

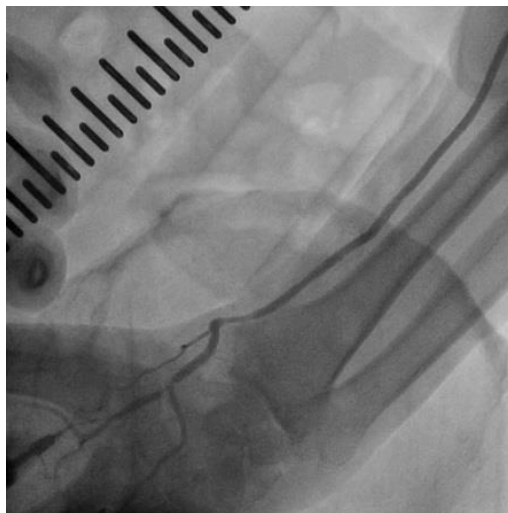
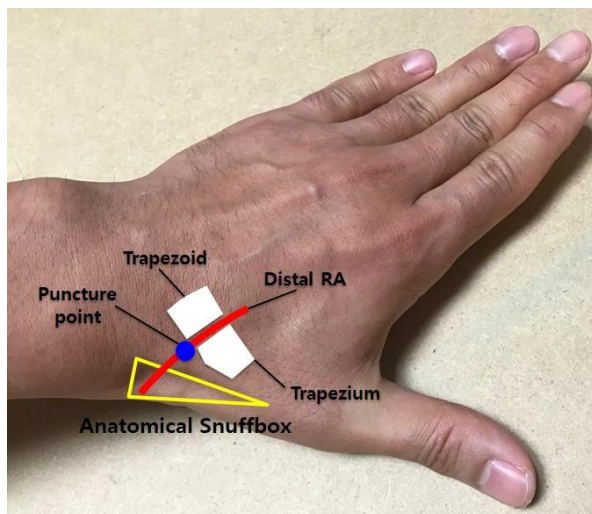


JCR 2018

Session XVIII: Distal Radial Artery Approach
Busan, Korea, 08 Dec 2018



Feasibility of PCI via left snuffbox approach



Yongcheol Kim

Chonnam National University Hospital, Gwangju, Korea



From the father of transradial intervention



EuroIntervention

Official Journal of EuroPCR and the European Association of Percutaneous Cardiovascular Interventions (EAPCI)



IMPACT FACTOR
2016 Journal Citation Reports @
Science Edition (Clarivate Analytics, 2017) **5.165**

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JUST ACCEPTED ARTICLE

Left distal transradial access in the anatomical snuffbox for coronary angiography (ldTRA) and interventions (ldTRI)

Published on 16 May 2017

1 comment | print article



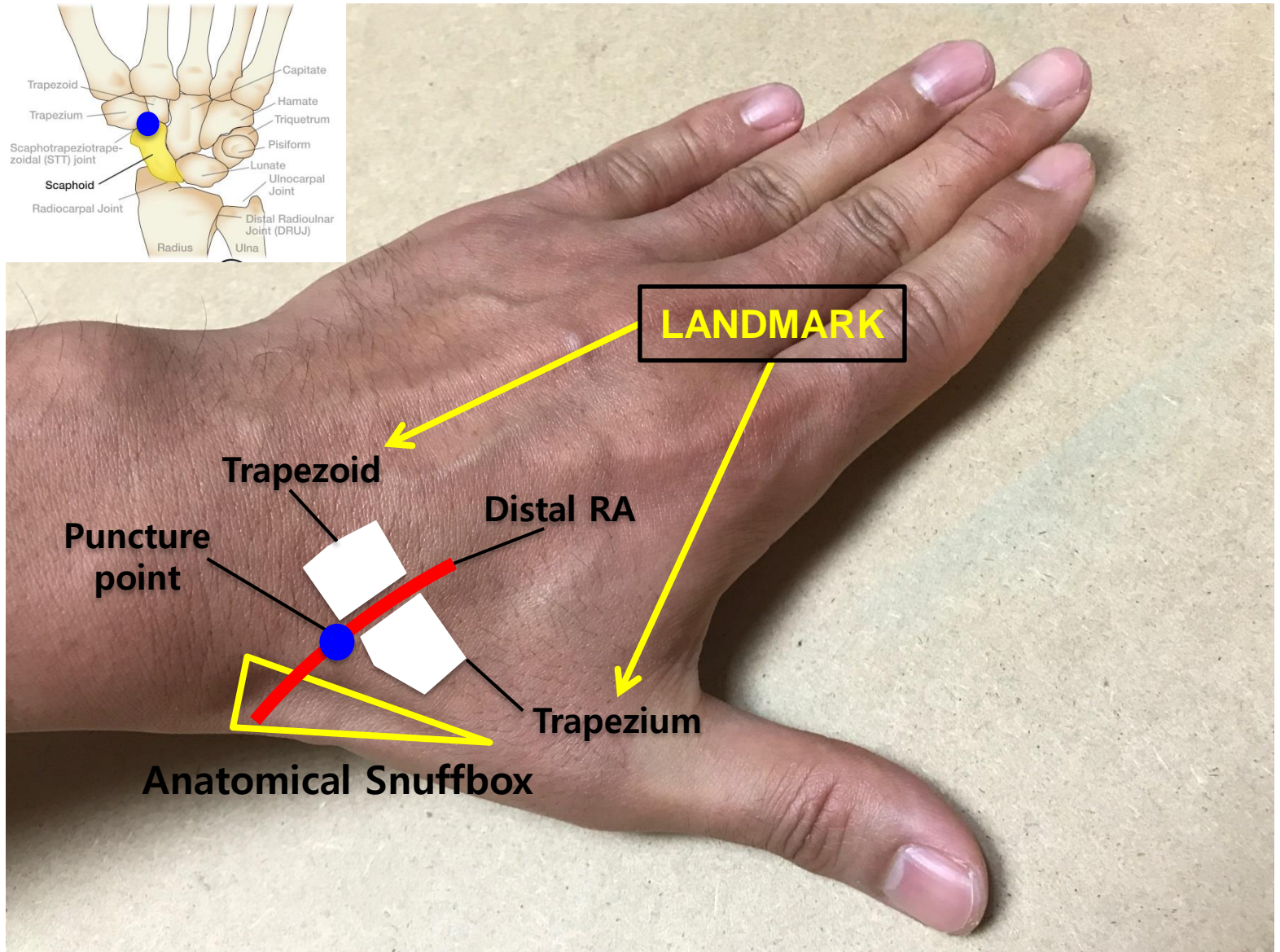
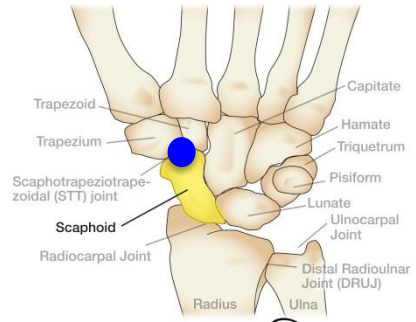
Ferdinand Kiemeneij*, MD, PhD

Department of Cardiology, Tergooi Blaricum, Blaricum, the Netherlands

Distal radial approach = Snuffbox approach



Where is the anatomical snuffbox?



Positioning for left snuffbox approach



Lt. hand placing on Rt.femoral area (not neutral position)



Lt. hand placing on Lt. femoral area (Neutral position)



Operator standing on the left side of the patient

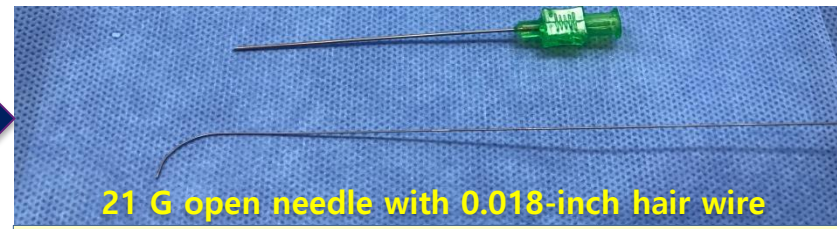
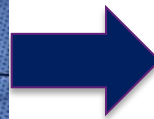
How to do snuffbox puncture



20 G needle-cannula assembly with 0.025-inch wire

Through-and-through technique
for posterior wall puncture

→ more painful due to the touch of periostium



21 G open needle with 0.018-inch hair wire

Seldinger technique
for anterior wall puncture

→ less painful due to no touch of periostium



Puncture with a 21-gauge open needle
(Seldinger technique)



The benefits of 0.018-inch hair wire



Distal radial artery tortuosity



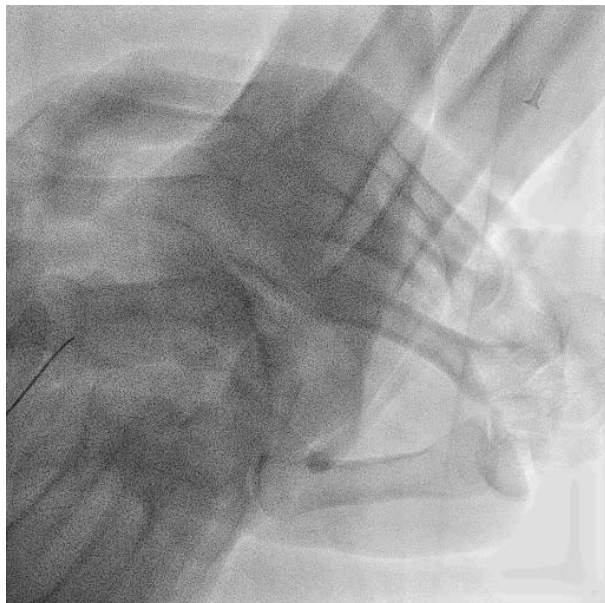
Distal radial artery spasm



Radial artery tortuosity



Derived





Concern regarding snuffbox approach (#1 success rate of snuffbox puncture)



Study	Location	Patients	Success rate (puncture)	Success rate (cannulation)
Kiemeneij (Eurointervention 2018)	Netherlands	70	94%	89%
Soydan et al. (Anatol J Cardiol 2018)	Turkey	54	100%	100%
Valsecchi et al. (J Invasive Cardiol 2018)	Italy	52	94%	90%
WSCH (Eurointervention 2018)	Korea	200	95%	95%
CNUH (Korean Circ J 2018)	Korea	150	93%	88%
Overall		526	95.1% (n=500)	92.3% (n=486)












Concern regarding snuffbox approach (#1 success rate of snuffbox puncture)

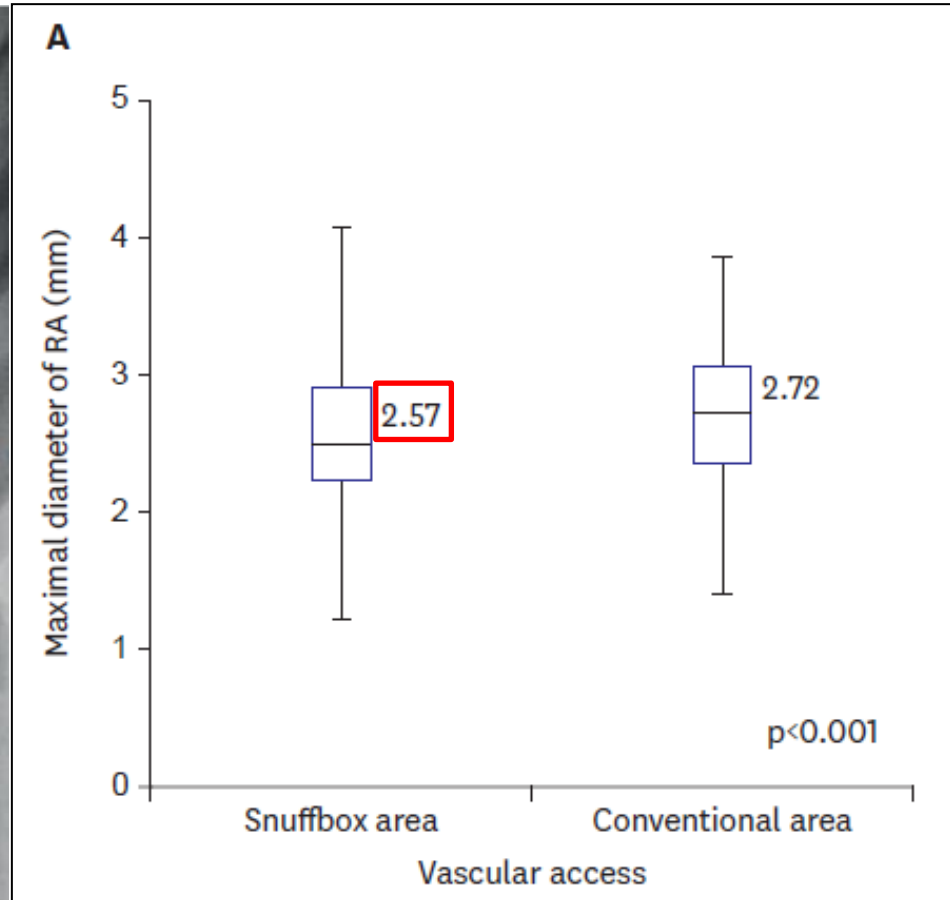
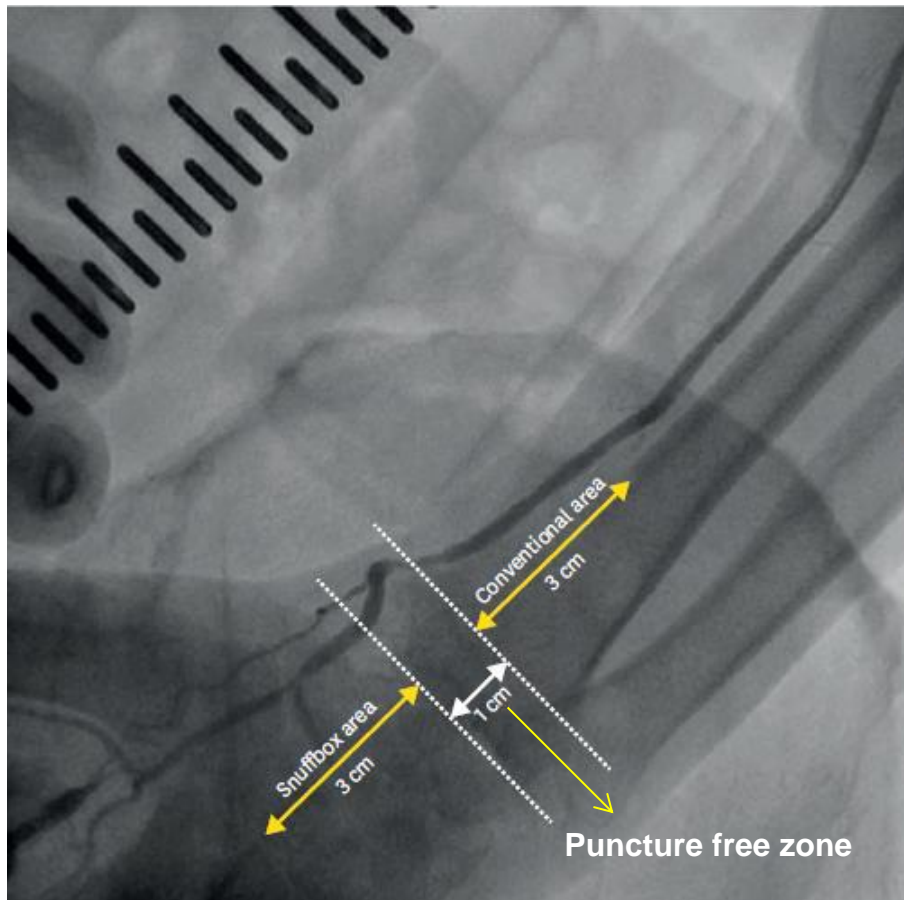


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WSCH (Eurointervention 2018)	Korea	200	95%	95%
CNUH (~ 30 Nov 2018)	Korea	416	96%	93%
Overall		792	96.0% (n=760)	93.4% (n=740)









Snuffbox approach is a feasible option than you thought!!!

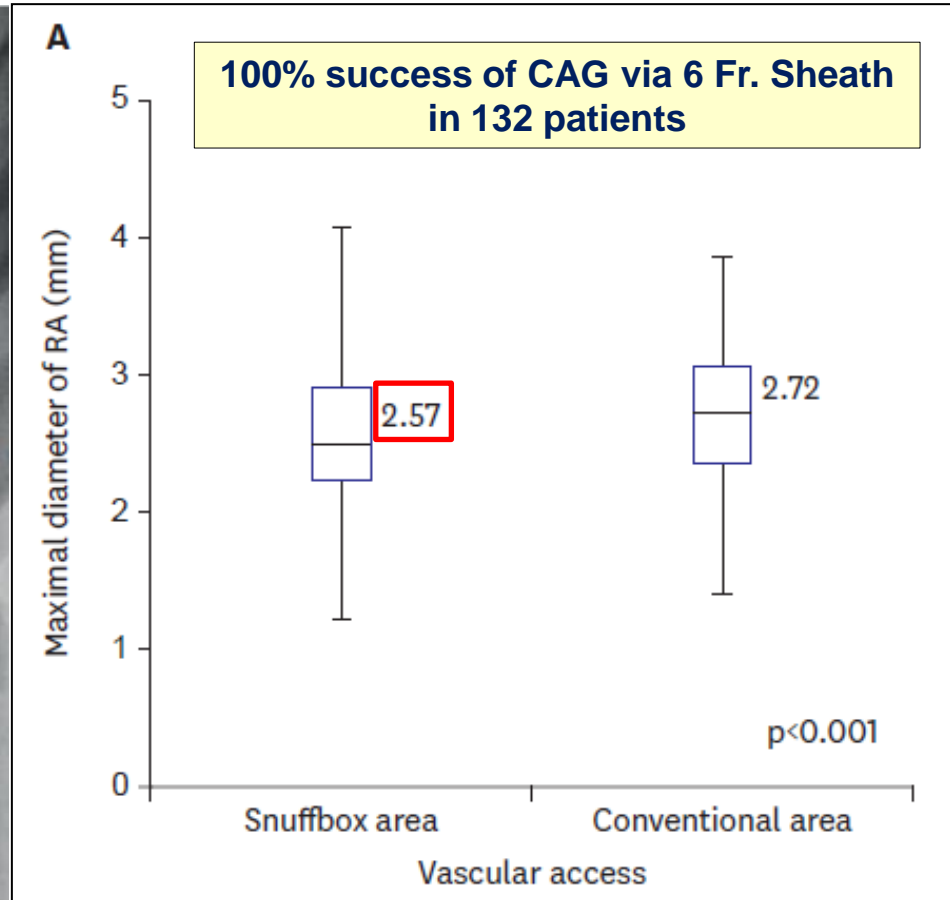
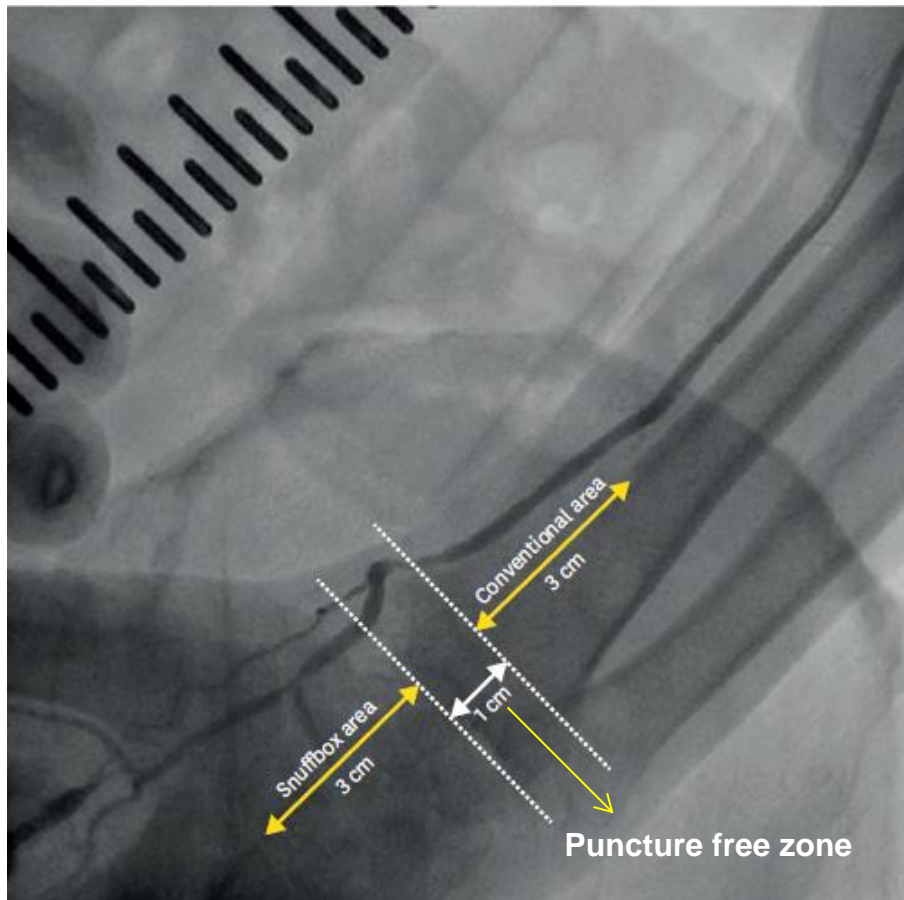
Feasibility of Coronary Angiography and Percutaneous Coronary Intervention via Left Snuffbox Approach

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



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

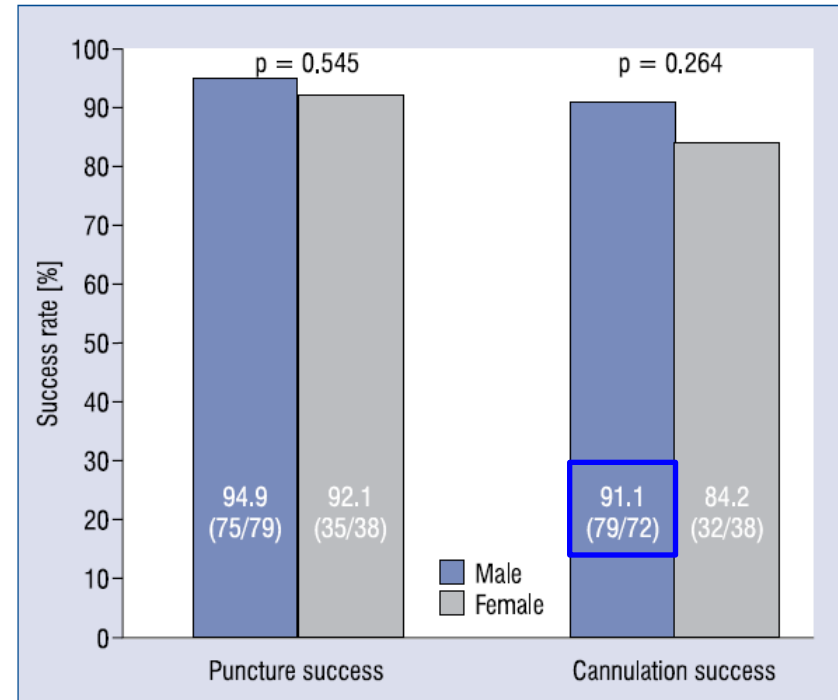
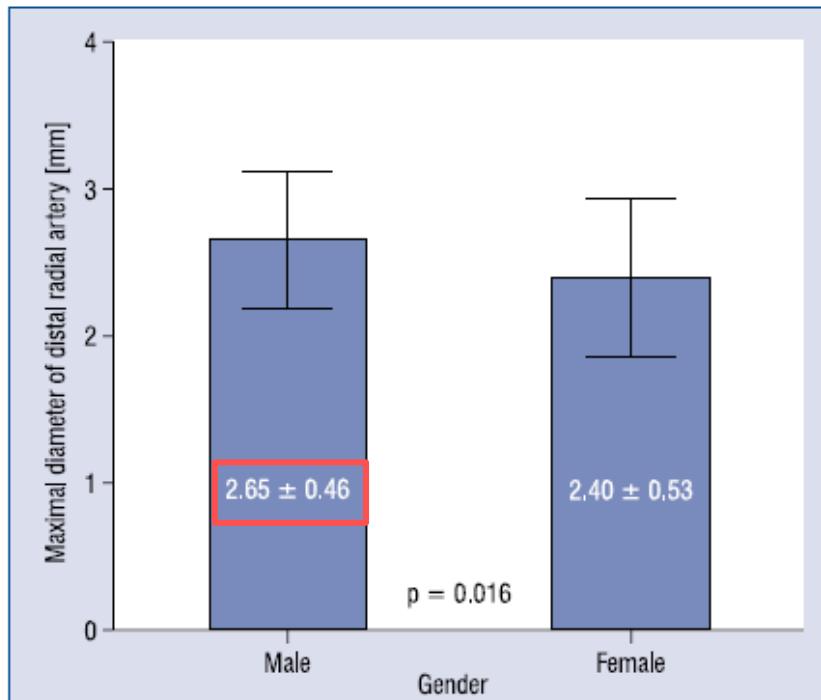
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Gender differences in the distal radial artery diameter for the snuffbox approach

Yongcheol Kim, Youngkeun Ahn, Min Chul Kim, Doo Sun Sim,
 Young Joon Hong, Ju Han Kim, Myung Ho Jeong

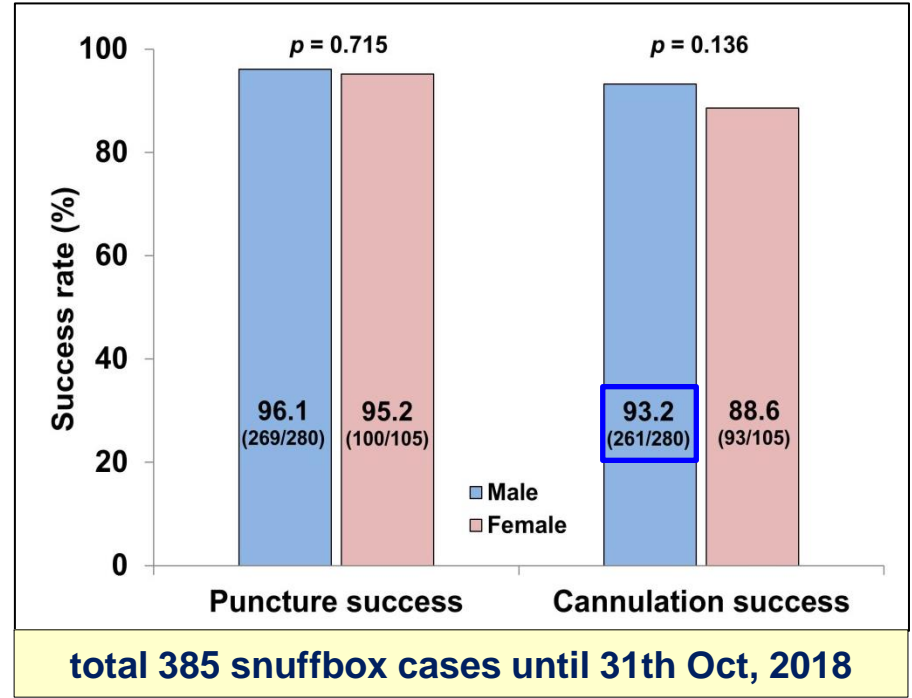
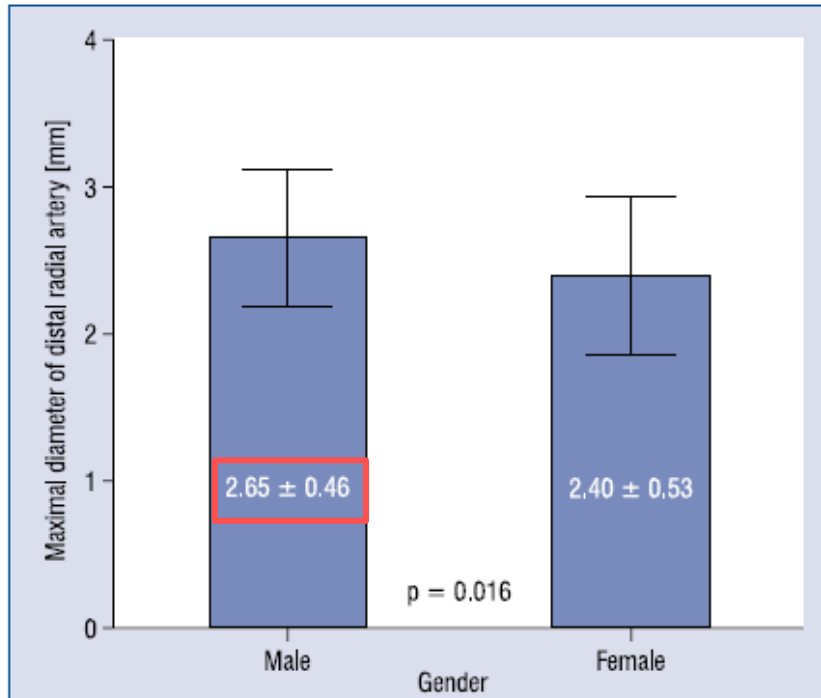
Department of Cardiology, Chonnam National University Hospital, Gwangju, Republic of Korea



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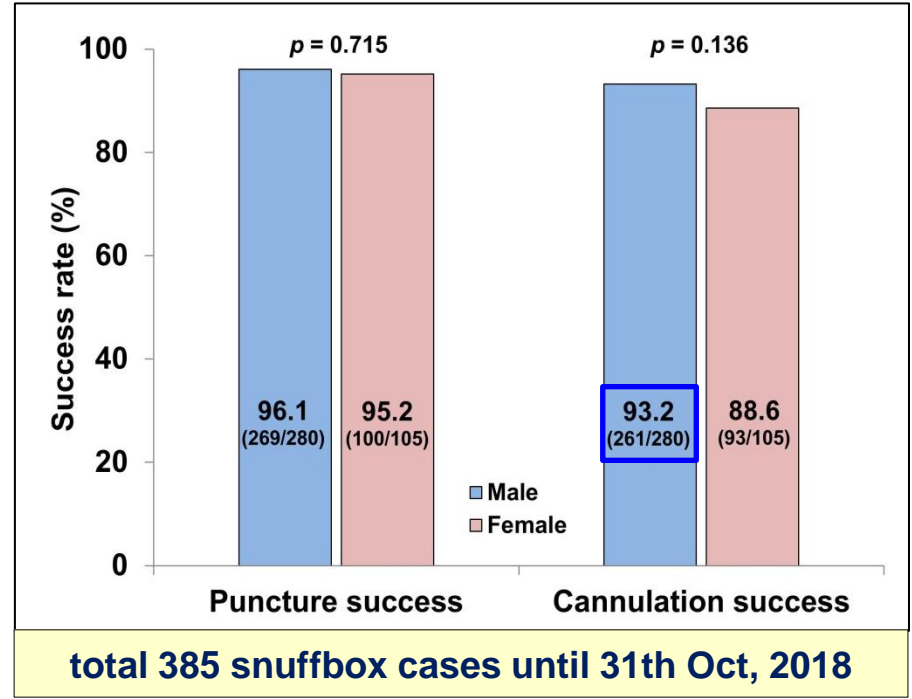
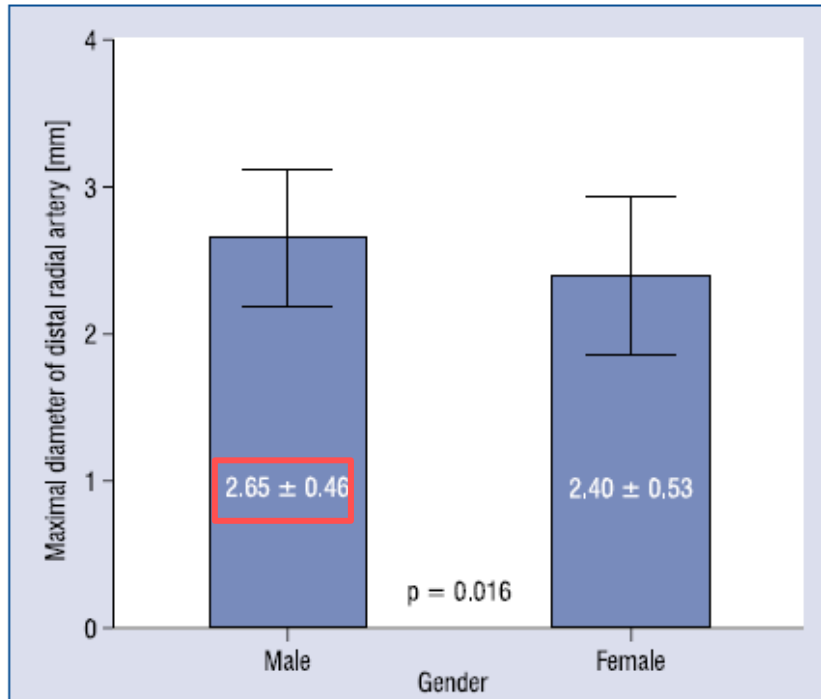
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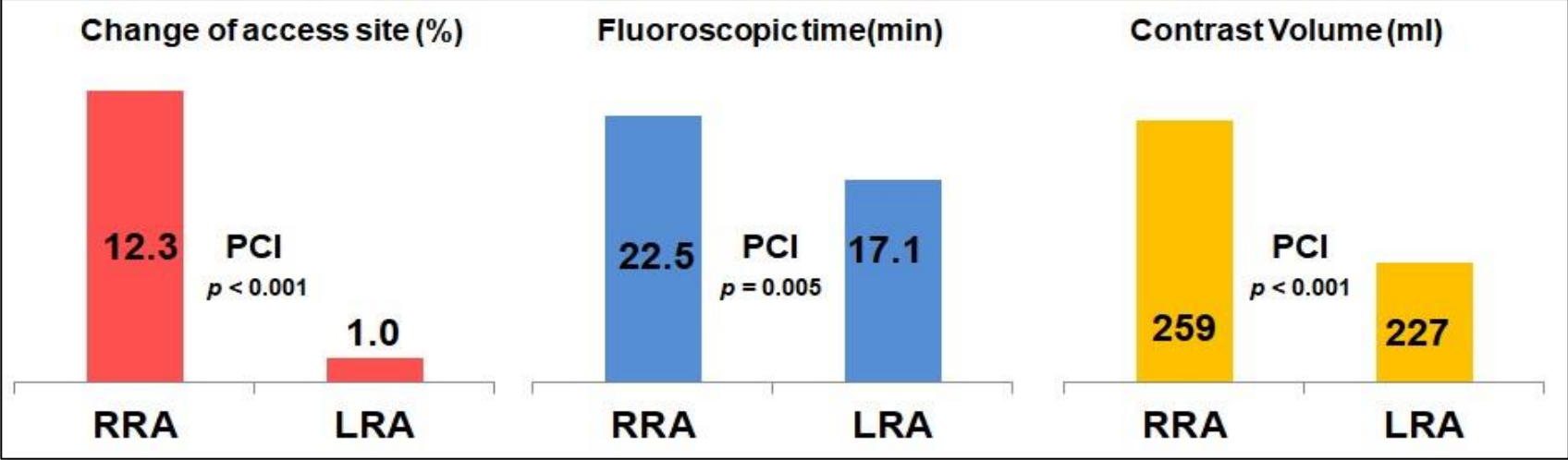
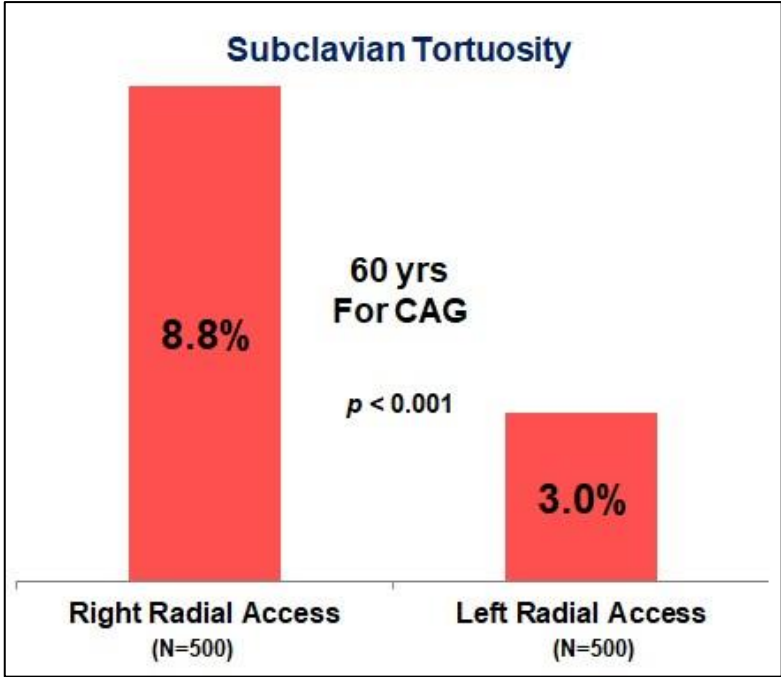
Department of Cardiology, Chonnam National University Hospital, Gwangju, Republic of Korea



Male patients would be more suited to an inexperienced “snuffboxer” when the left snuffbox approach is planned.



Why left snuffbox approach, not right?





PHILIPS

15

소화기



Don't have to bend your body (Position as same as Rt.radial approach)





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

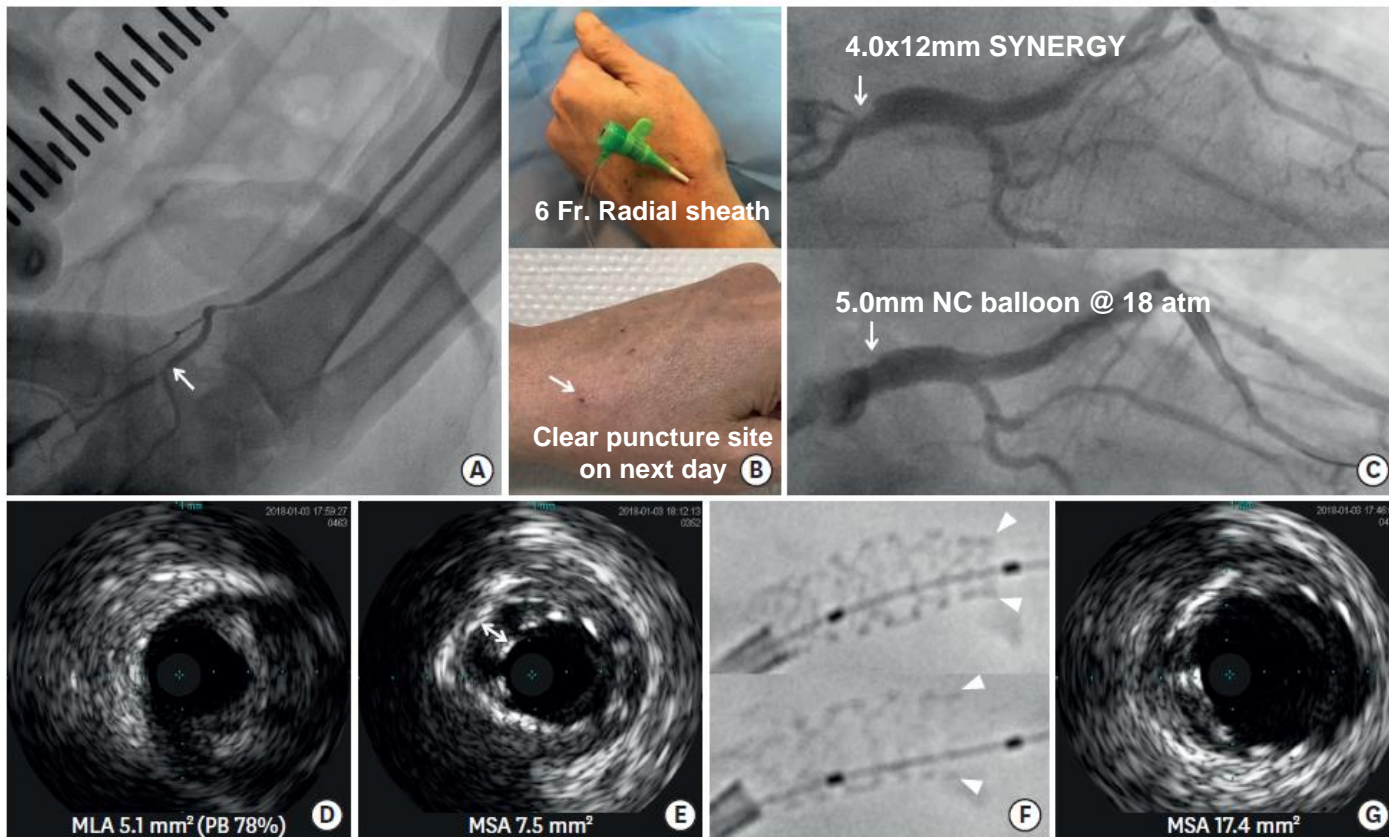


Success rate of PCI via left snuffbox approach: **99.2%** (119/120)

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%)

Intravascular Ultrasound-Guided Percutaneous Coronary Intervention with Drug-eluting Stent for Unprotected Left Main Disease via Left Snuffbox Approach

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



Complete revascularization via left snuffbox approach in a nonagenarian patient with acute myocardial infarction

Kirill Bereznoi^{1,2}, Leonid Kokov^{2,3}, Aleksandr Vanyukov¹, Yongcheol Kim⁴

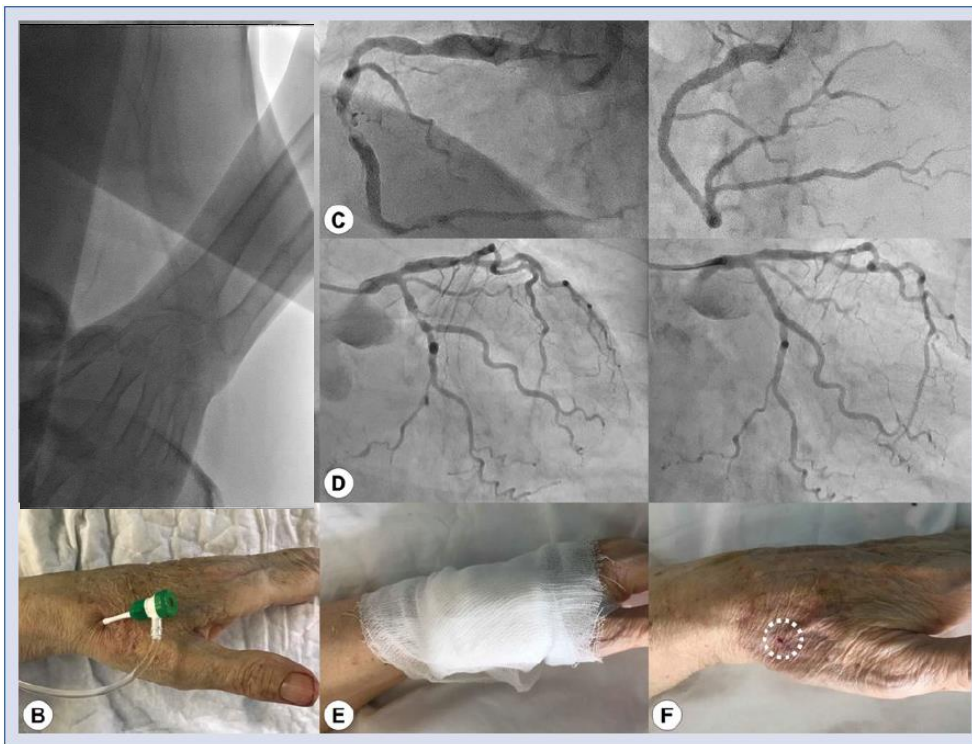
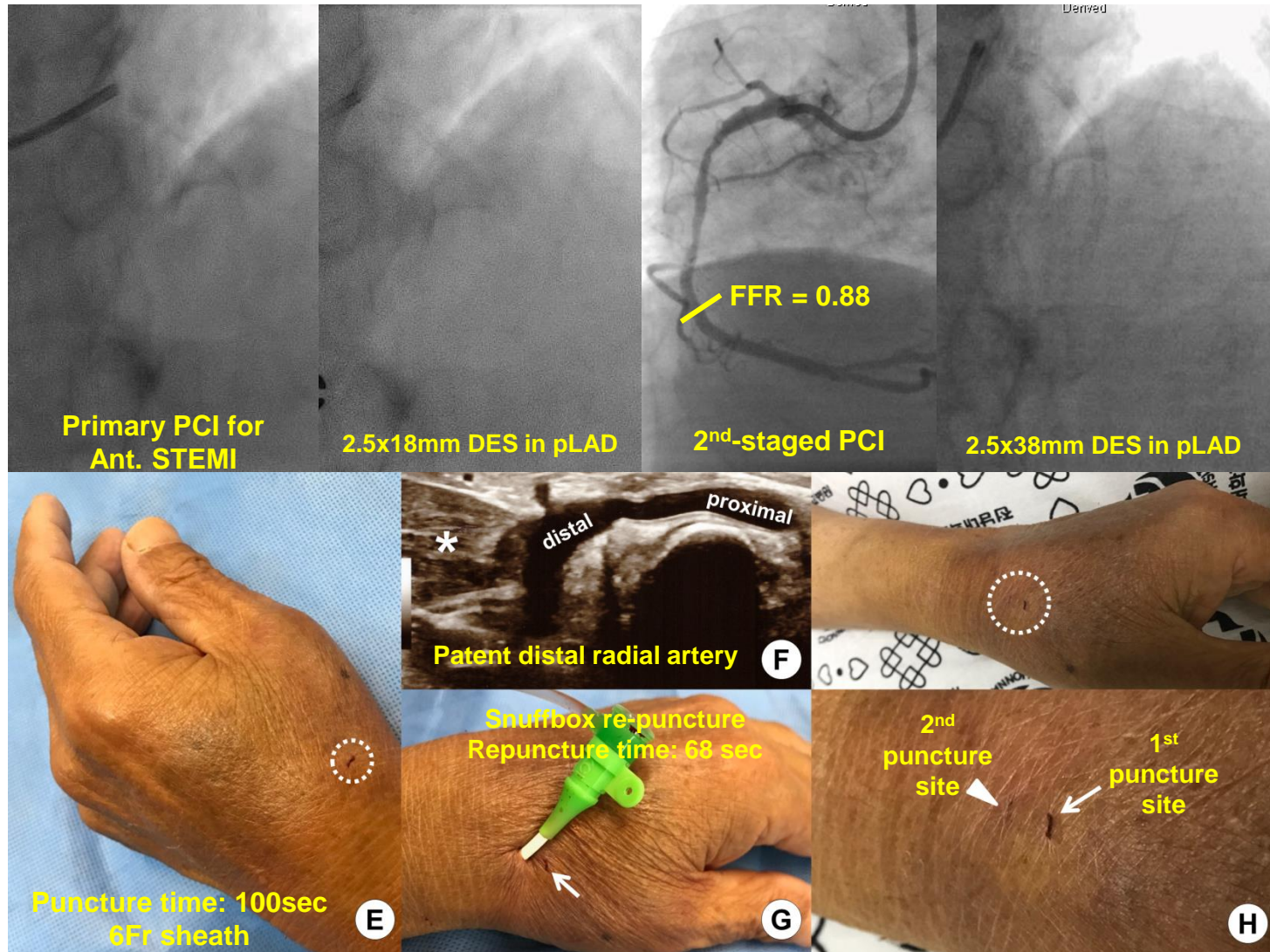
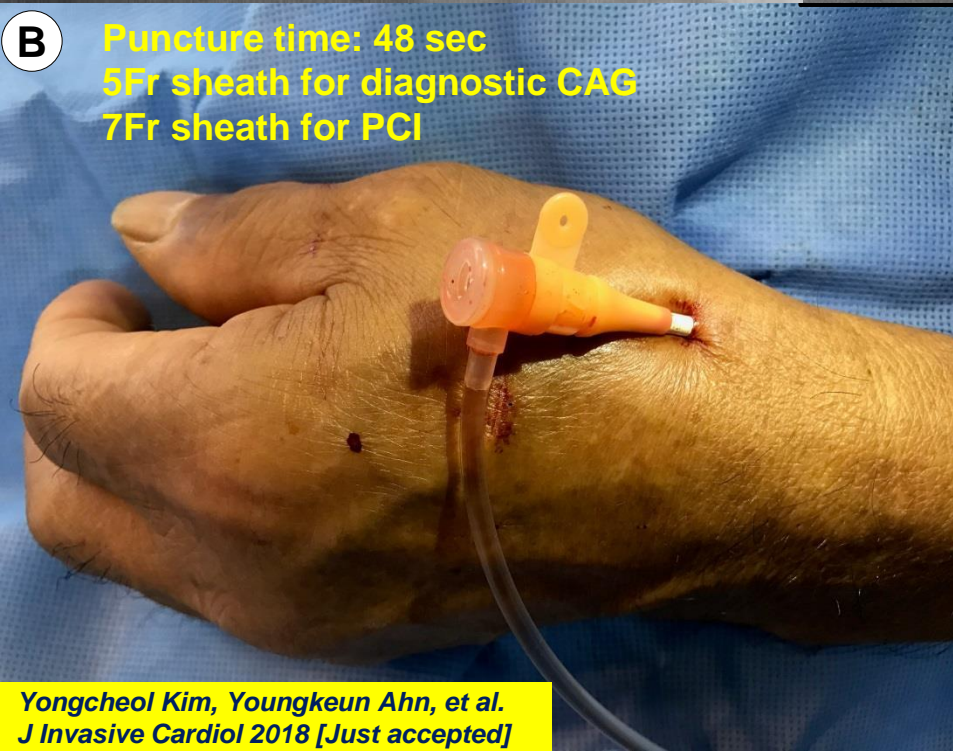
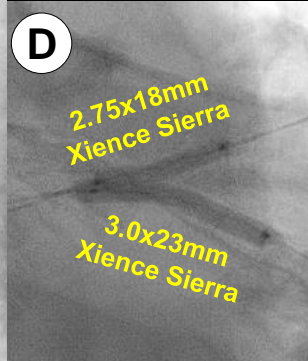
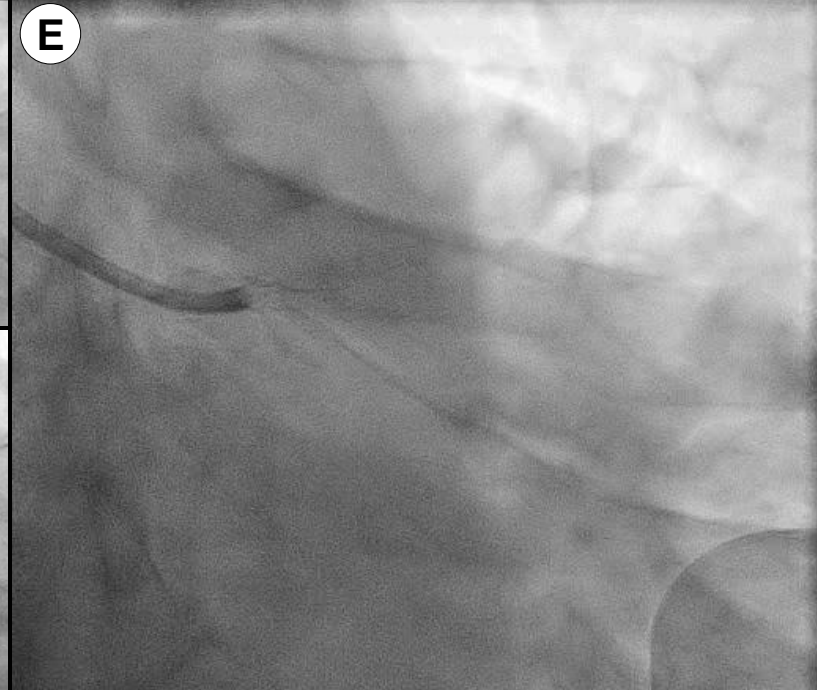
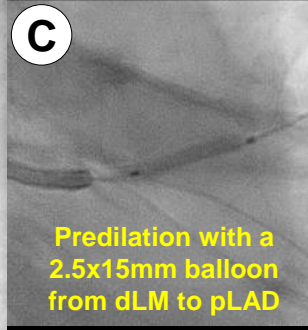


Figure 1. A. Peripheral angiography of left hand demonstrating successful puncture of the left distal radial artery (arrow: puncture site of left snuffbox approach); B. Inserted 6 Fr sheath via left snuffbox approach; C. Pre- (left) and post-interventional (right) coronary angiography in the right coronary artery; D. Pre- (left) and post-interventional (right) coronary angiography in the left circumflex artery; E. Hemostasis by manual compressive bandage with gauze; F. No vascular complication of puncture site the following day (white circle).

Regarding complete revascularization in patients with acute myocardial infarction, the feasibility of the distal radial artery approach, called snuffbox approach, has not been known well [Kim et al., Korean Circ J. 2018; 48: e118]. Furthermore, percutaneous coronary intervention (PCI) via the right conventional radial approach for very old patients is sometimes challenging due to a difficulty of catheter manipulation by severe subclavian tortuosity leading to crossover to femoral access, even though the transradial approach significantly reduces vascular complication in elderly patients. This case highlights the feasibility of multivessel PCI via the left snuffbox approach in a very old patient with acute myocardial infarction.

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





Snuffbox approach hemostasis

Compressive bandage method



Hemostasis by PreludeSYNC™ DISTAL



Regarding vascular complication, forearm swelling with bruising, not requiring surgery or transfusion, occurred in 2 (1.7%) cases

My personal opinion regarding snuffbox approach

- **Snuffbox puncture is not difficult than you thought**
- **PCI performance via left snuffbox approach is as same as conventional Rt. radial approach (maybe better)**
- **Left snuffbox approach would be beneficial for the selected patients, such as old age, high bleeding risk, ESRD or CKD, and CABG**
- **Further large, prospective, multicenter, randomized study regarding comparison with the conventional radial approach should be needed**

Are you ready to become a “Snuffboxer” ??

