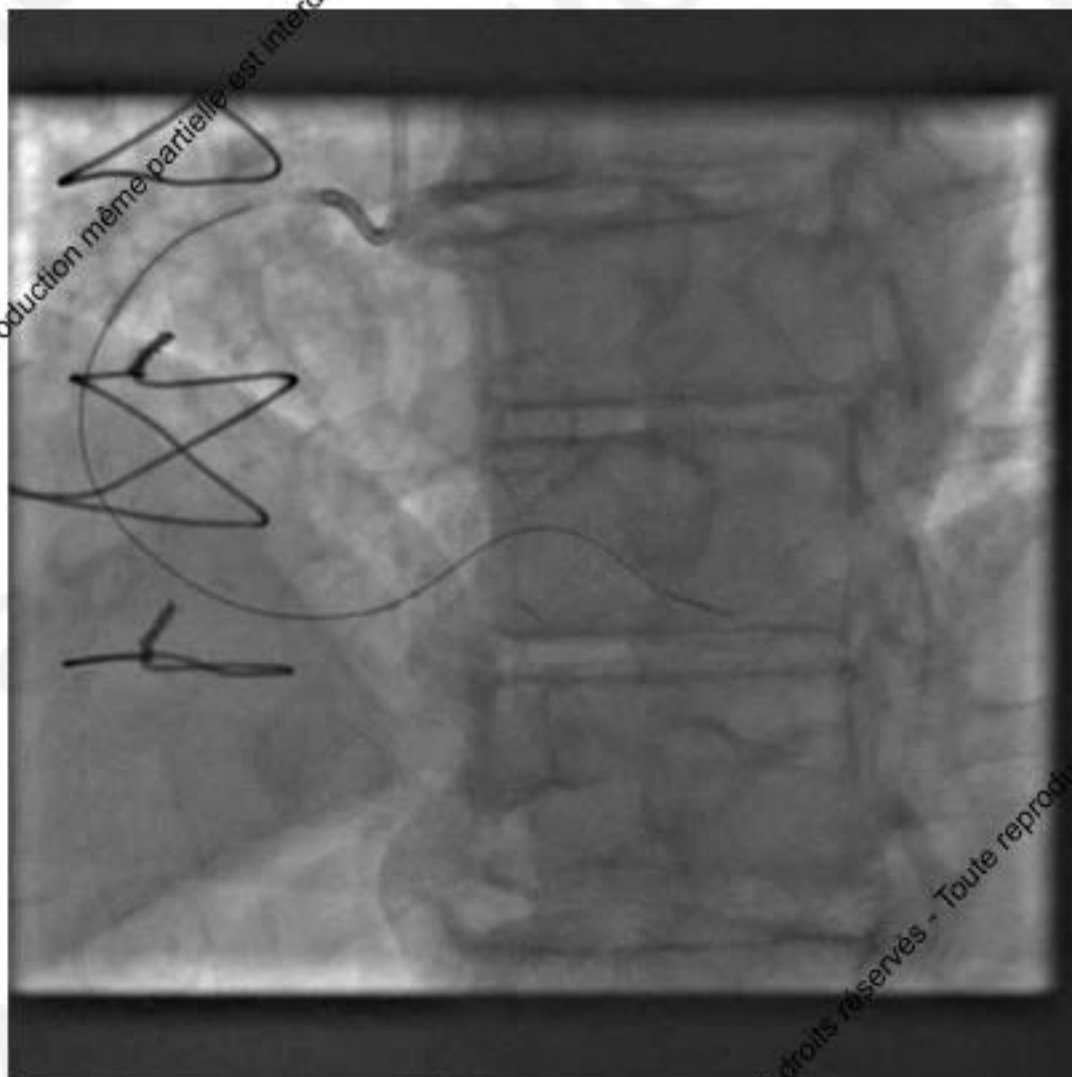


3 wires

Finecross

Anchoring
balloon

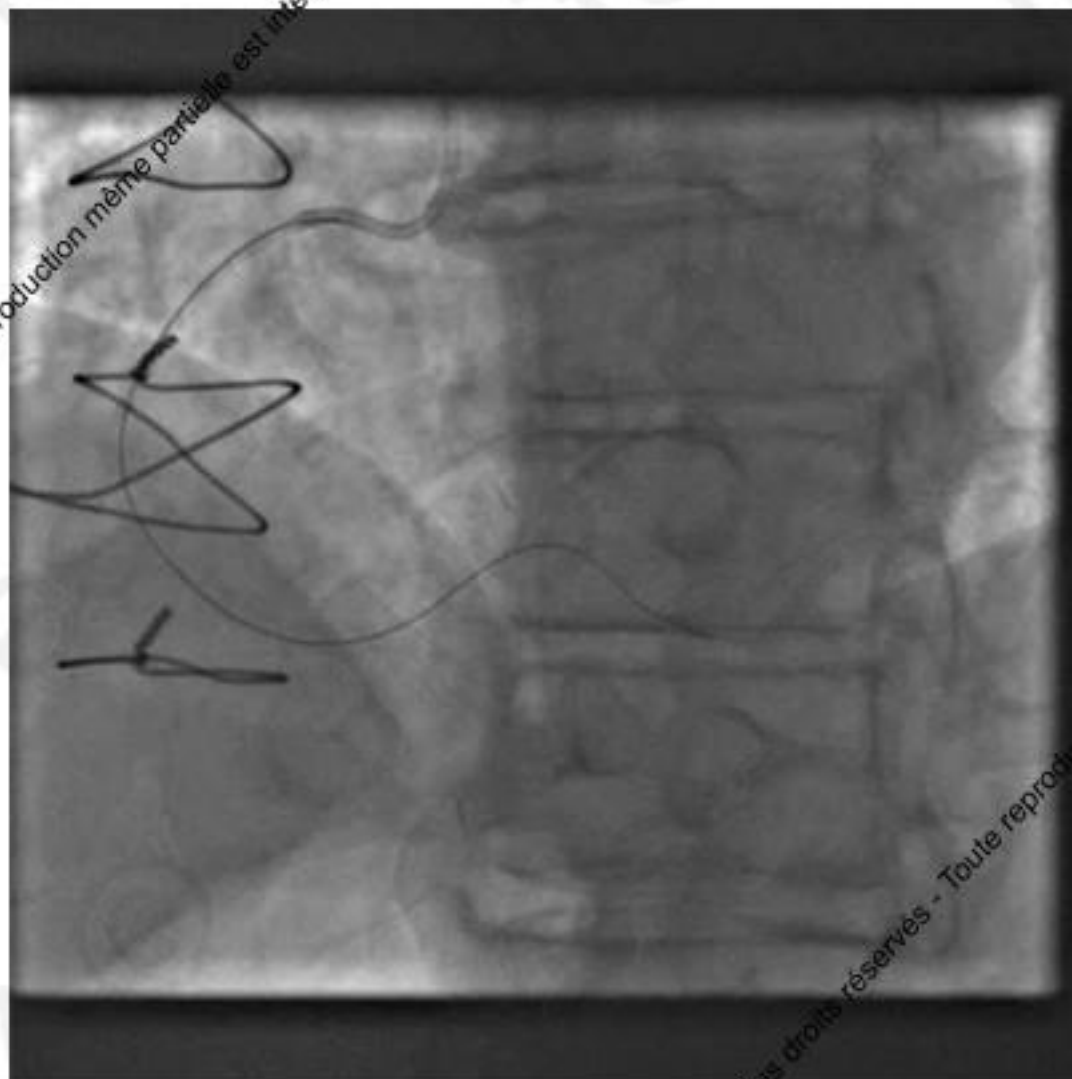
Post CABG: Old RCA CTO + graft stenosis



5 in 6 Heartrail

**Finecross on XT
crossing the CTO**

Post CABG: Old RCA CTO + graft stenosis



After Xience Prime
3.5X38

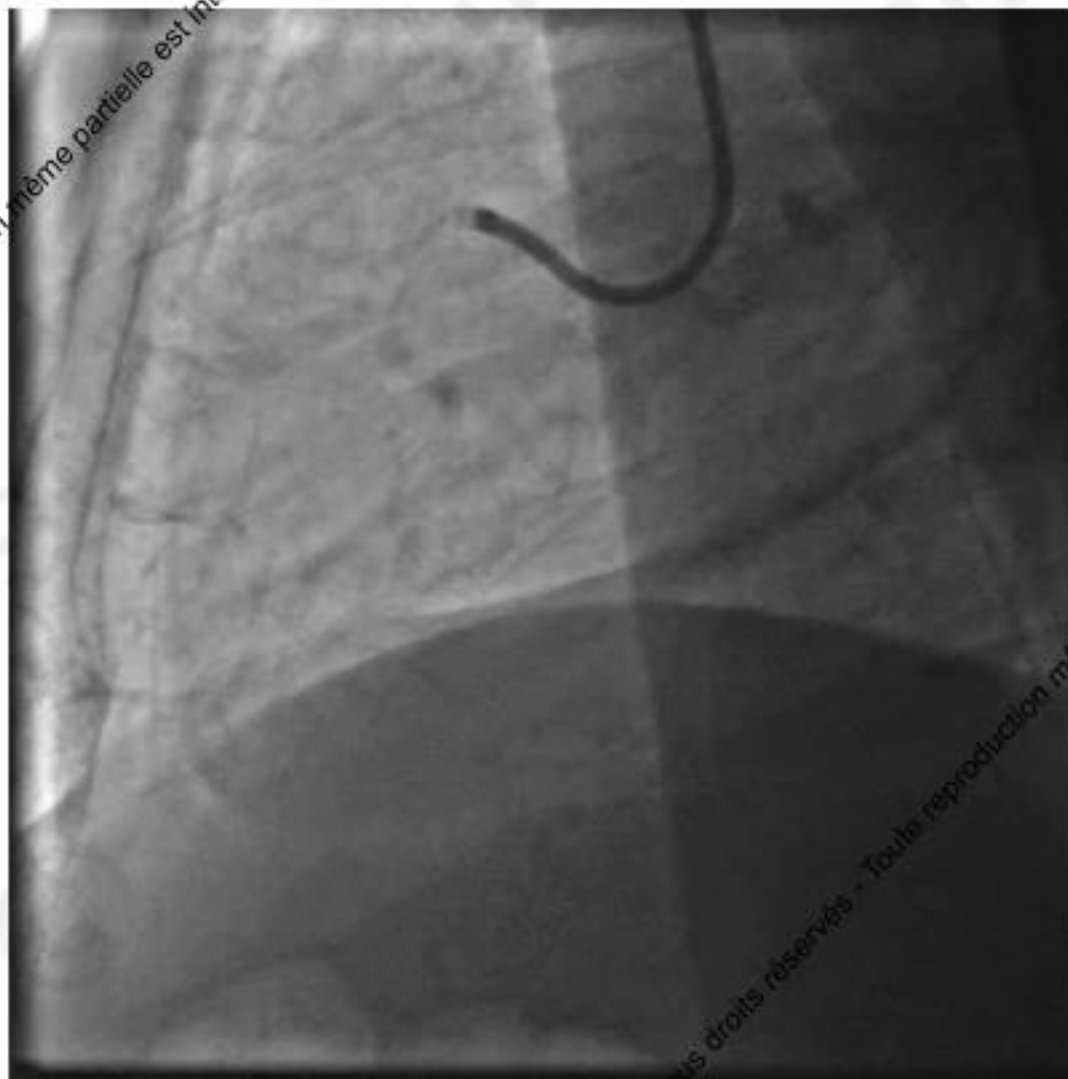
Guidance

17 years old « recanalised » proximal RCA CTO

Right radial 7F

AL 0.75 7F

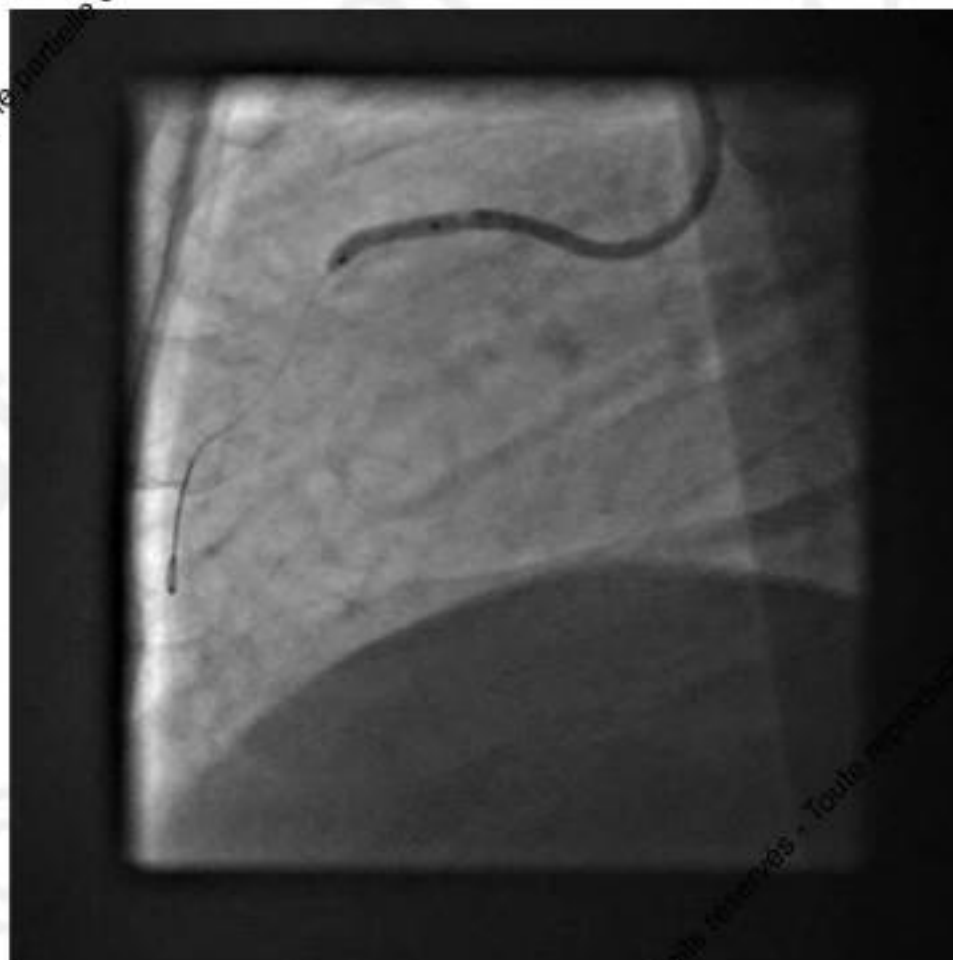
Side holes



17 years old « recanalised » proximal RCA CTO

Fielder FC

Tazuna 2.5X15



17 years old « recanalised » proximal RCA CTO

Fielder FC

Tazuna 2.5X15



17 years old « recanalised » proximal RCA CTO

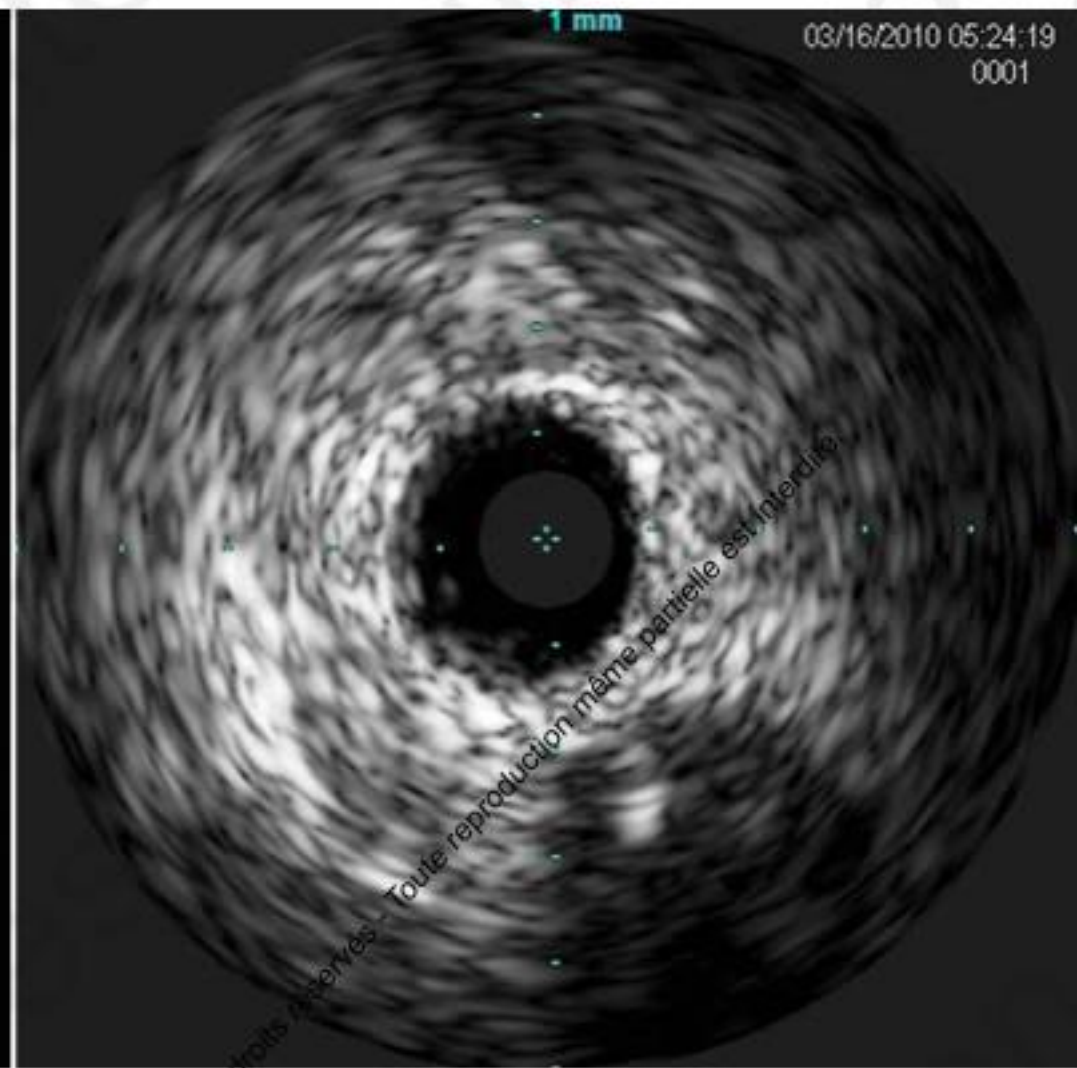
Fielder FC

IVUS

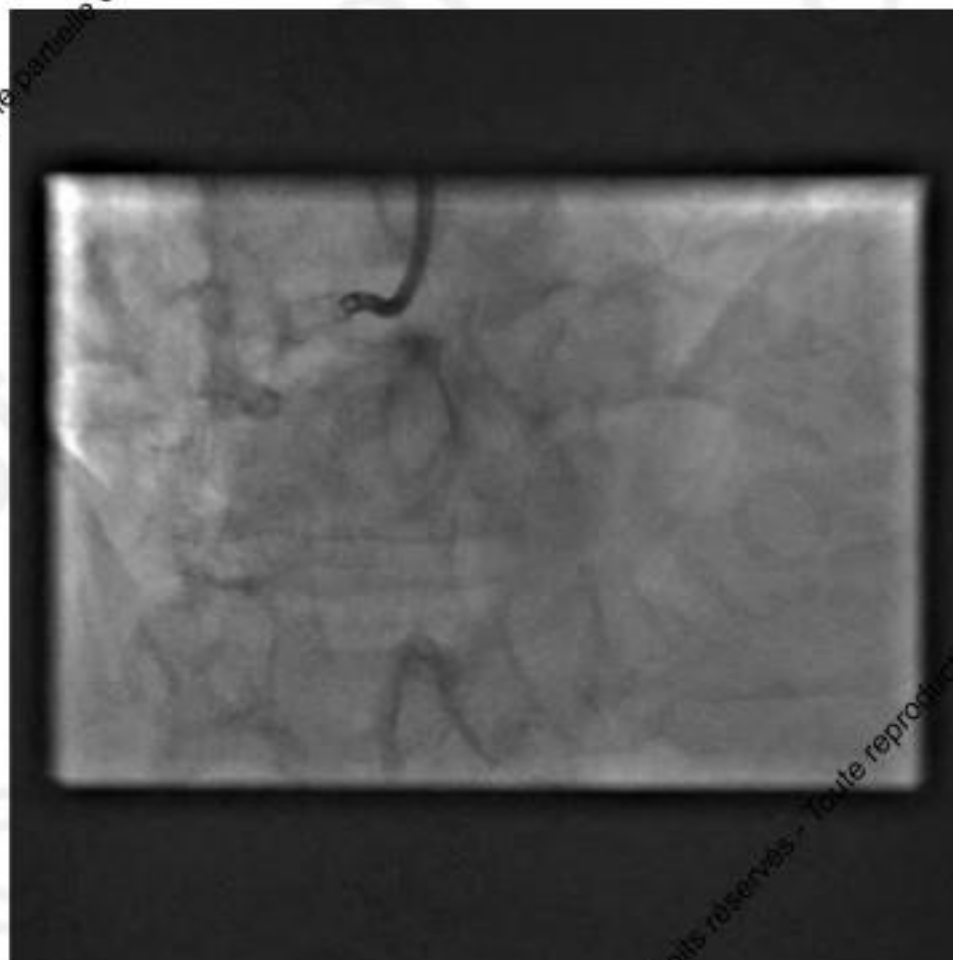
Firecross



17 years old « recanalised » proximal RCA CTO



17 years old « recanalised » proximal RCA CTO

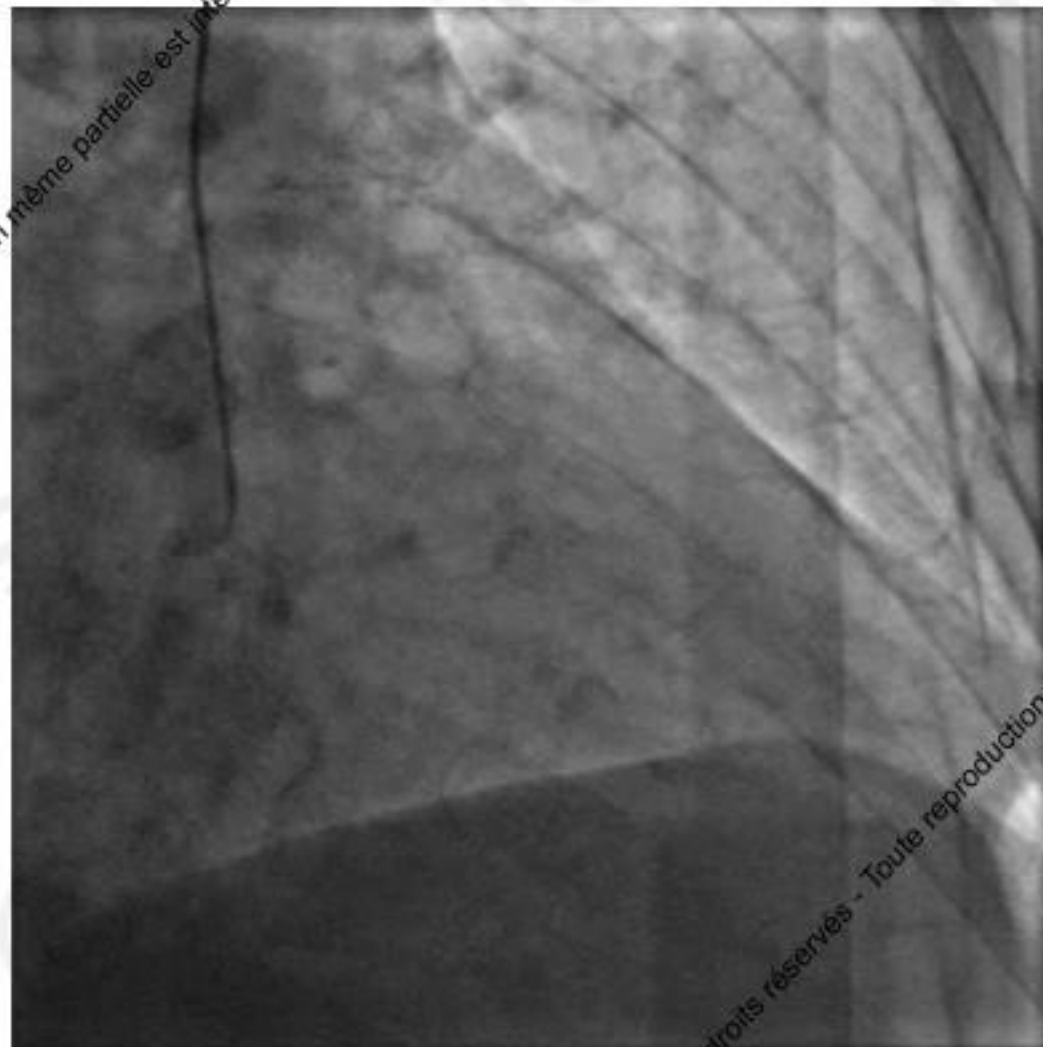


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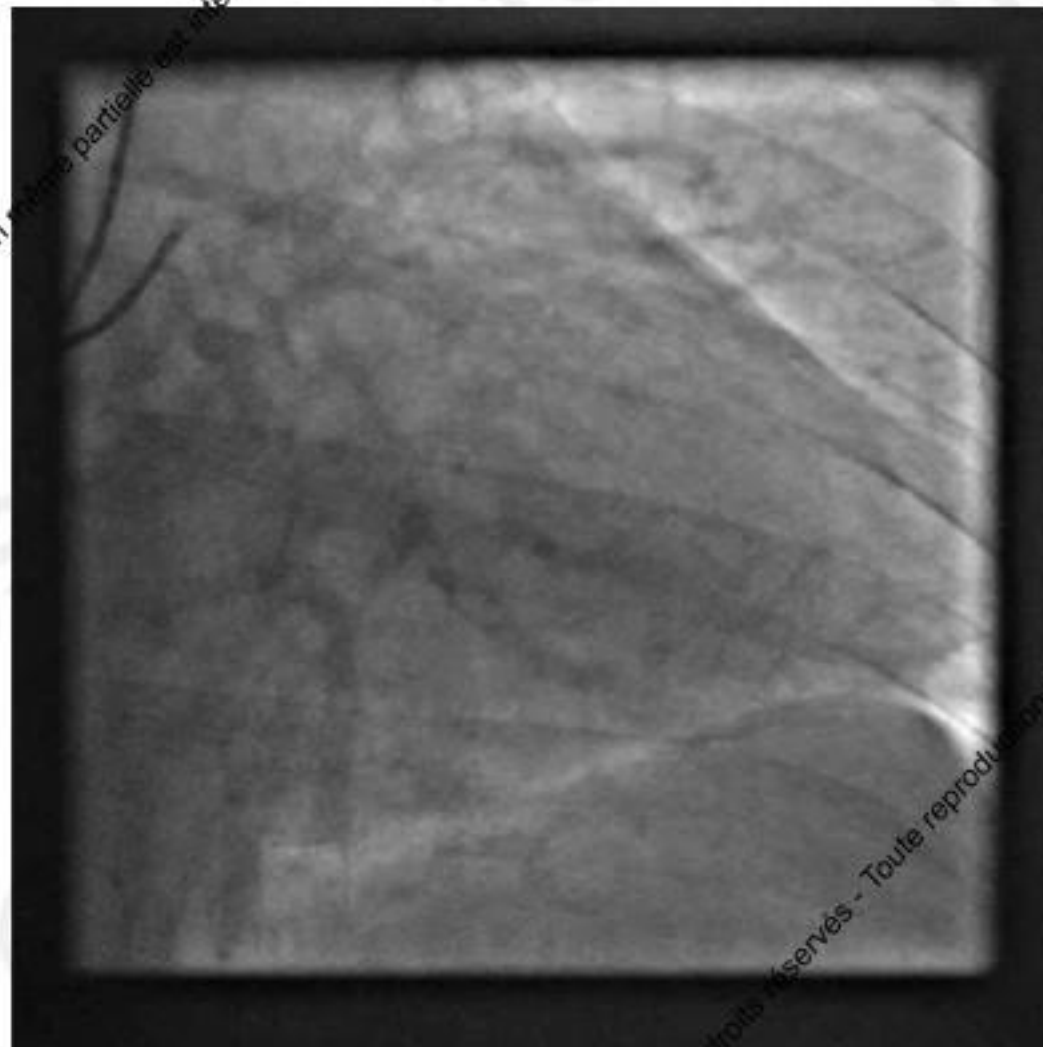
Antegrade or primary retrograde ?

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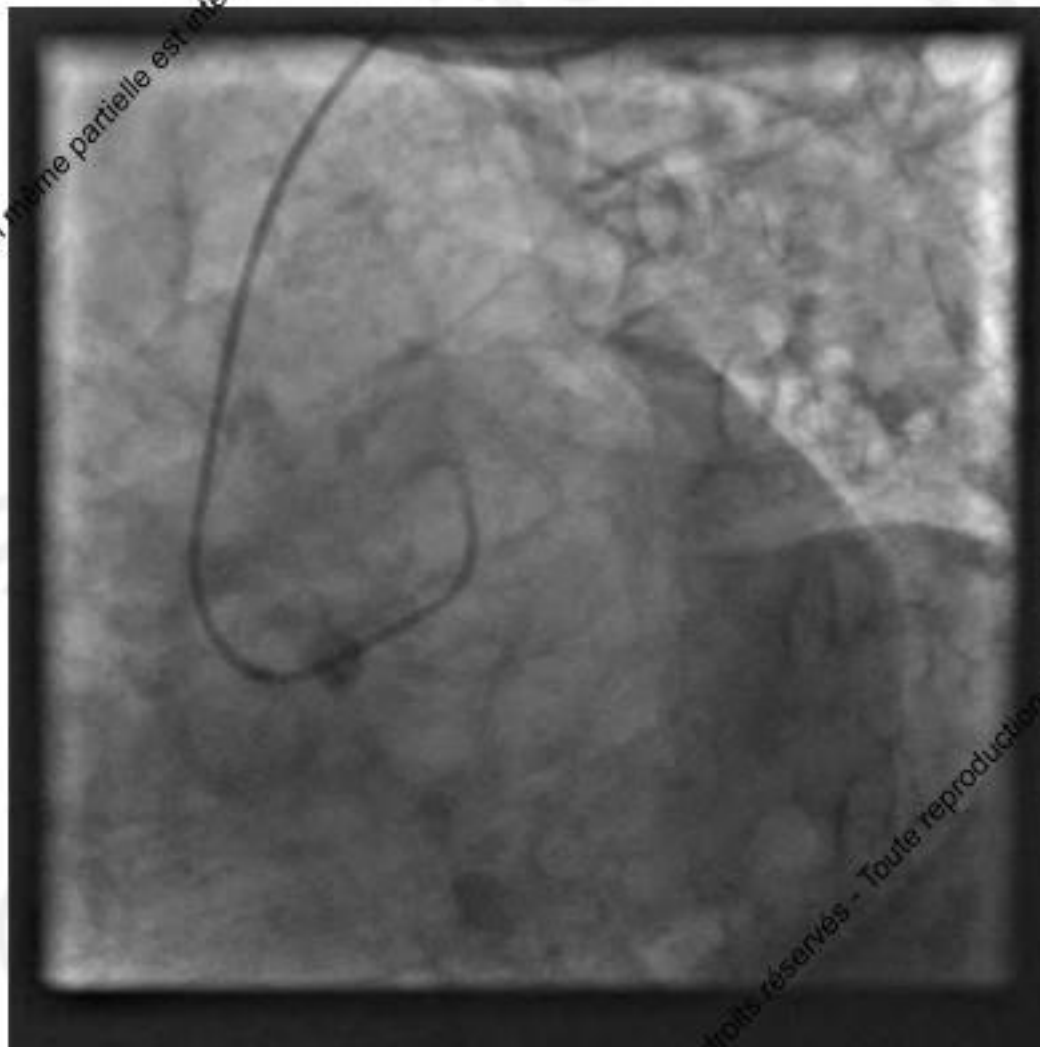
Proximal LAD old CTO: ambiguous CTO site



Proximal LAD old CTO: ambiguous CTO site



Proximal LAD old CTO: ambiguous CTO site



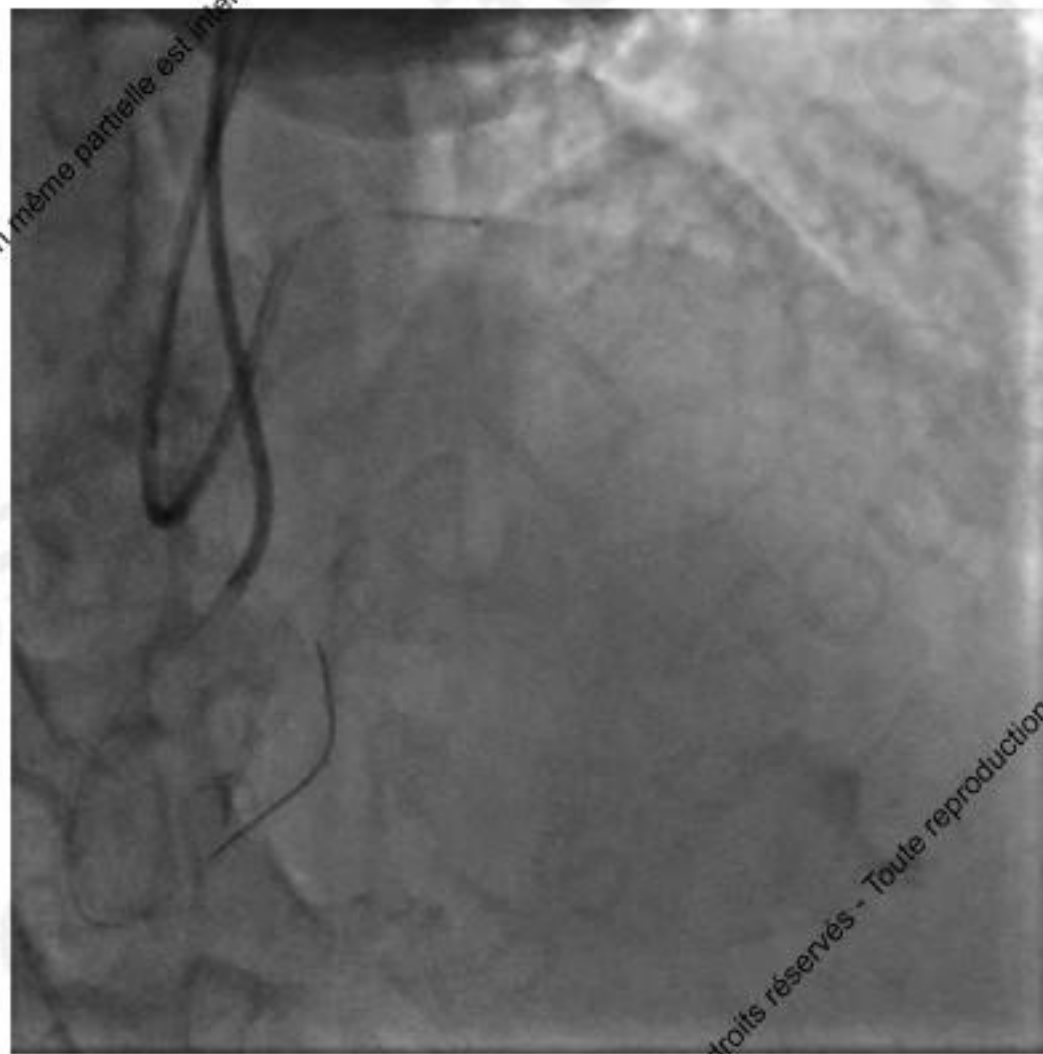
Proximal LAD old CTO: ambiguous CTO site = microcatheter injection

Double radial 6F

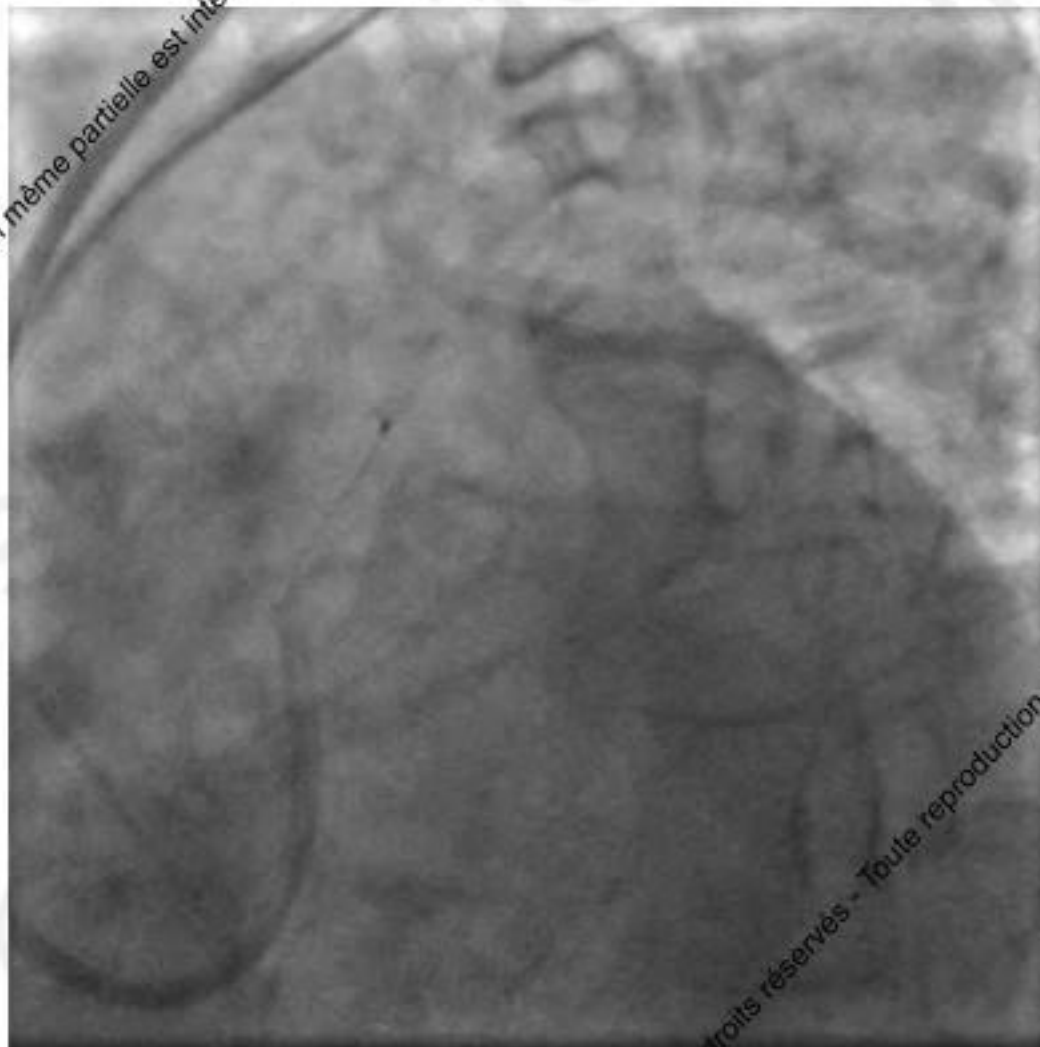
EBU 3.5

JR4 + BMW

Finecross



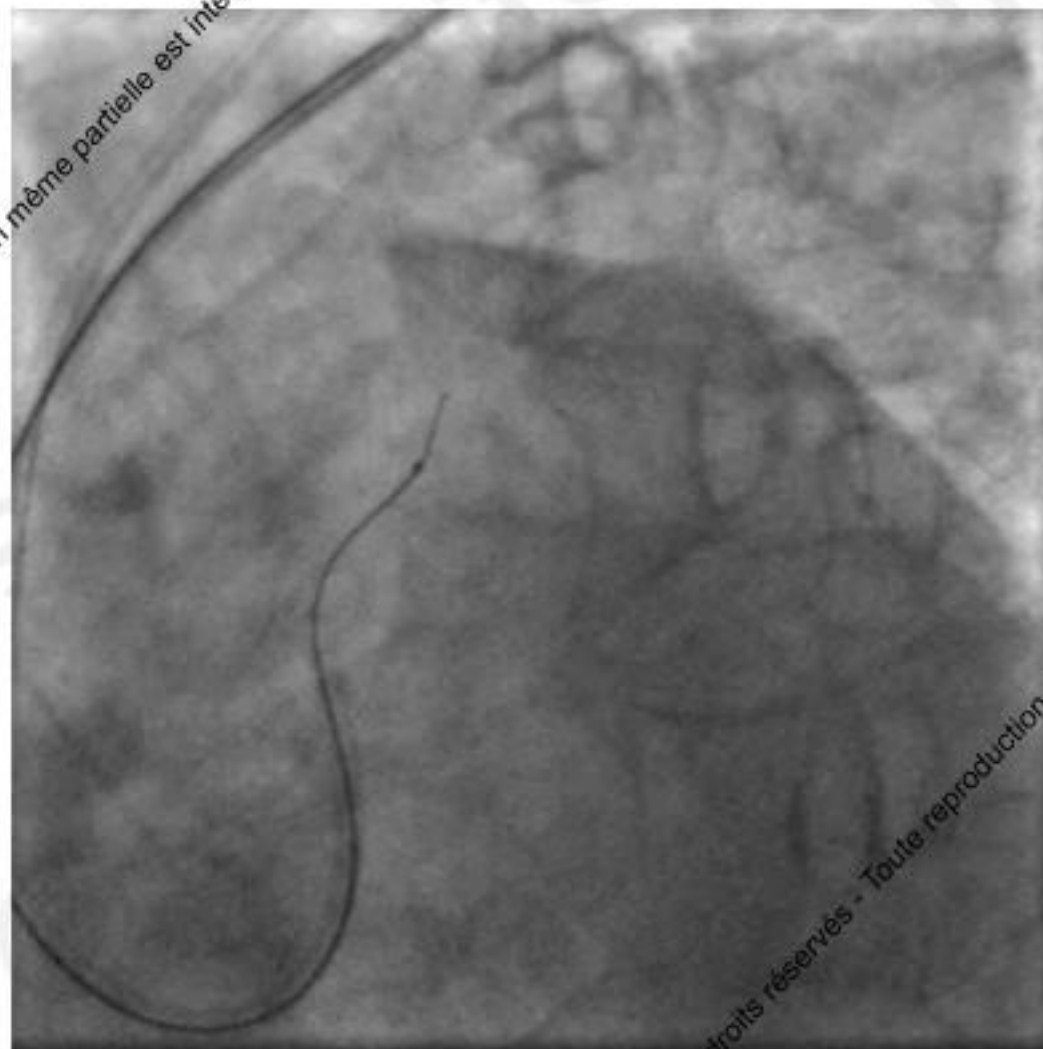
Proximal LAD old CTO: ambiguous CTO site



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Proximal LAD old CTO: ambiguous CTO site

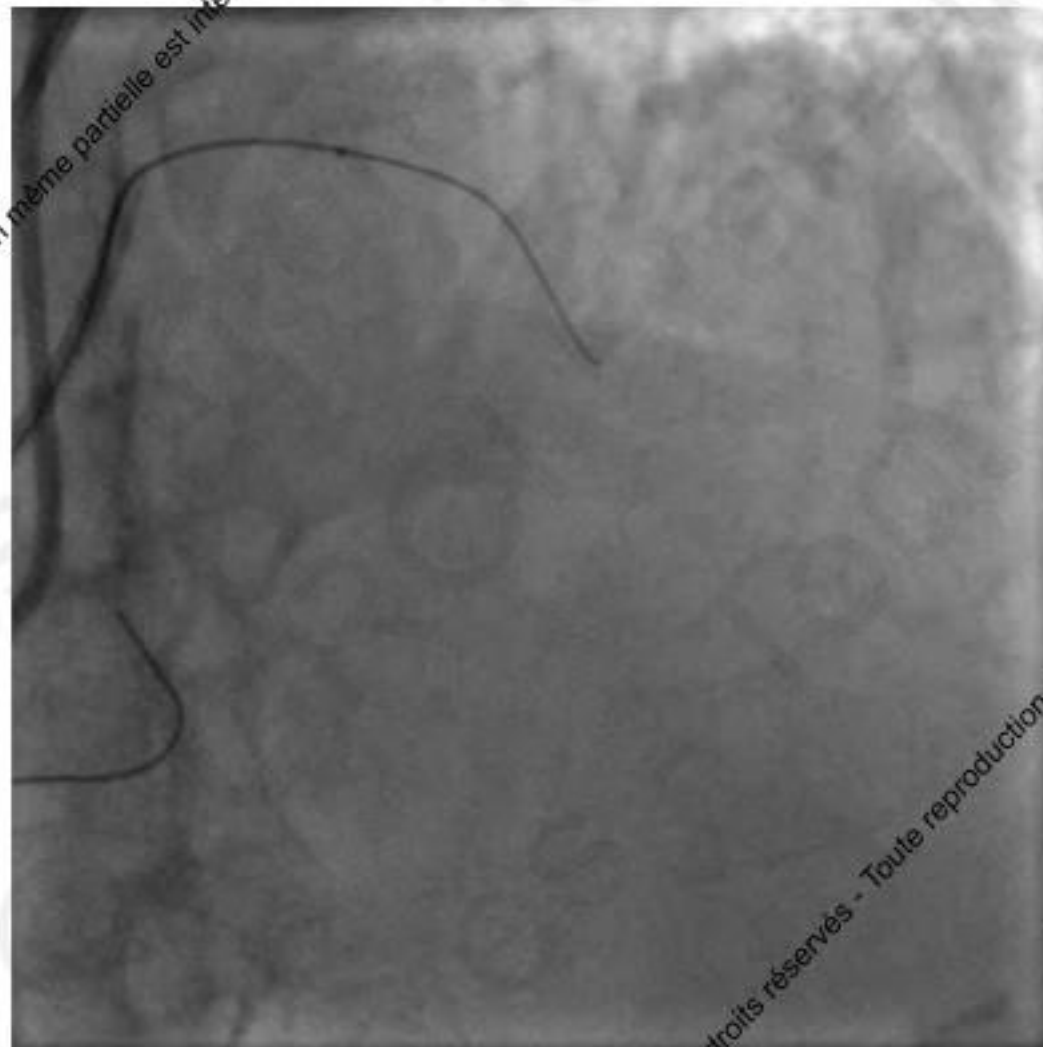


Finecross + Felder XT

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Proximal LAD old CTO: ambiguous CTO site

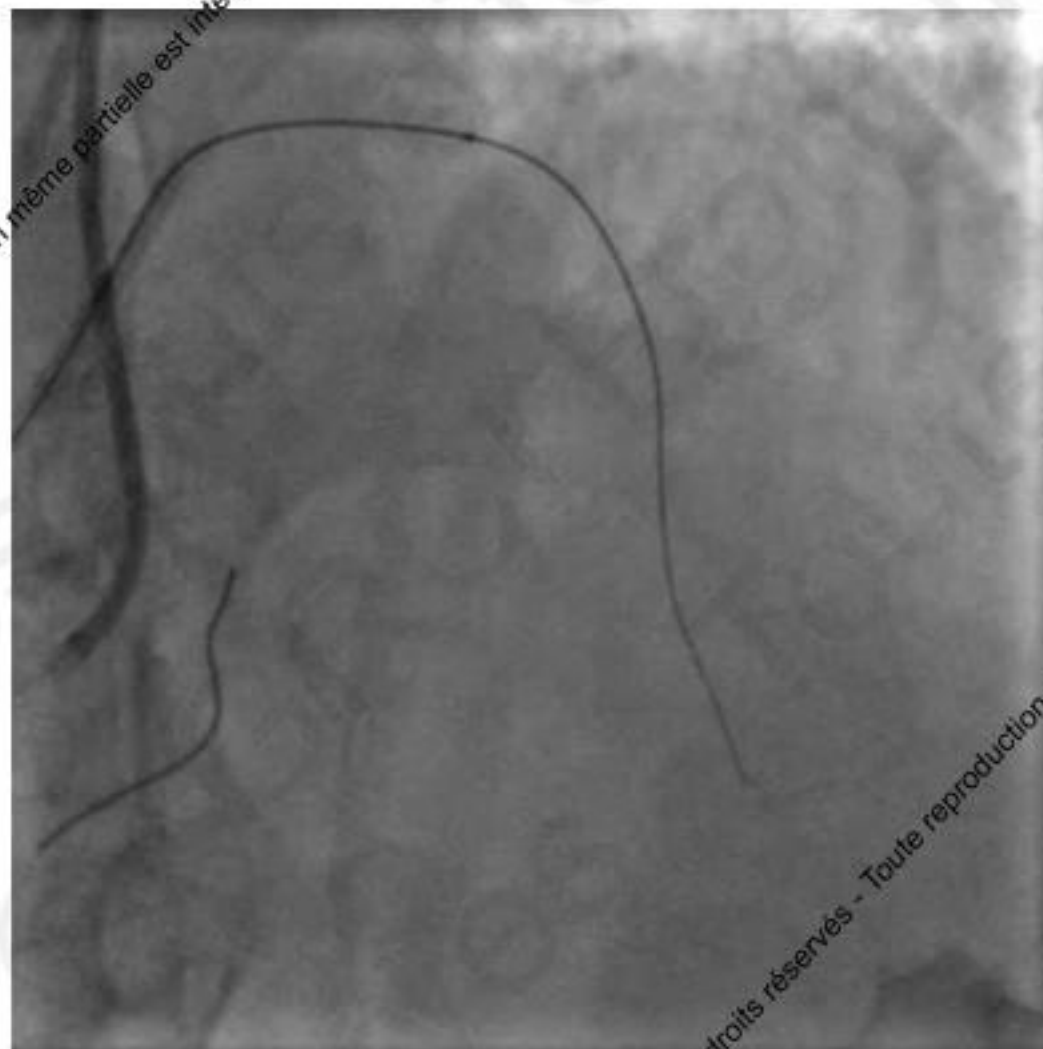


Finecross + Felder XT

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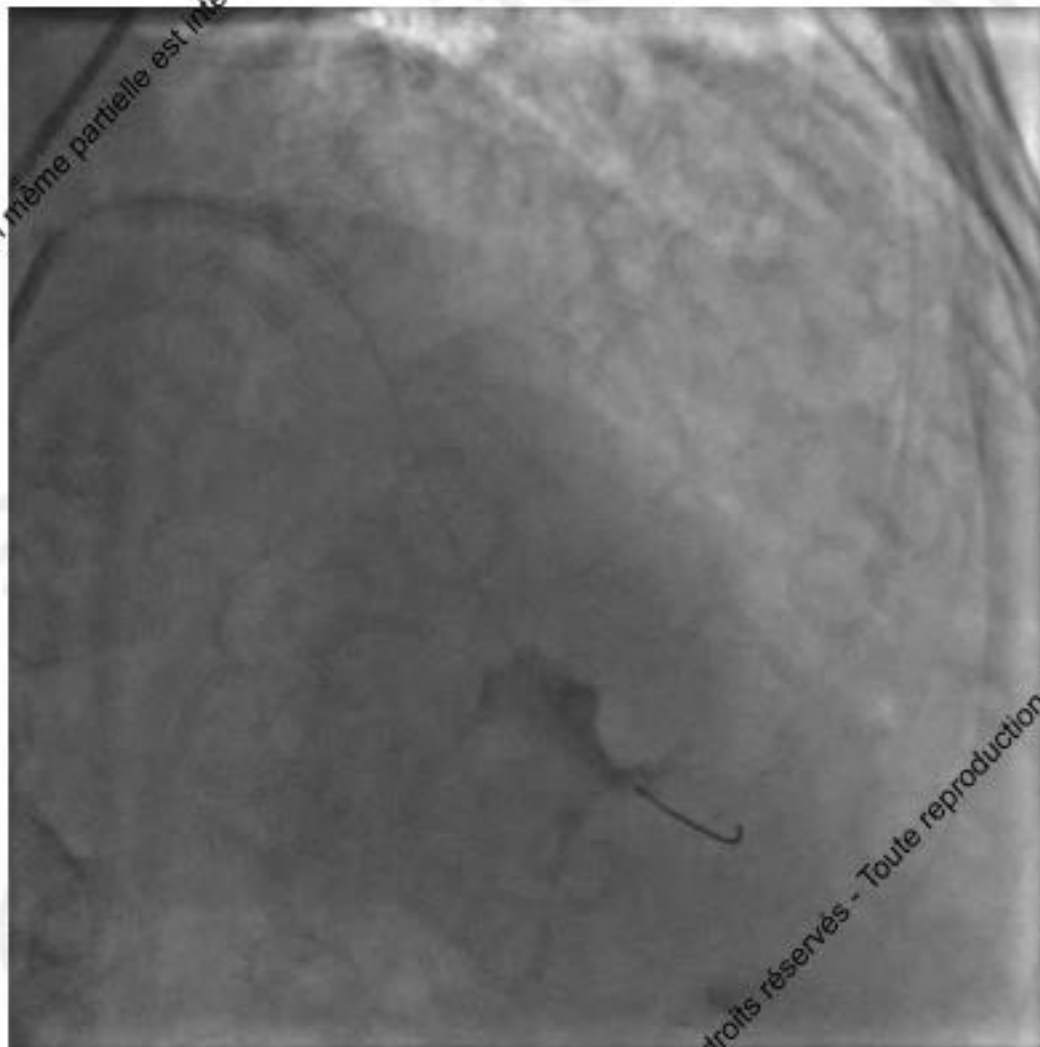
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Proximal LAD old CTO: ambiguous CTO site



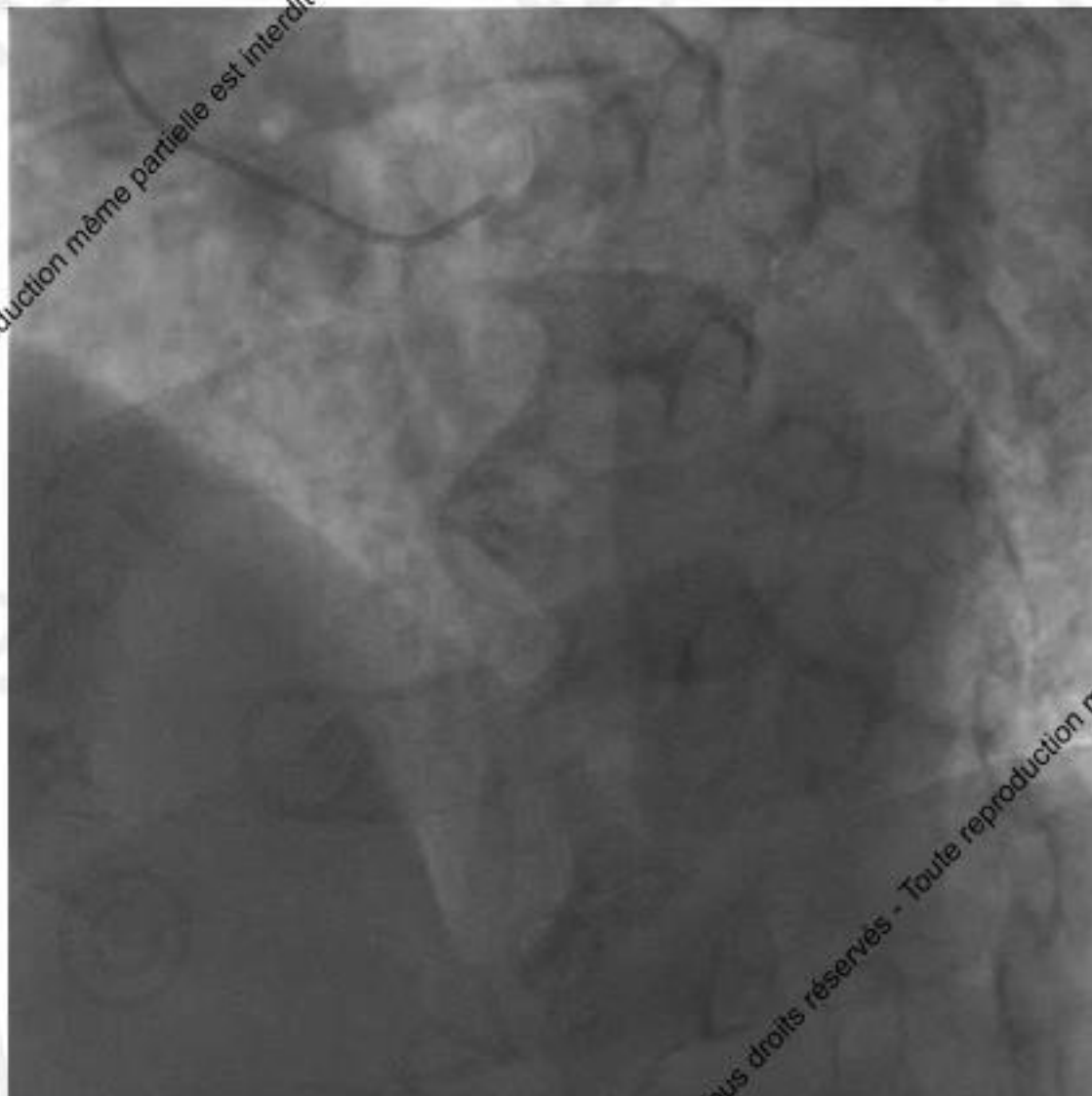
Finecross + Felder XT

Proximal LAD old CTO: ambiguous CTO site



Retrograde approach

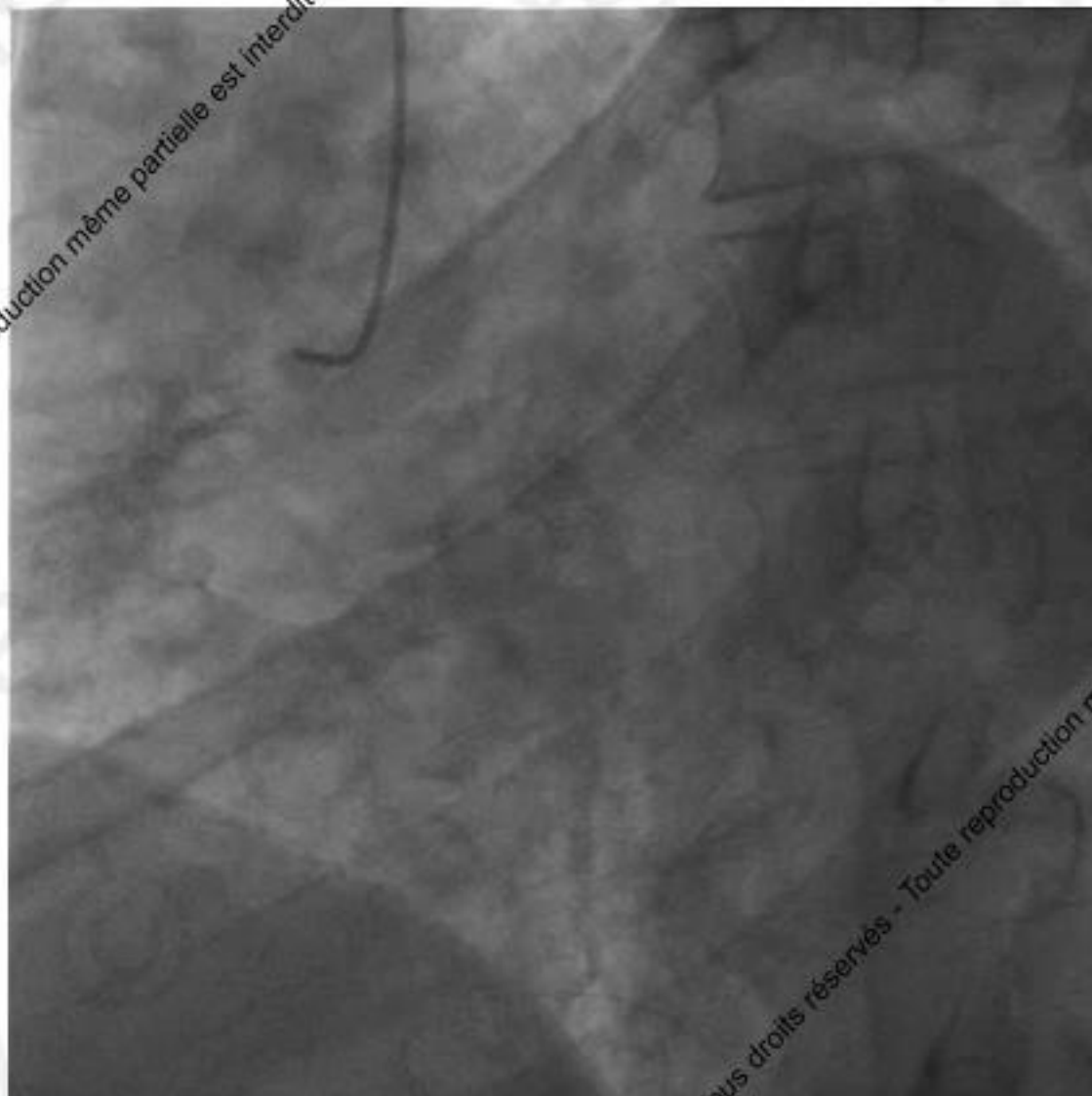
RCA CTO with previous stent



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RCA CTO with previous stent

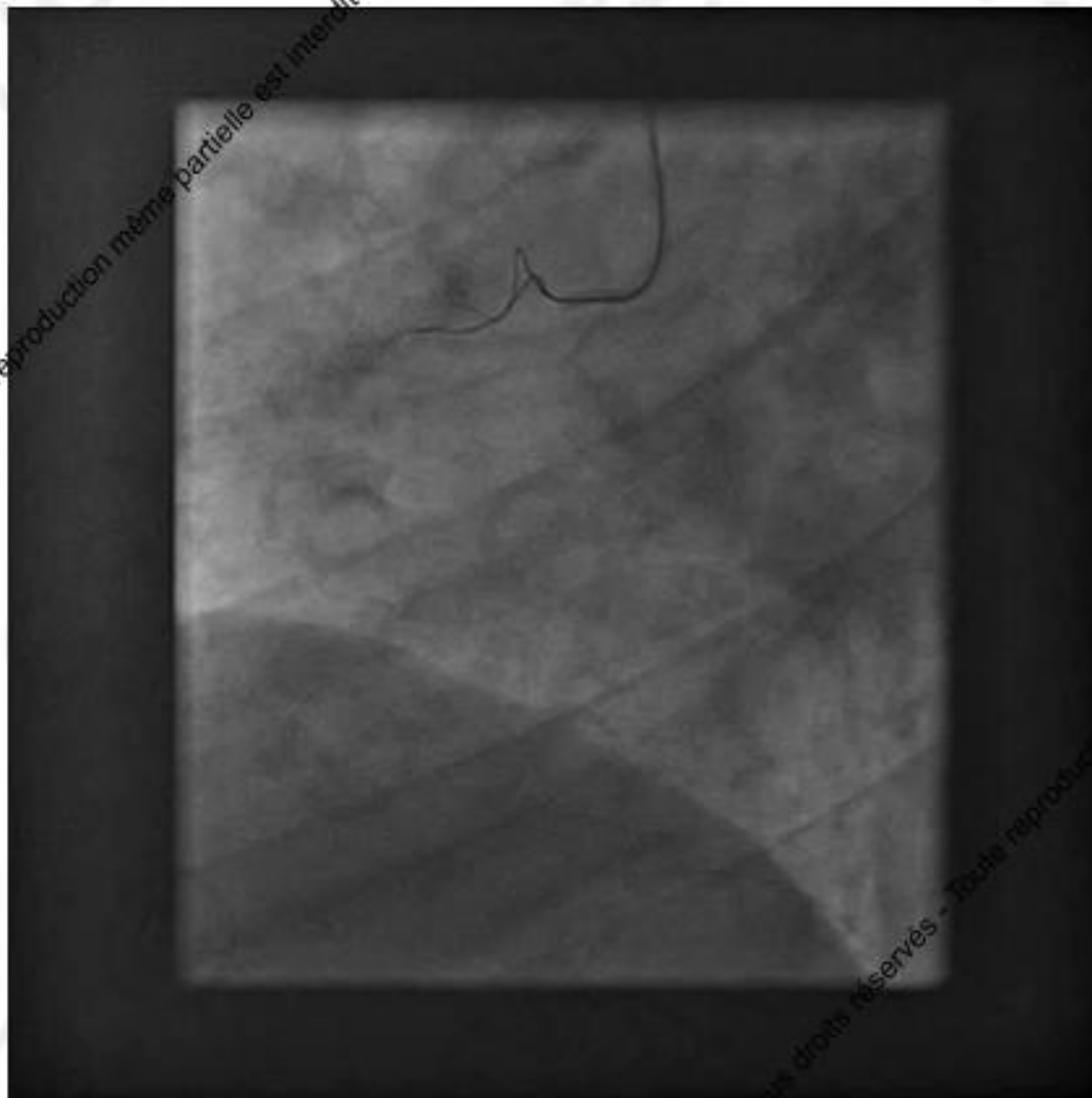


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RCA CTO with previous stent

Double radial
AL1



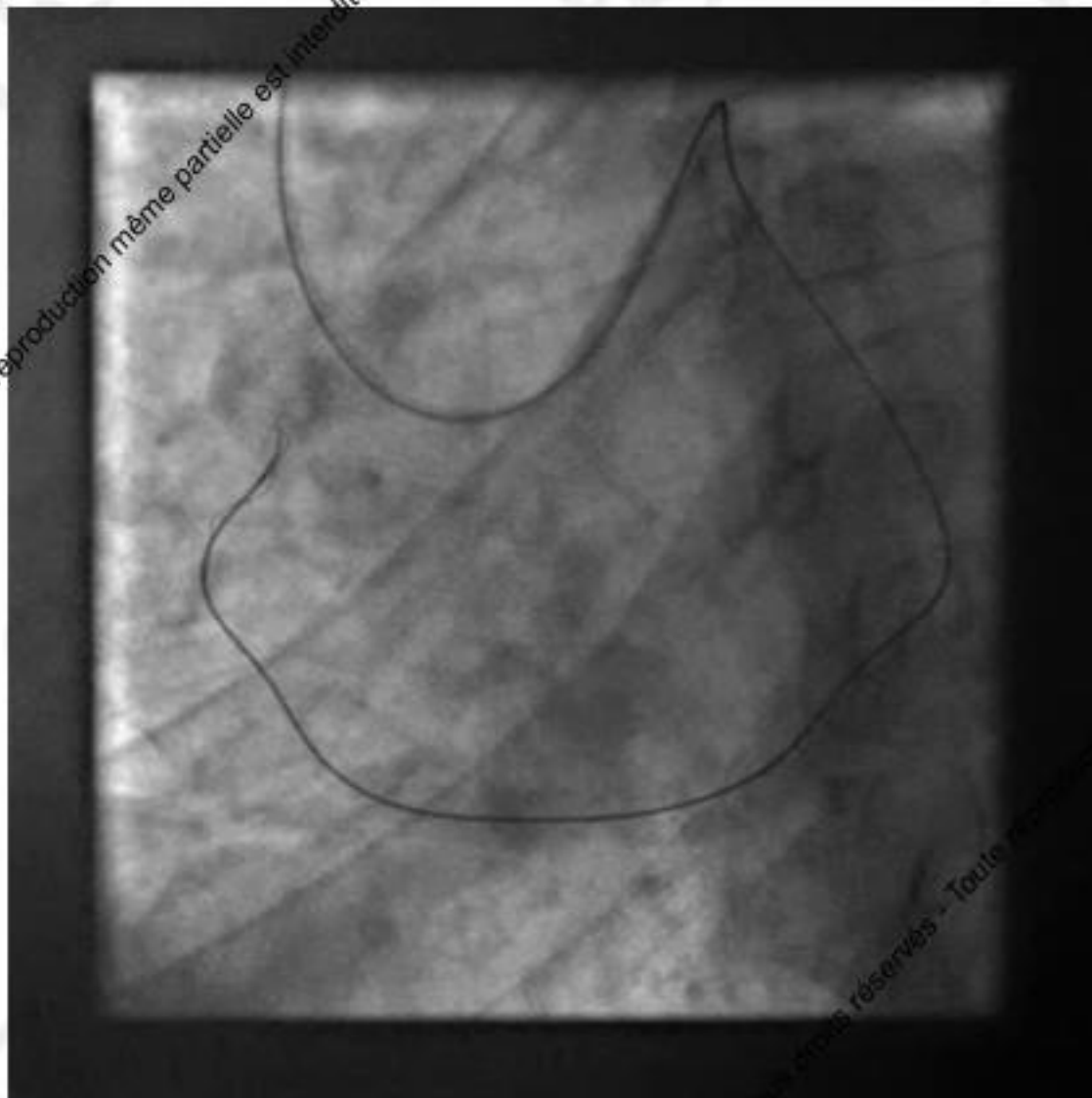
RCA CTO with previous stent: retrograde approach



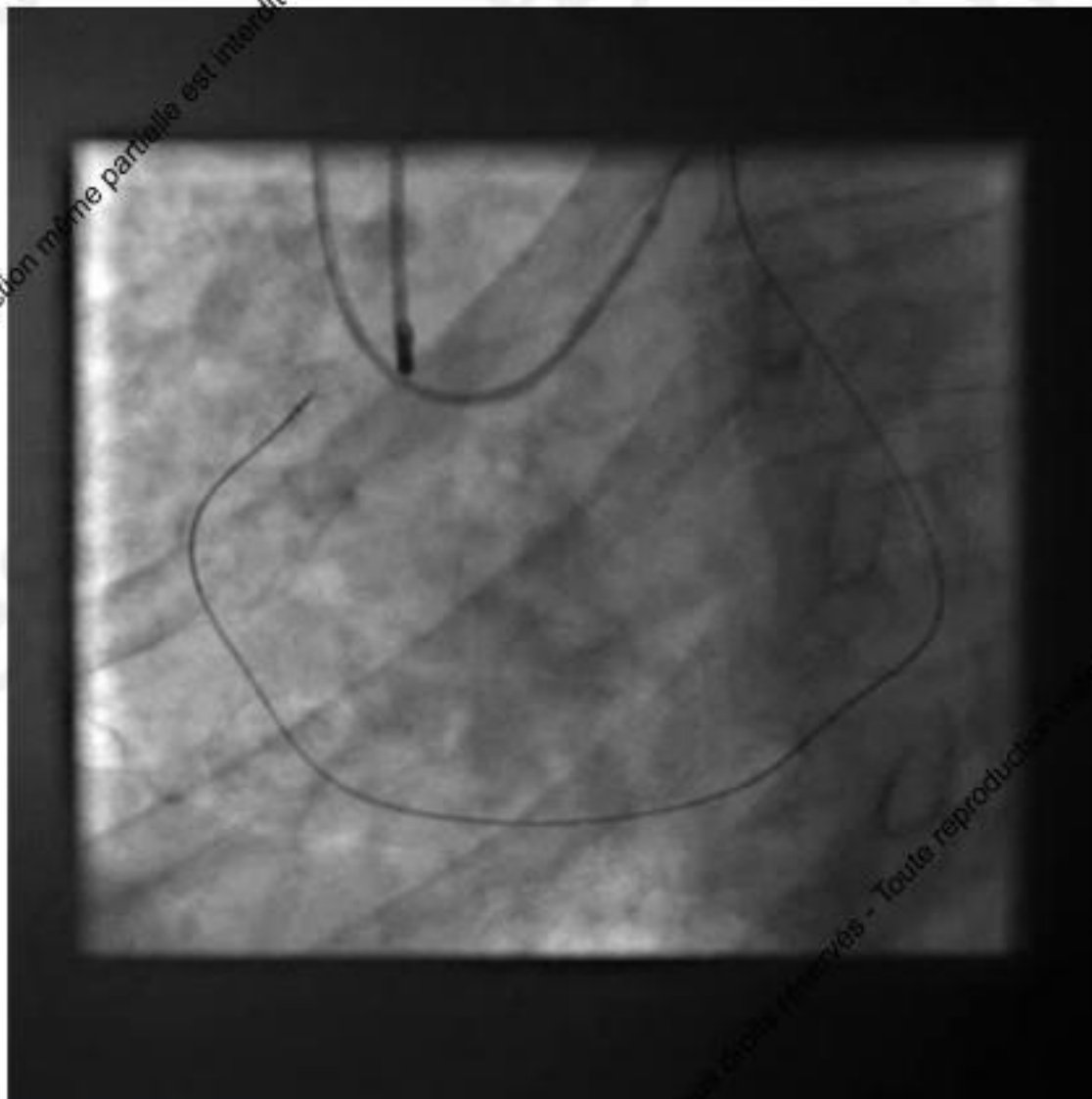
Sion
Corsair

RCA CTO with previous stent: retrograde knuckle

Fielder XT
Corsair

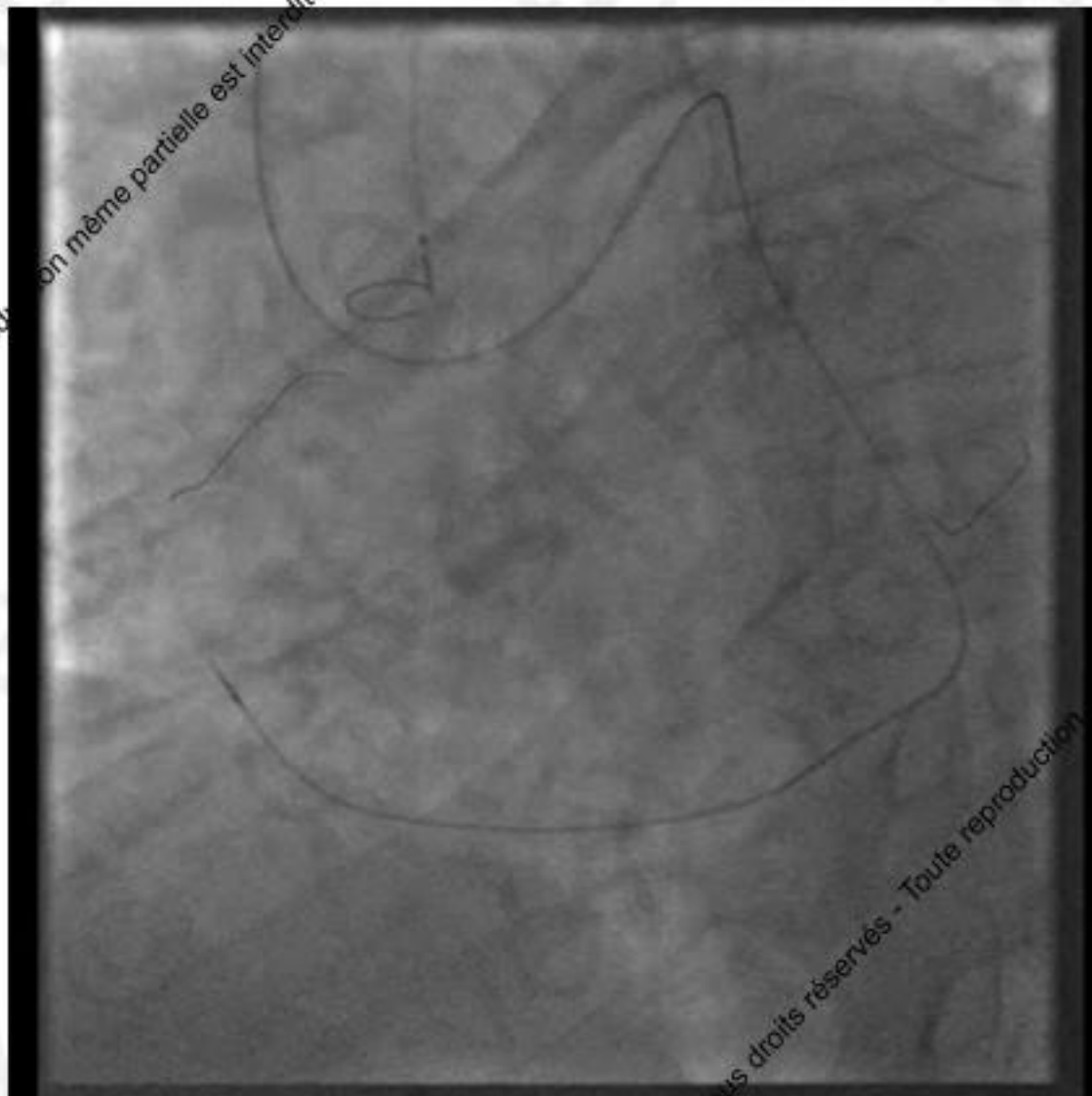


RCA CTO with previous stent

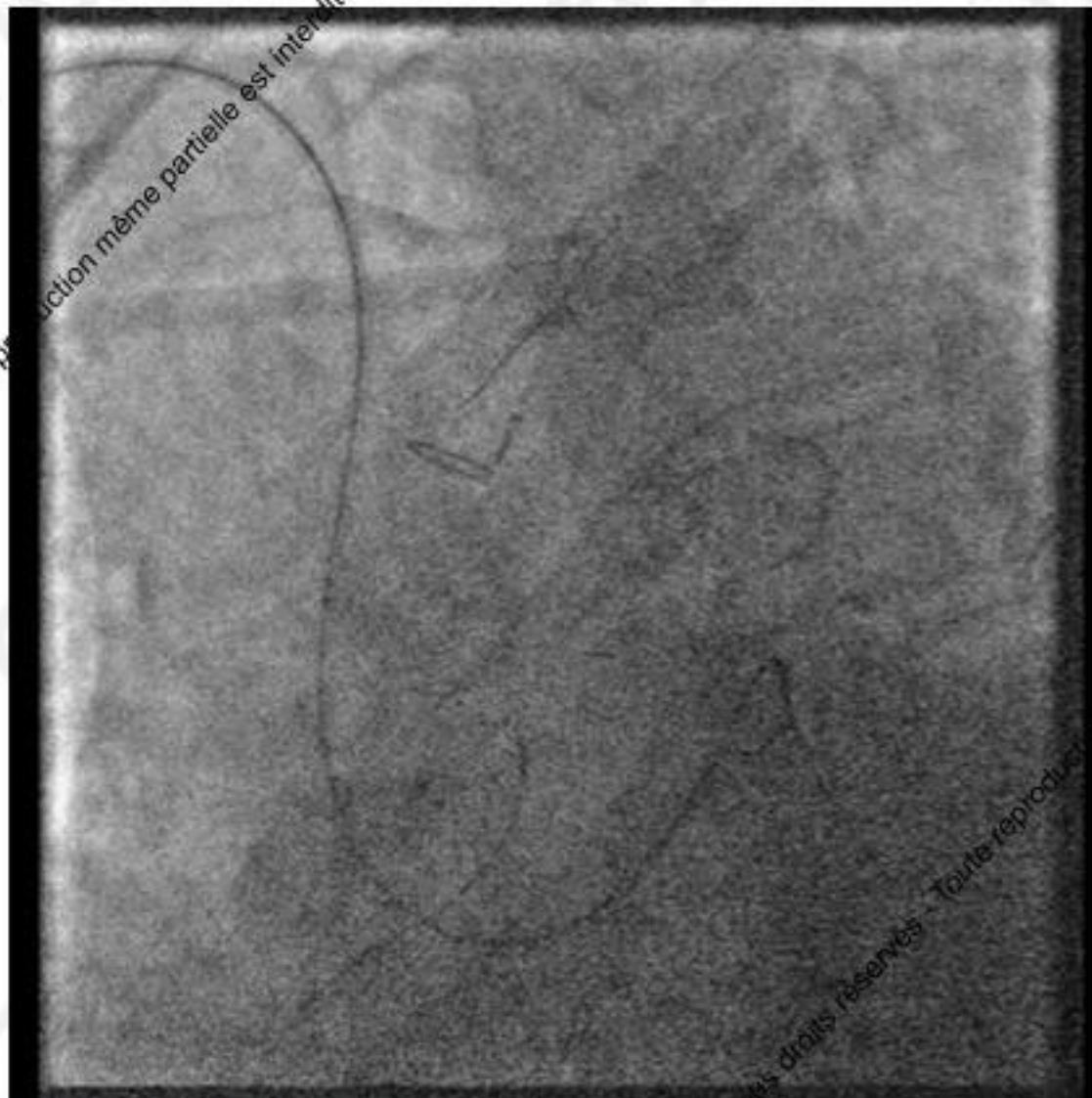


RCA CTO with previous stent: retrograde crossing and snaring

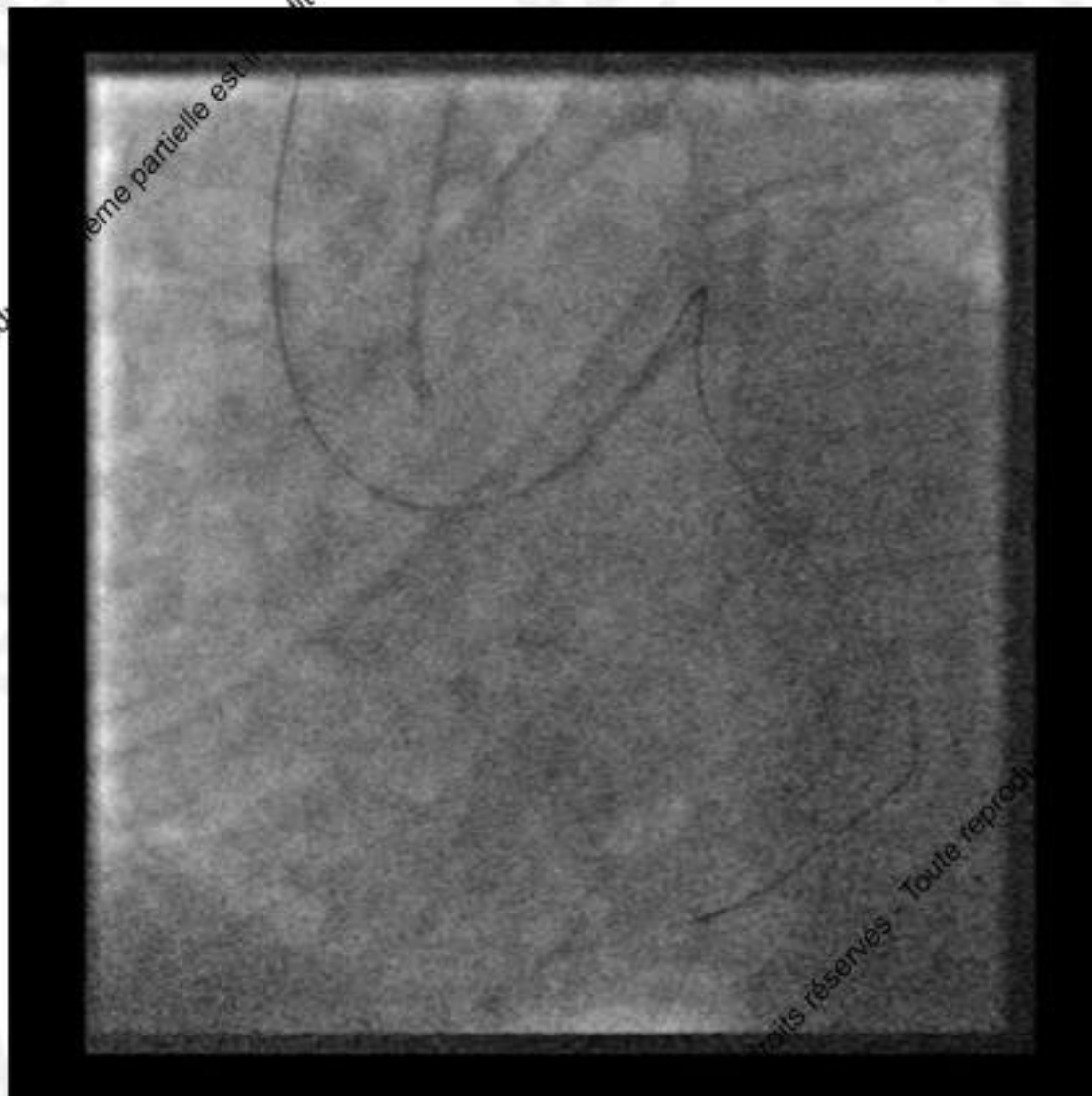
RG3



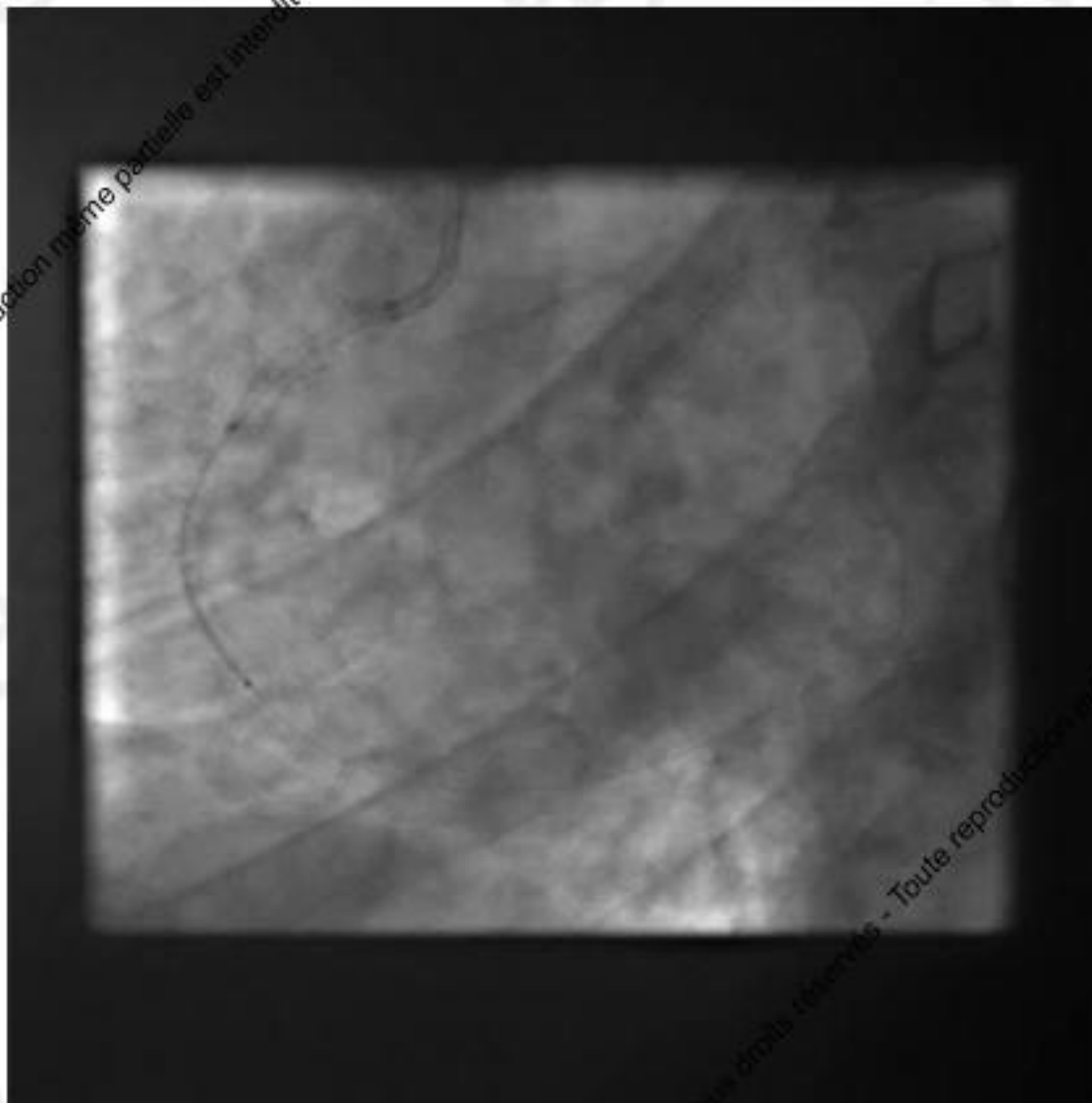
RCA CTO with previous stent: retrograde wire snaring



RCA CTO with previous stent: JR3.5



RCA CTO with previous stent: stenting



RCA CTO with previous stent: final result



Conclusions (1)

- Antegrade is the first approach: historically, practically and in any operator experience
- Vascular approach still debated, but the **radial approach (even double)** is frequently possible.

Good support with **catheter diameter, shape** and **handling anchoring balloon, 5 in 6 ...**

- Diameter also depending on device and technique selection

Conclusions (2)

- CTO PCI is a **multiwire procedure**: **Soft polymeric + tapered wire** and **microcatheter** to begin, then **stiff wires**.
- Guidance: angio with **controlateral injection, IVUS, CT Scan** (cathlab integration ?).
- Sometimes a primary retrograde approach is preferred but still **some antegrade work (reverse CART, externalisation, snaring)**.
- Retrograde approach **accumulates** the techniques and tips and tricks and is reserved to **experienced operators**