

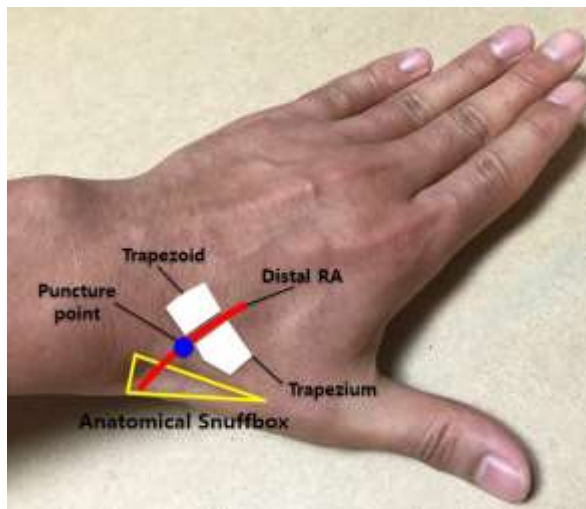


COMPLEX PCI 2018

Case Presentation II
Seoul, Korea, 29 Nov 2018



Recannulation of Distal Radial Artery for Staged Procedure After Successful Primary PCI



Yongcheol Kim

Chonnam National University Hospital
Gwangju, Korea

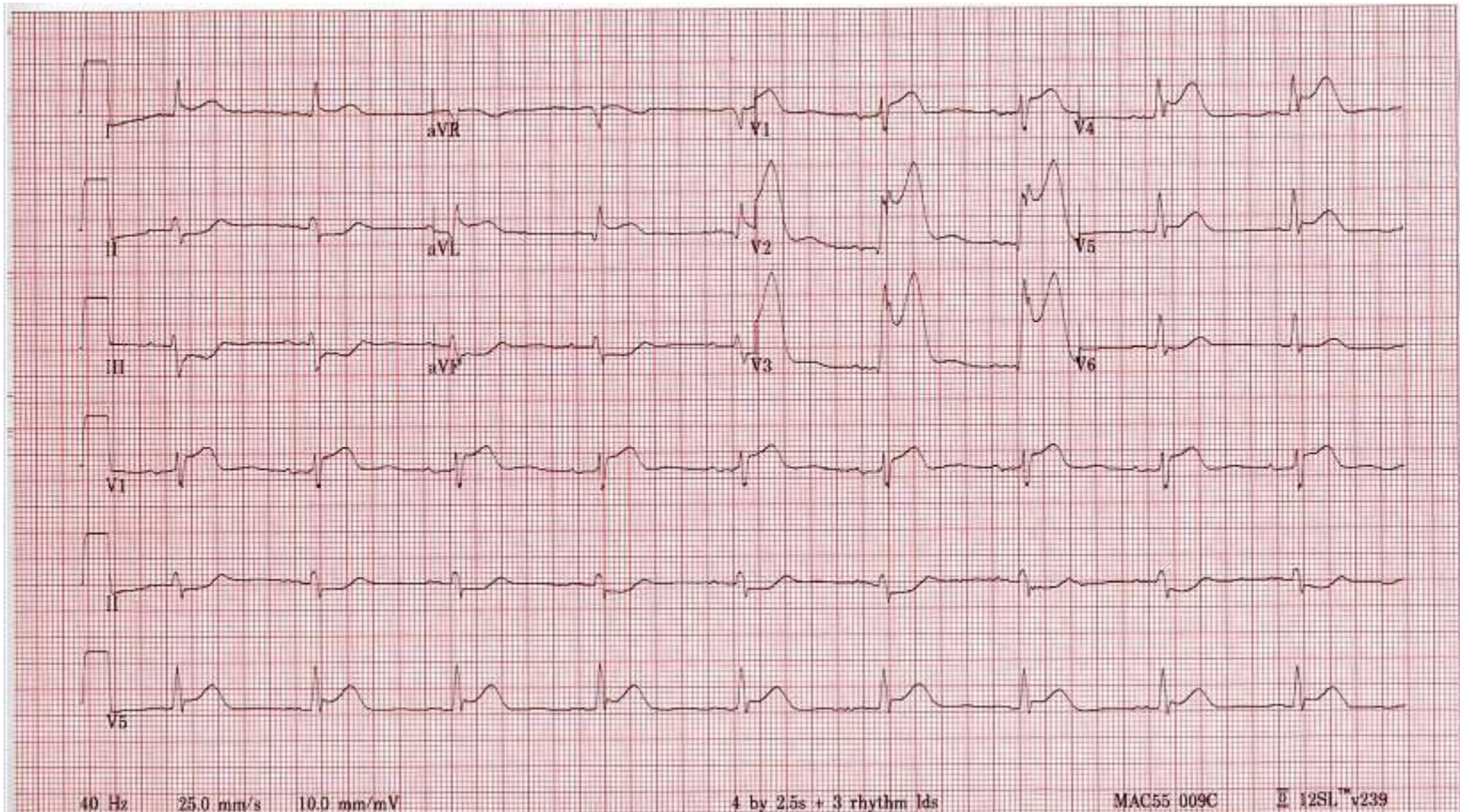


Ahn OO (76/M)

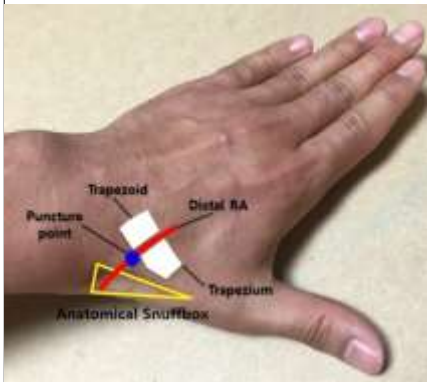
(Case No: 20180703-213-056)



- Sudden onset chest pain during 3-hour
- Current smoking
- V/S: stable
- Loading of aspirin 300mg and ticagrelor 180mg

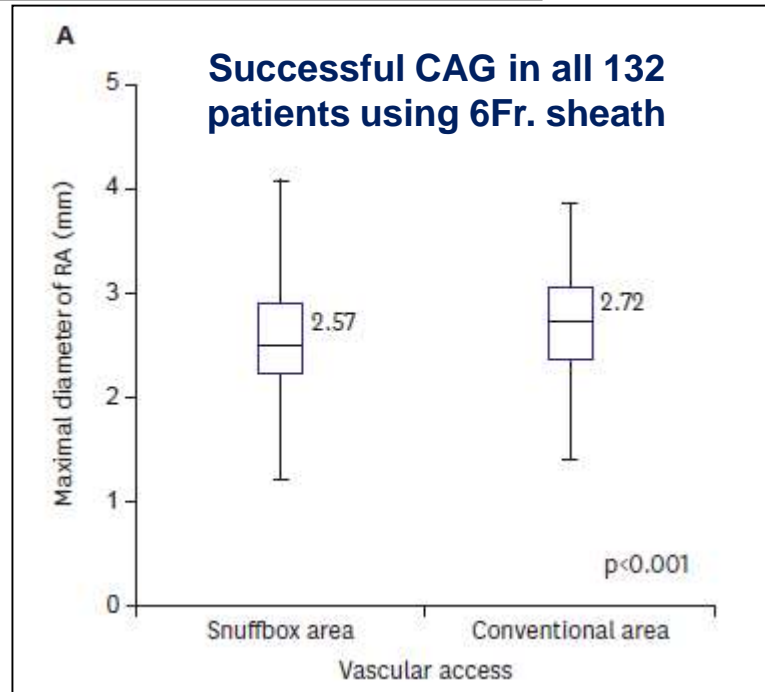


Feasibility of Coronary Angiography and Percutaneous Coronary Intervention via Left Snuffbox Approach



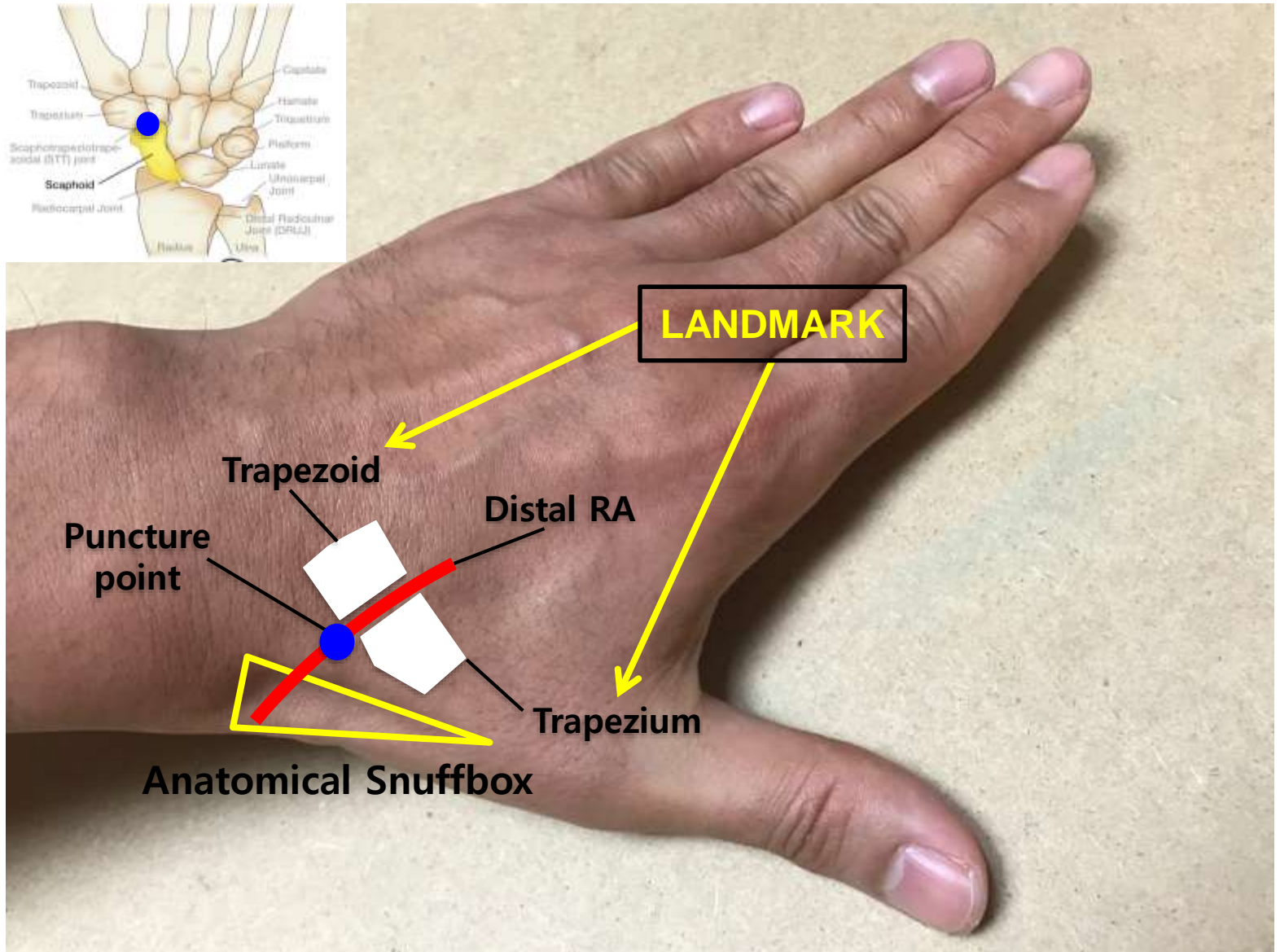
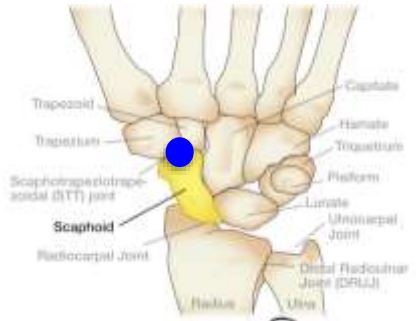
Yongcheol Kim , MD, Youngkeun Ahn , MD, PhD, Inna Kim , MD, PhD, Doo Hwan Lee , RT, Min Chul Kim , MD, PhD, Doo Sun Sim , MD, PhD, Young Joon Hong , MD, PhD, Ju Han Kim , MD, PhD, and Myung Ho Jeong , MD, PhD

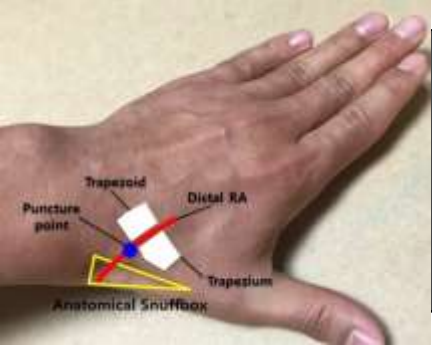
Department of Cardiology, Cardiovascular Center, Chonnam National University Hospital, Gwangju, Korea



| Study | Period | Patients | Success rate (cannulation) |
|-------|---------------------|----------|----------------------------|
| CNUH | Nov 2017 ~ Oct 2018 | 367 | 92.1% (n=338) |

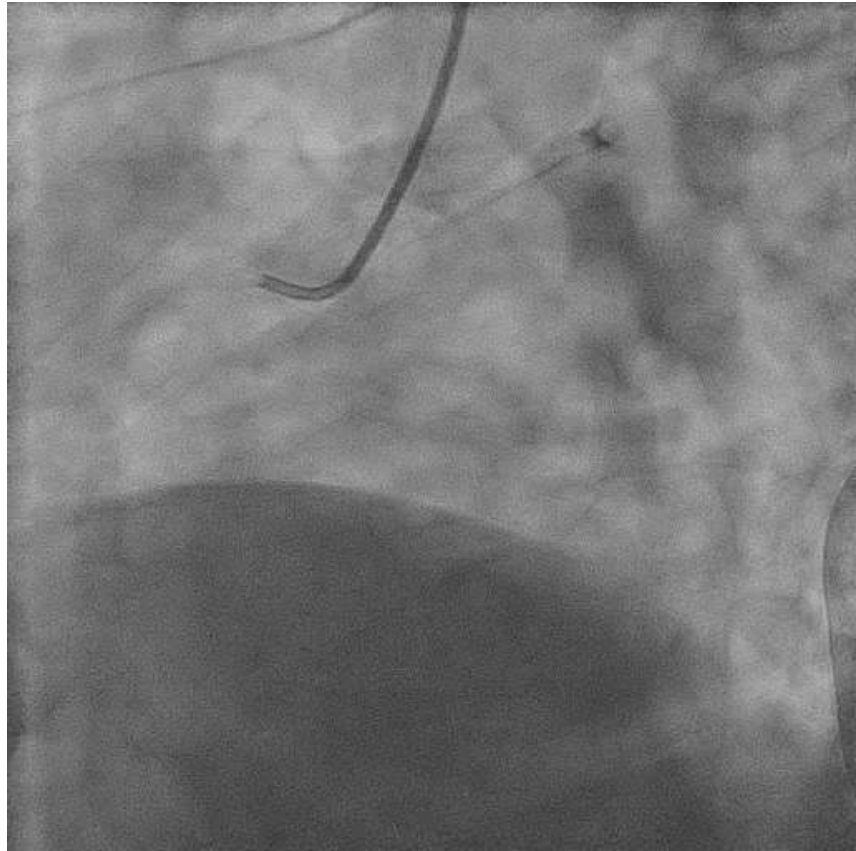
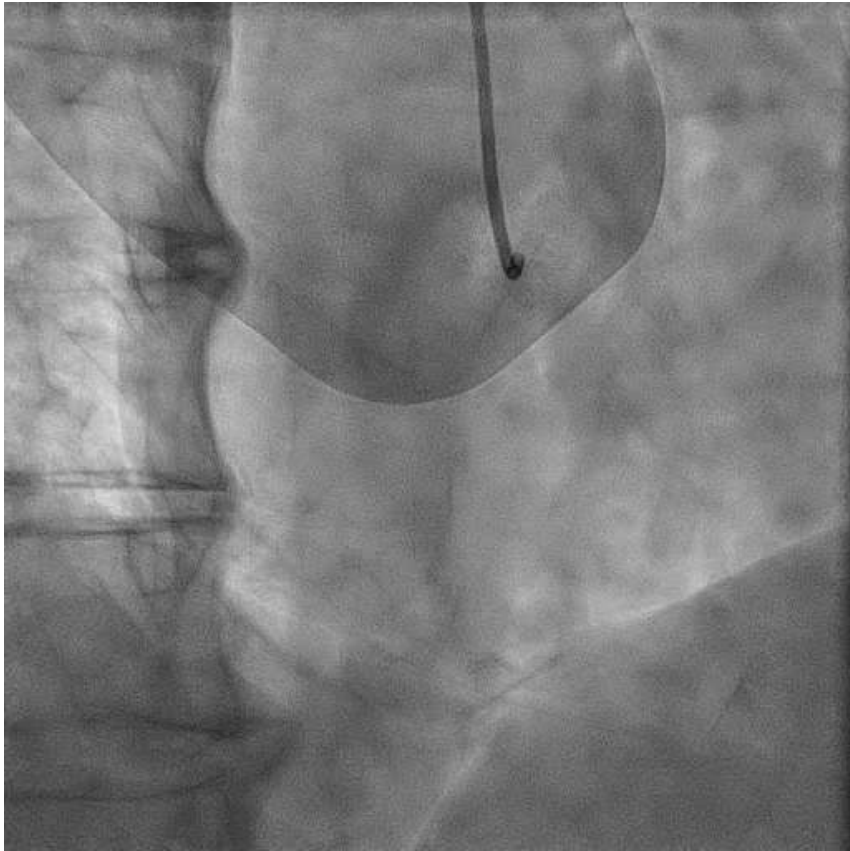
Where is the anatomical snuffbox?



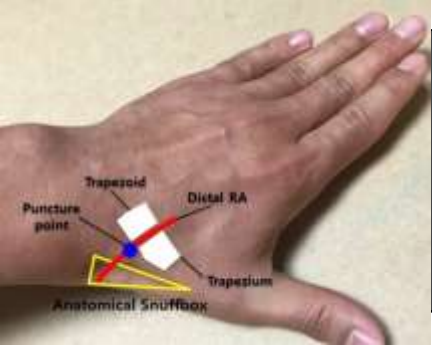


Urgent CAG

Left snuffbox approach (6 Fr sheath)
(Snuffbox puncture time: 100 sec)

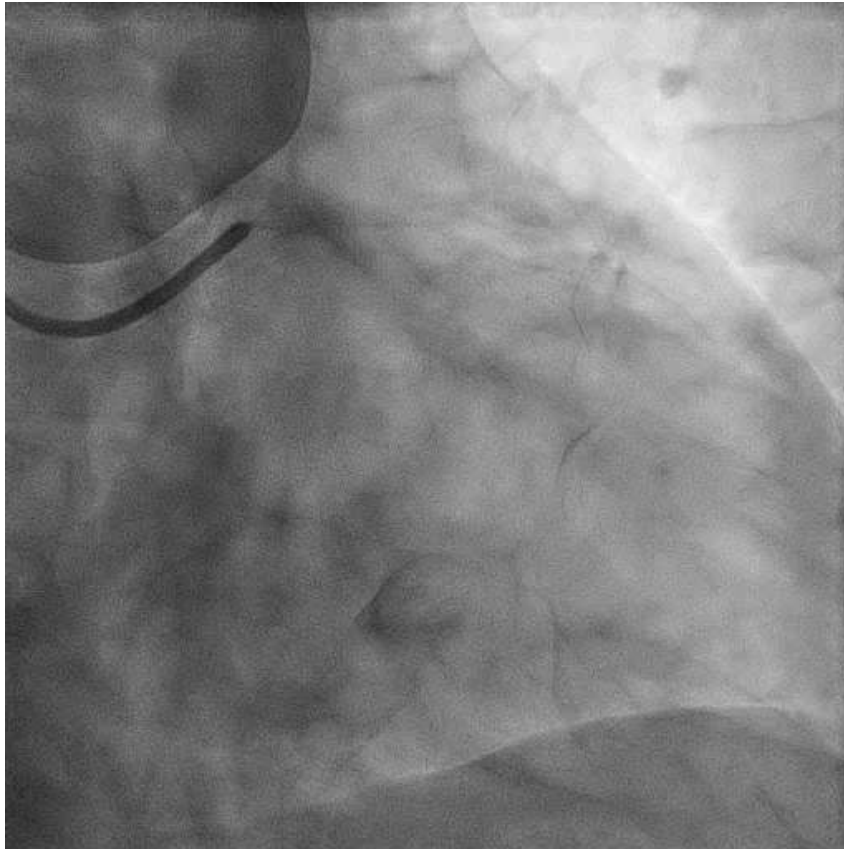


Diffuse intermediate stenosis in p-to-mRCA (JL4 5Fr)

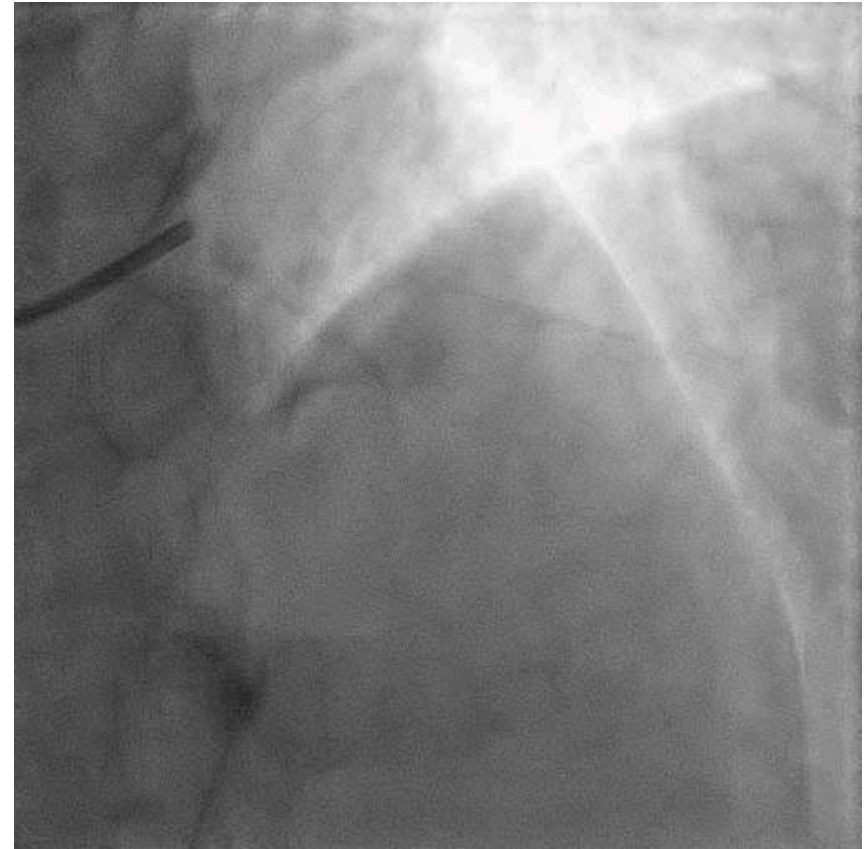


Diagnostic CAG

Left snuffbox approach (6 Fr sheath)
EBU3.5 6Fr



Mild stenosis in dLCx



Severestenosis in pLAD
intermediate to severe stenosis in mLAD
TIMI I flow



Trends of changing guidelines regarding STEMI with MVD



2015 ACC/AHA guidelines

| 2013 Recommendation | 2015 Focused Update Recommendation |
|---|---|
| <p>Class III: Harm PCI should not be performed in a noninfarct artery at the time of primary PCI in patients with STEMI who are hemodynamically stable (11-13). (Level of Evidence: B)</p> | <p>Class IIb PCI of a noninfarct artery may be considered in selected patients with STEMI and multivessel disease who are hemodynamically stable, either at the time of primary PCI or as a planned staged procedure (11-24). (Level of Evidence: B-R)</p> |

2017 & 2018 ESC guidelines

CHANGE IN RECOMMENDATIONS

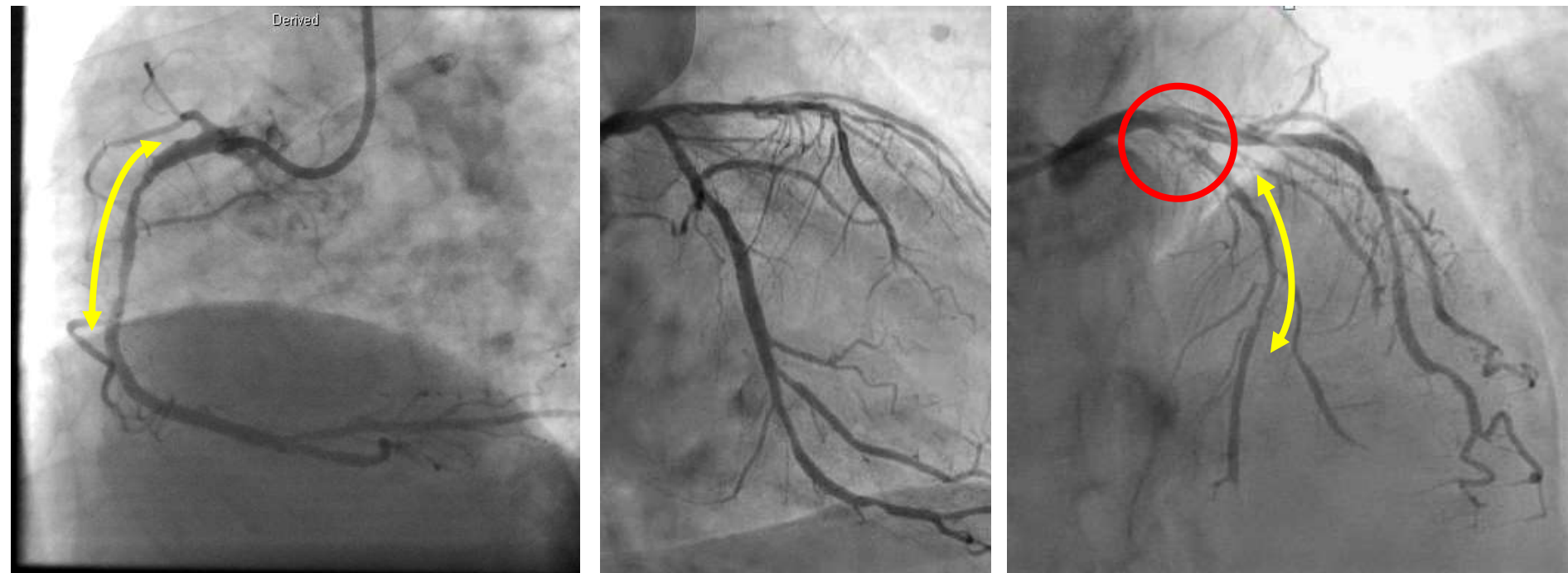
| 2012 | 2017 |
|------|---|
| | <p>Complete Revascularization^b PRAMI¹⁶⁸, DANAMI-3-PRIMULTI¹⁷⁰, CYLPRIT¹⁶⁹, Compare-Acute¹⁷¹</p> |

Procedural aspects of the primary percutaneous coronary intervention strategy

| Non-IRA strategy | | |
|--|-----|---|
| Routine revascularization of non-IRA lesions should be considered in STEMI patients with multivessel disease before hospital discharge. ¹⁶⁷⁻¹⁷³ | IIa | A |

Any CR should be preferred in the stable STEMI

Staged complete revasc. for non-culprit lesions



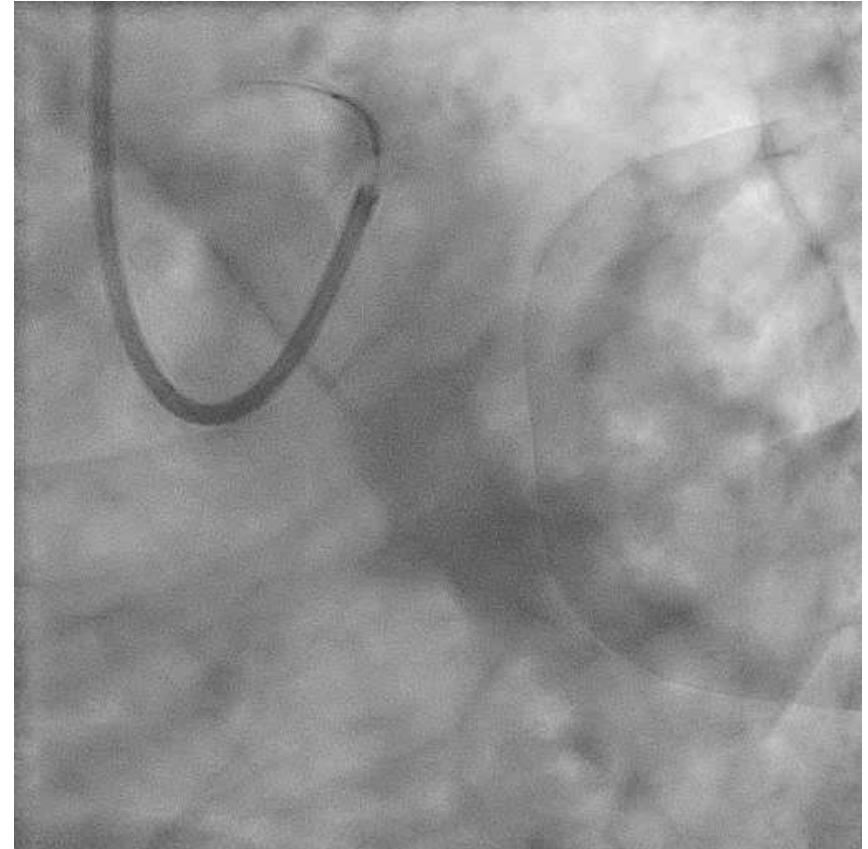
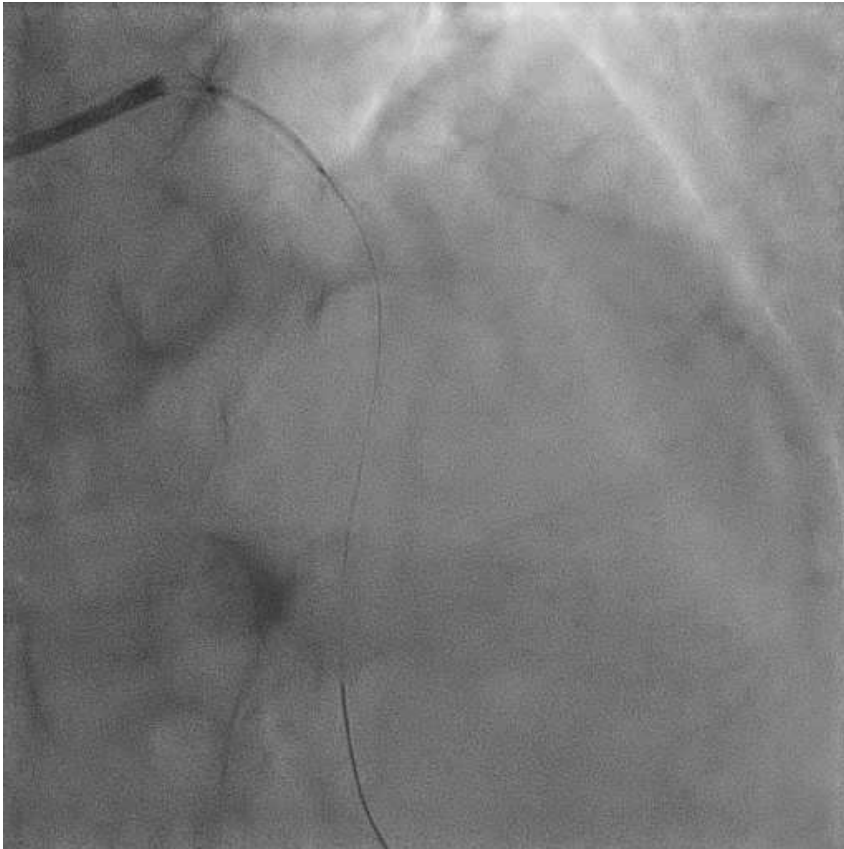
Diffuse intermediate stenosis in p-to-mRCA
Mild stenosis in dLCx
Sever stenosis in pLAD
intermediate to severe stenosis in mLAD



Primary PCI via left snuffbox approach



EBU3.5 6Fr for guiding, Runthrouth® PTCA wire



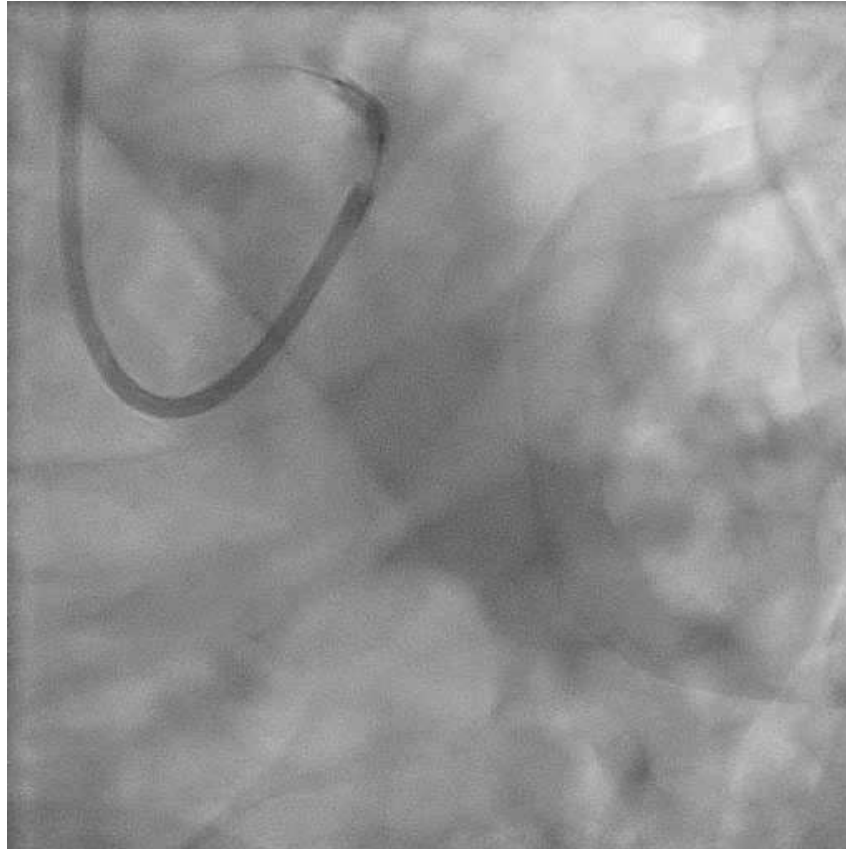
**Placement of Xience Alpine 2.5x18mm
after predilation with a 2.5x15mm compliant balloon**



Primary PCI via left snuffbox approach



EBU3.5 6Fr for guiding, Runthrouth[®] PTCA wire



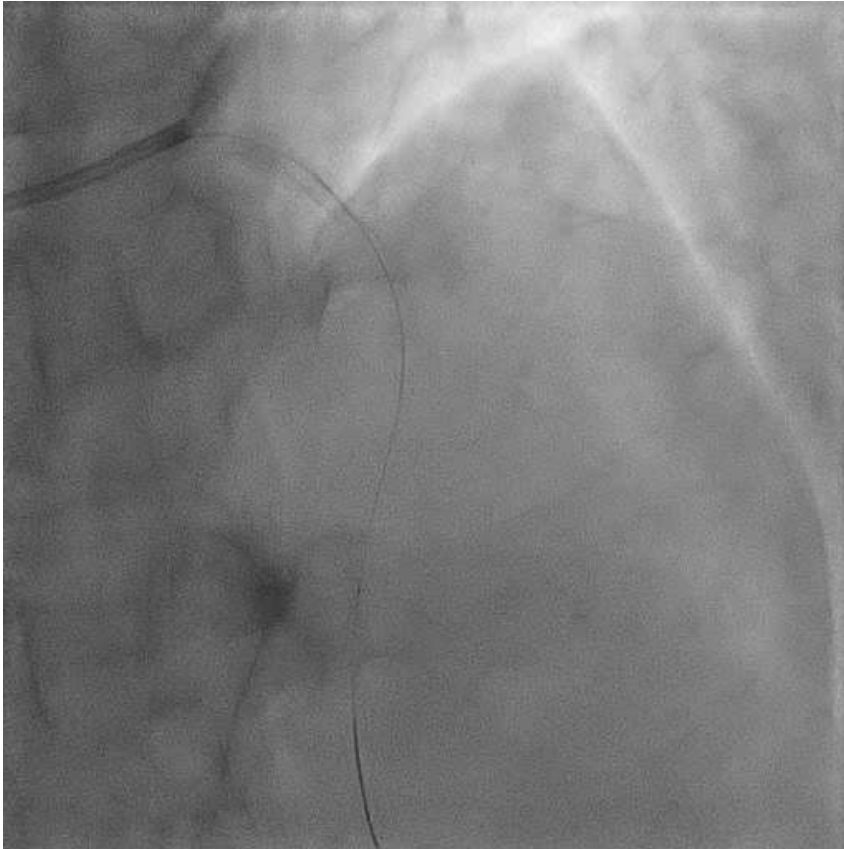
Xience Alpine 2.5x18mm implantation @ 10atm



Primary PCI via left snuffbox approach



EBU3.5 6Fr for guiding, Runthrouth[®] PTCA wire



Underexpansion in in-stent



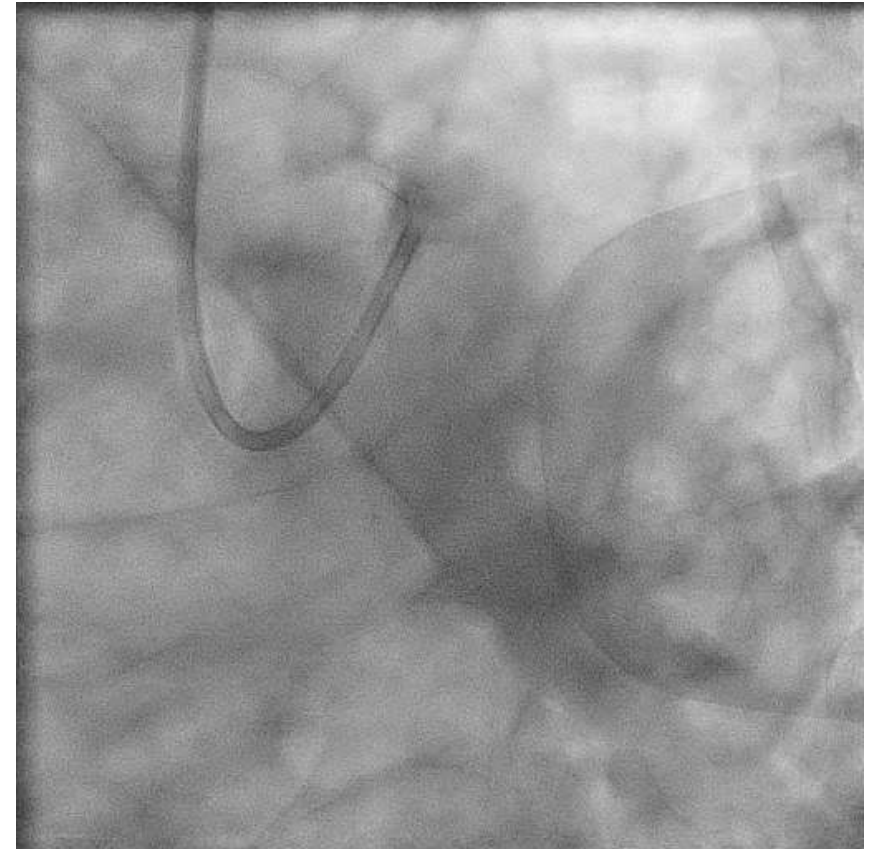
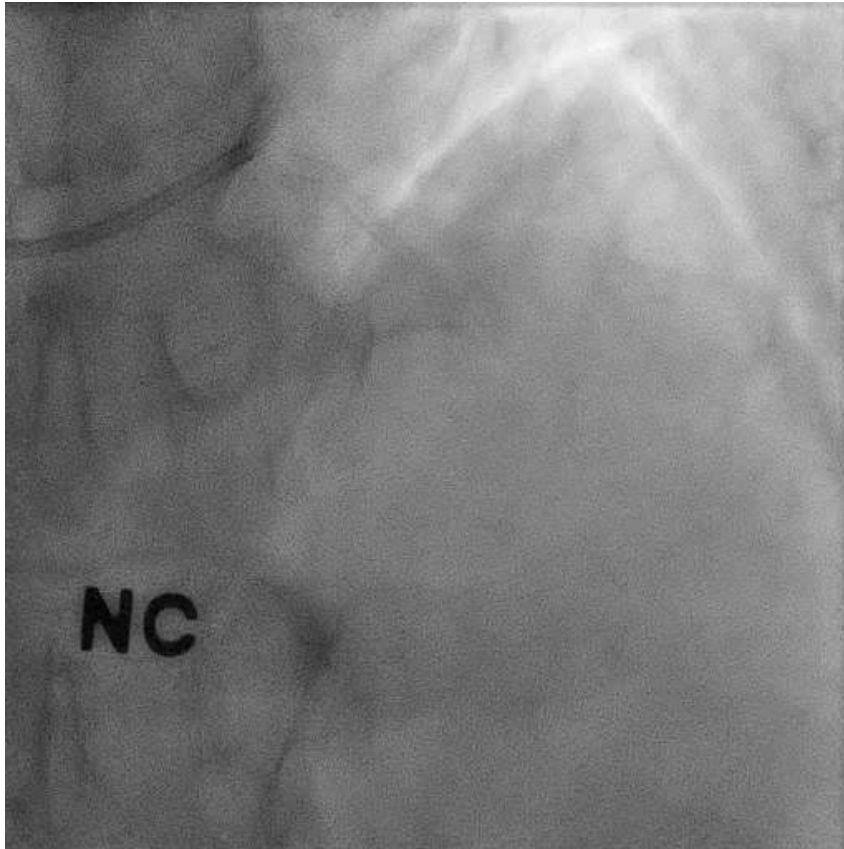
Postdilation with 2.5x10mm NC balloon



Successful Primary PCI via Lt. snuffbox approach



EBU3.5 6Fr for guiding, Runthrouth[®] PTCA wire



Final CAG



Hemostasis of snuffbox approach

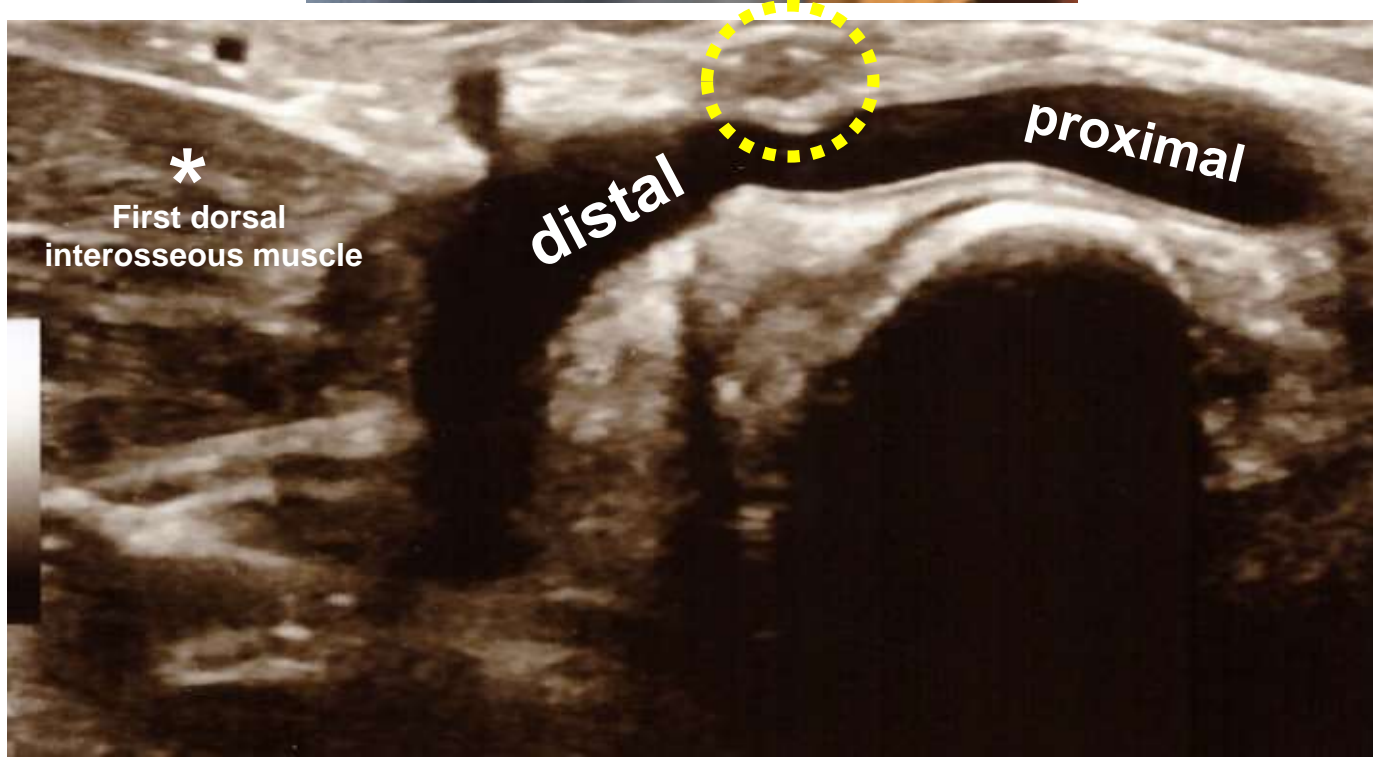


Hemostasis was achieved by compressive bandage method for 3-hour

Echo: EF(52.8%), RWMA on LAD territory



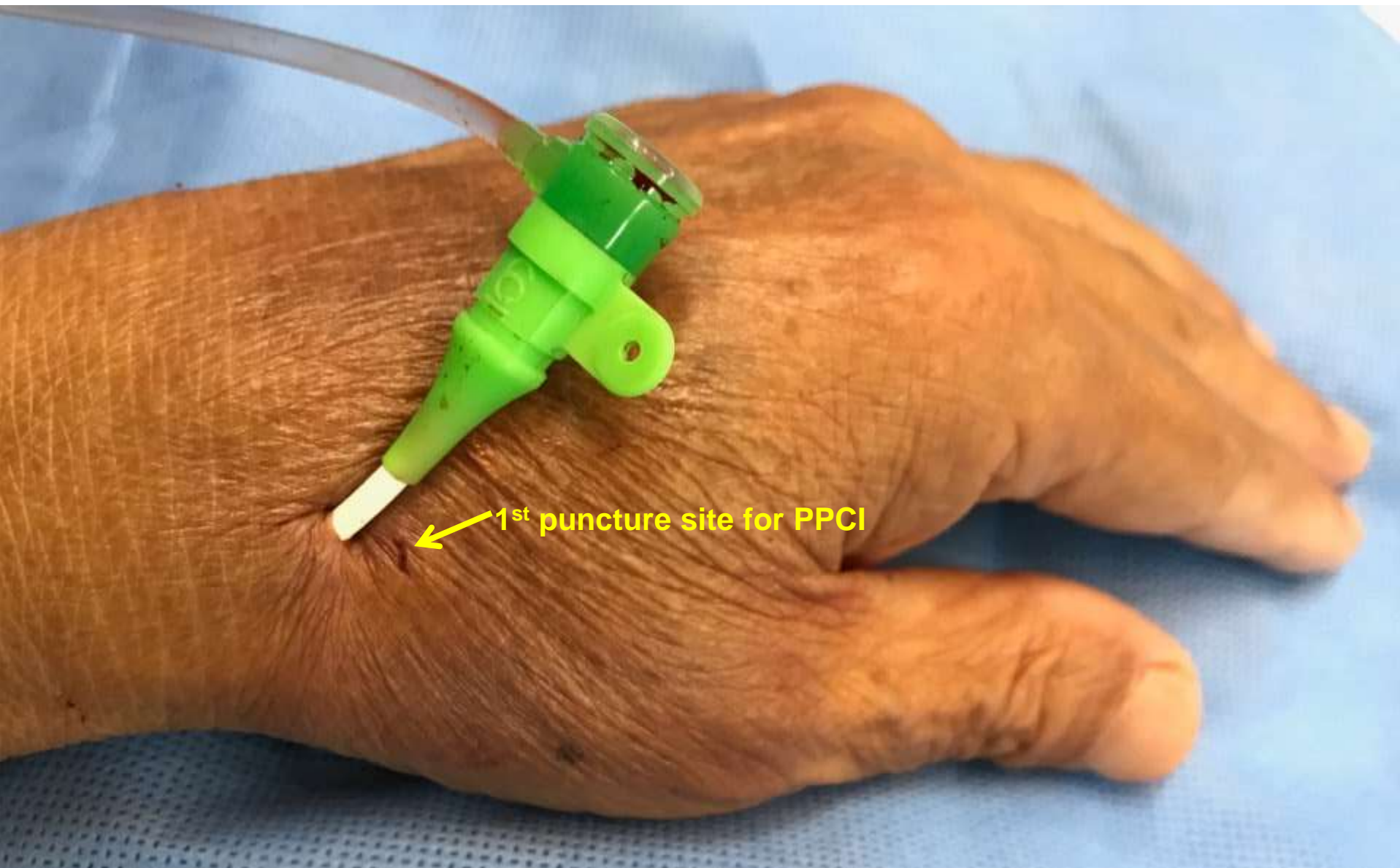
Can it possible to repuncture of left distal radial artery?





Repuncture of left distal radial artery

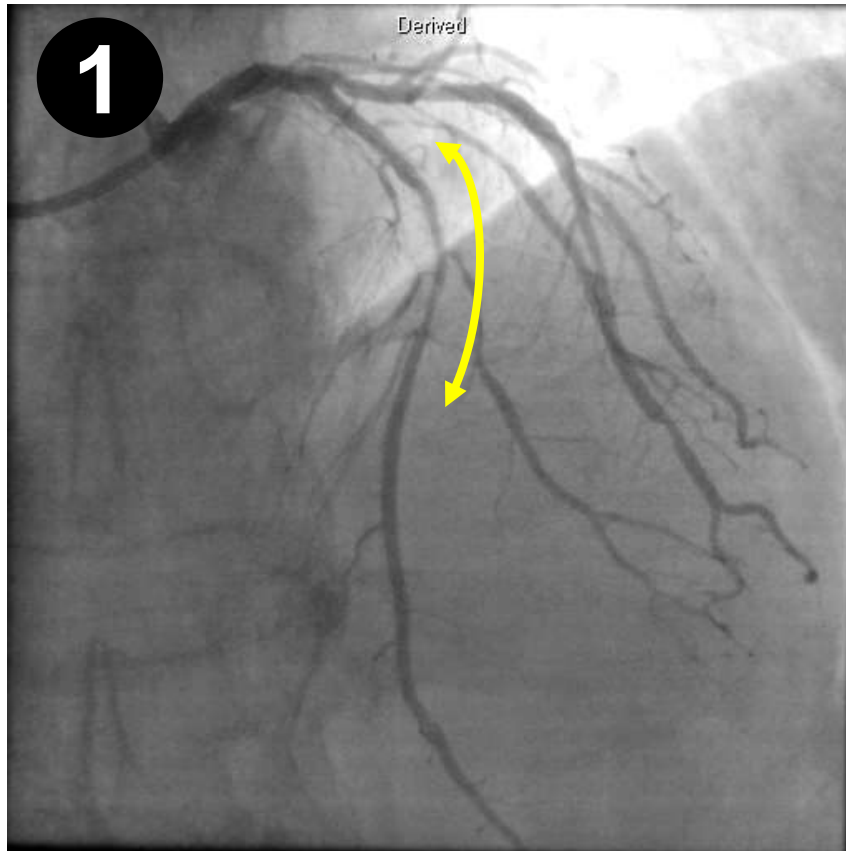
(Snuffbox puncture time: 68 sec)



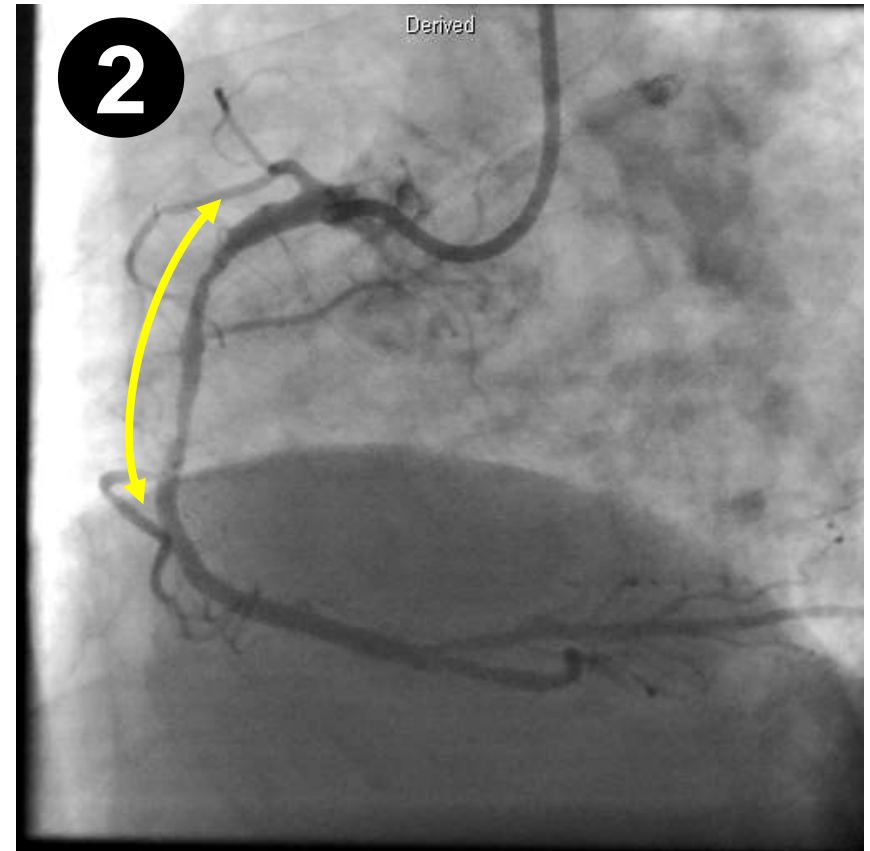
1st puncture site for PPCI



Planned 2nd-staged complete revasc. for non-culprit lesion via left snuffbox approach



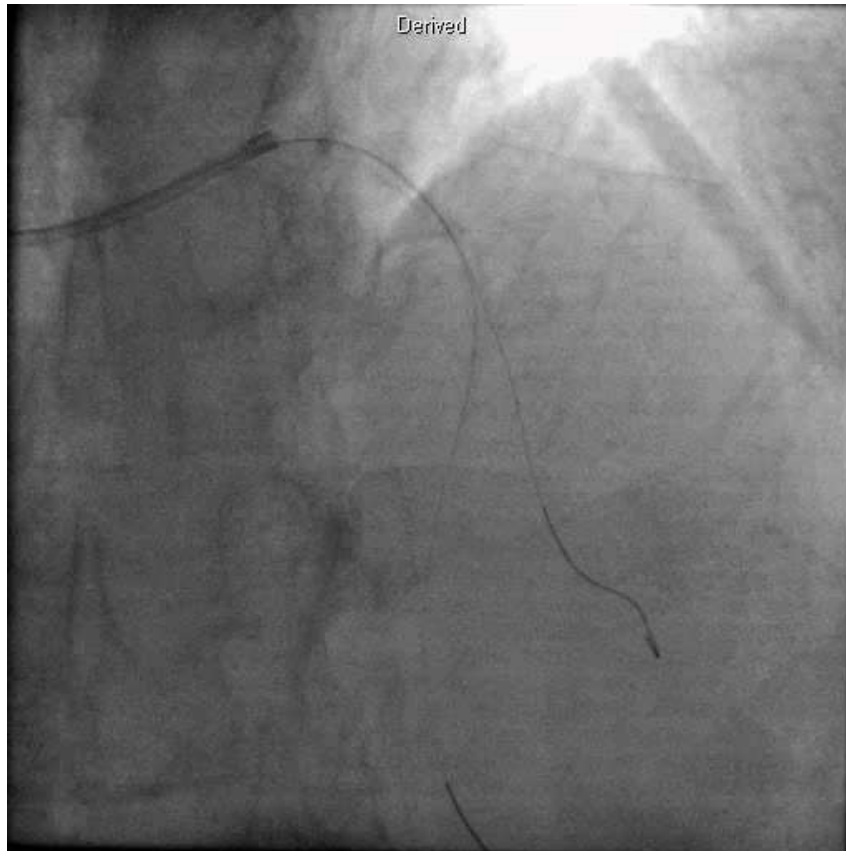
**Intermediate to severe stenosis in
mLAD**



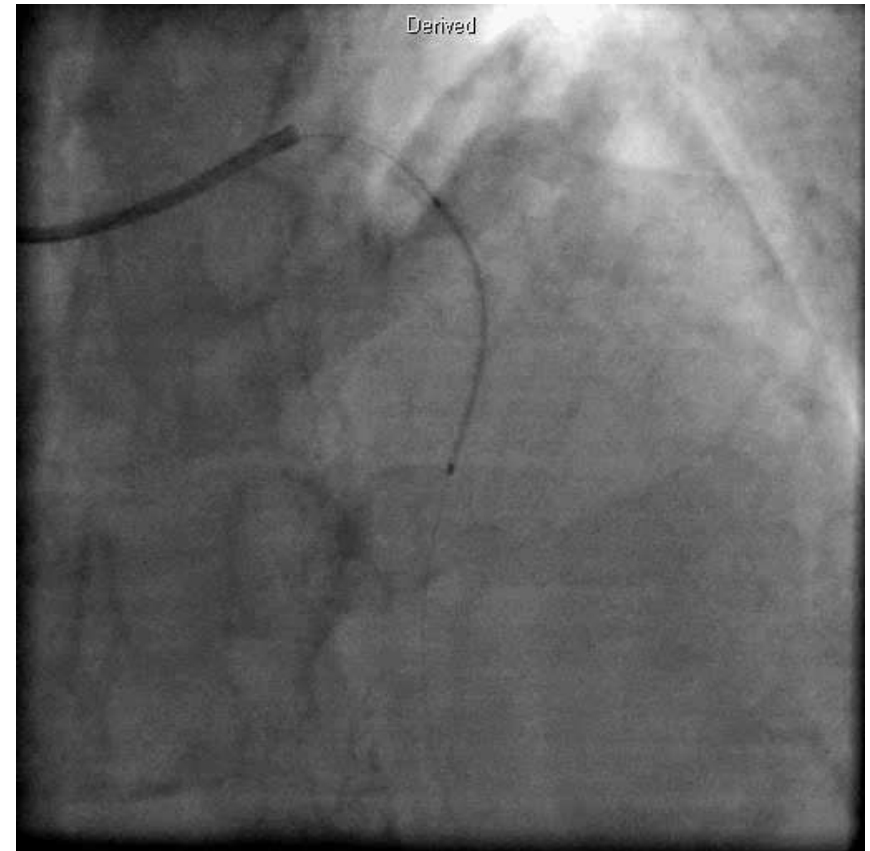
**Diffuse intermediate stenosis in p-to-
mRCA**



Planned 2nd-staged complete revasc. for non-culprit lesion via left snuffbox approach



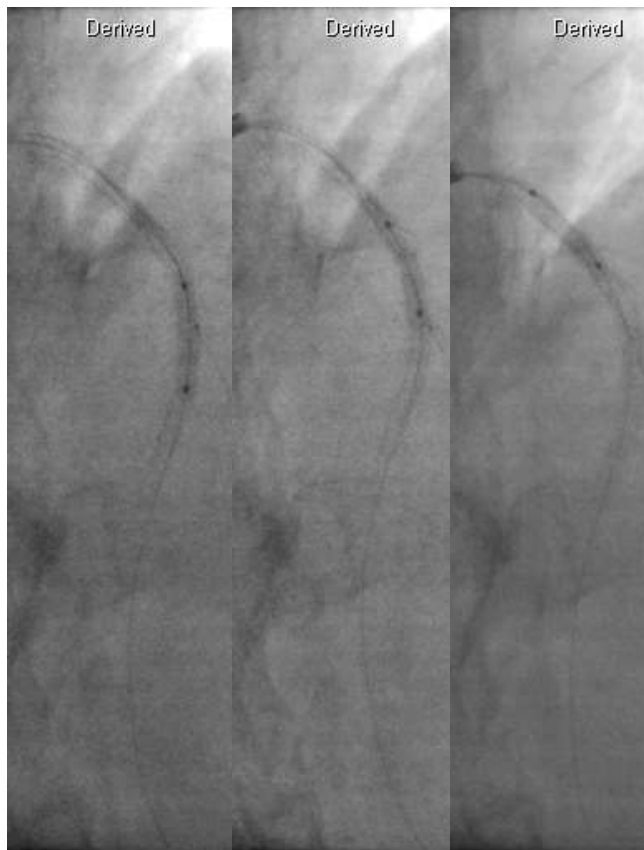
CAG after predilation with a 2.5x15mm compliance balloon



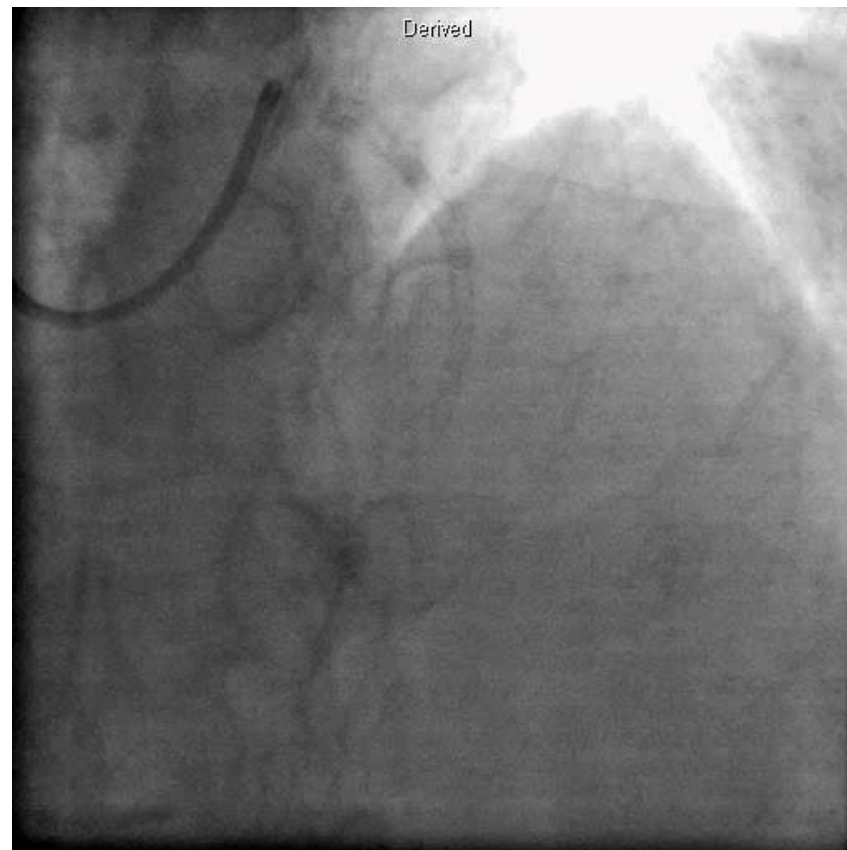
Xience Alpine 2.5x38mm implantation



Planned 2nd-staged complete revasc. for non-culprit lesion via left snuffbox approach



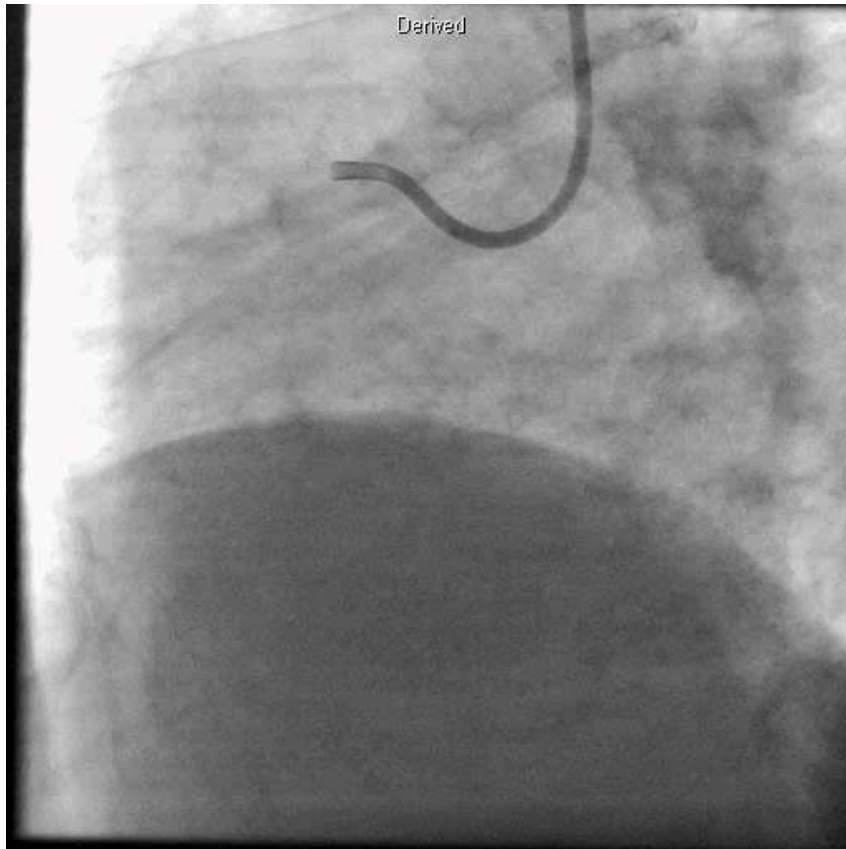
**Serial postdilation with 2.5x10mm
NC balloon @ 22 atm**



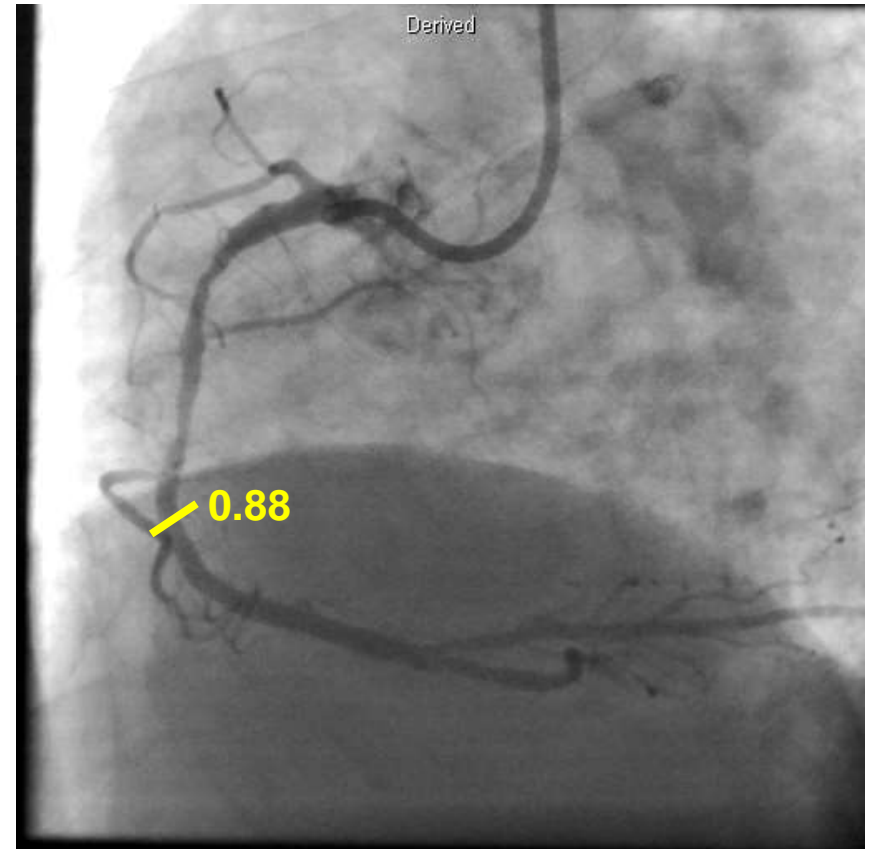
Final CAG on Lt.coronary



Planned 2nd-staged complete revasc. for non-culprit lesion via left snuffbox approach



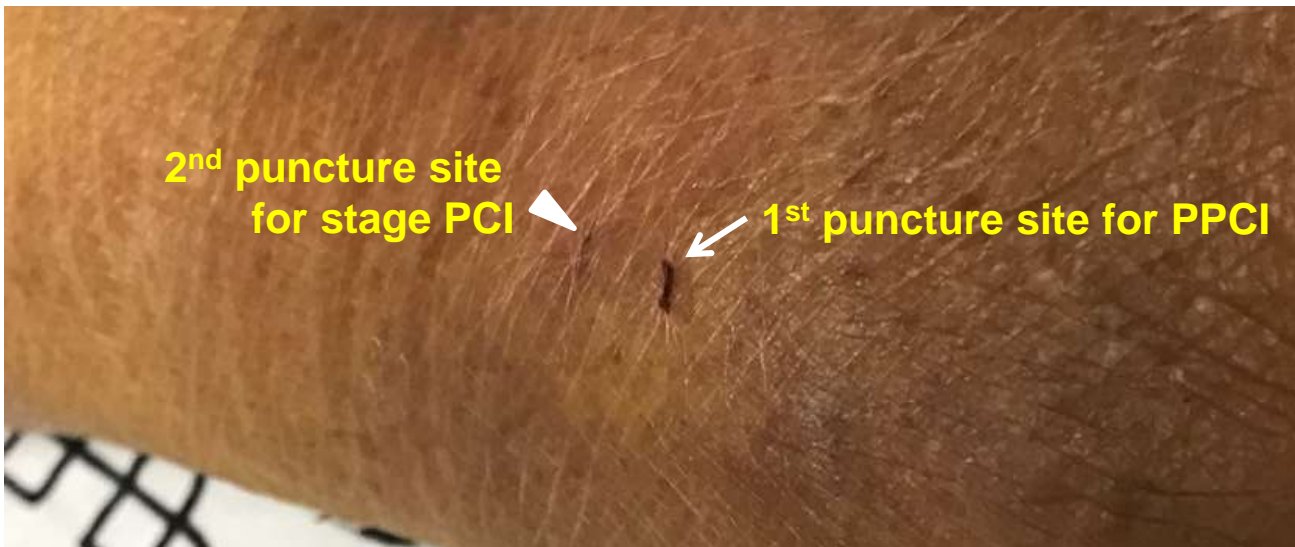
Diffuse intermediate stenosis in p-to-mRCA



FFR measurement



Hemostasis of snuffbox approach (compressive bandage for 3-hour)





Concern regarding snuffbox approach (#3 Performance of snuffbox PCI)



Success rate of PCI via left snuffbox approach: **99.2%** (119/120)

| | | | |
|--------------------------------|--------------------|------------------------|-------------------|
| Reason for PCI | n = 119 | imaging-guided PCI | 17 (14.3%) |
| - NSTEMI | 41 (34.5%) | OCT-guided PCI | 11 (9.3%) |
| - STEMI | 13 (10.9%) | IVUS-guided PCI | 6 (5.0%) |
| 6 Fr Sheath | 115 (96.6%) | Multivessel PCI | 15 (12.6%) |
| Treated vessel | n = 129 | Thrombus aspiration | 9 (7.6%) |
| - LM | 5 (3.9%) | Left guiding catheter | n = 95 |
| - LAD | 53 (41.1%) | - EBU type | 68 (71.6%) |
| - LCx | 34 (26.4%) | - Judkins | 22 (23.2%) |
| - RCA | 37 (28.7%) | - Amplatz | 5 (5.3%) |
| Stent implantation | 110 (92.4%) | Right guiding catheter | n = 31 |
| Case ≥ two stents implantation | 29 (24.4%) | - Amplatz | 22 (71.0%) |
| FFR-guidance | 7 (17.1%) | - Judkins | 9 (29.0%) |

Recannulation of Distal Radial Artery for Staged Procedure After Successful Primary Percutaneous Coronary Intervention

Yongcheol Kim, MD¹; Myung Ho Jeong, MD, PhD¹; Kirill Berezhnoi, MD^{2,3}; Sang Yeub Lee, MD, PhD^{4,5};
Min Chul Kim, MD, PhD¹; Doo Sun Sim, MD, PhD¹; Young Joon Hong, MD, PhD¹; Ju Han Kim, MD, PhD¹;
Youngkeun Ahn, MD, PhD¹

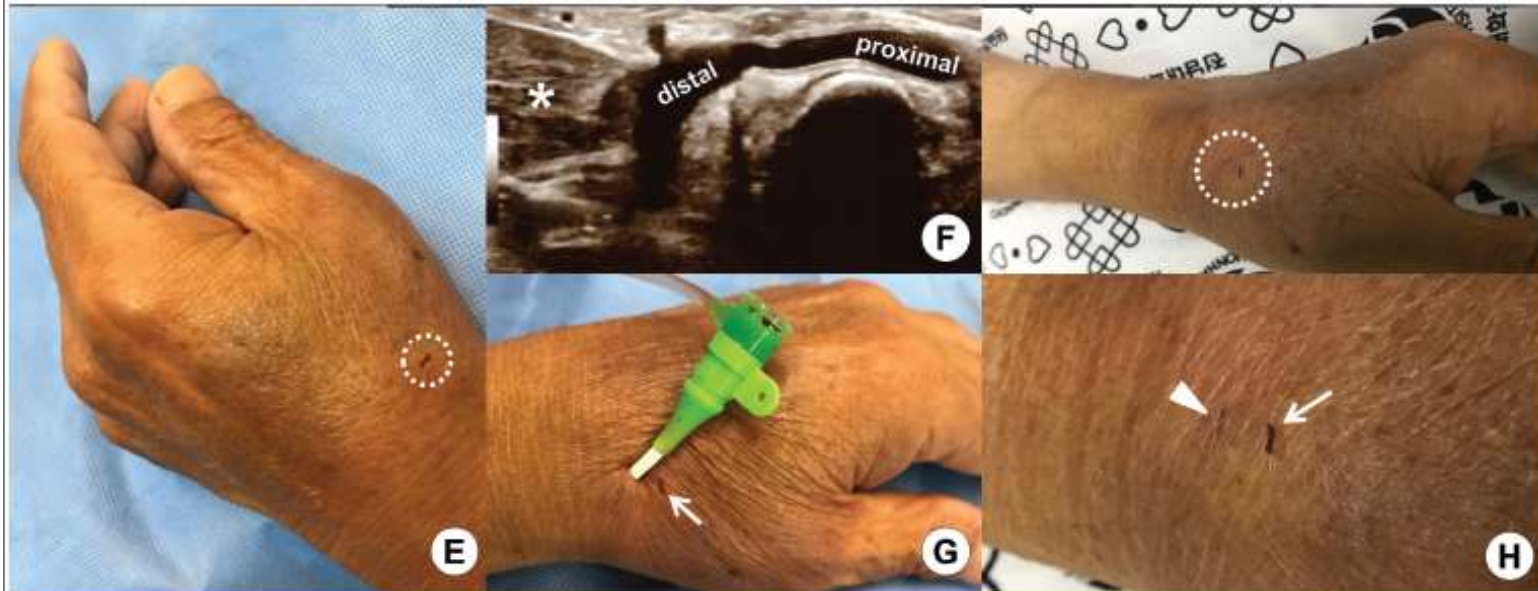


FIGURE 1. (continued) [E] No puncture-site complication after primary PCI via left distal radial artery approach (white circle). [F] Vascular sonography demonstrating patent left distal radial artery before staged FFR-guided PCI (asterisk: first dorsal interosseous muscle). [G] Inserted 6 Fr sheath via left snuffbox approach on the staged PCI (arrow: first puncture site for primary PCI). [H] Two puncture sites (white circle, upper panel) on the day after staged PCI, first puncture site for primary PCI (arrow, lower panel), and second puncture site for staged PCI (arrowhead, lower panel).

Thank you for your attention

