REC Interv Cardiol. 2025;7(4):267-268
https://doi.org/10.24875/RECICE.M25000535

Debate: Does the distal radial approach offer added value over the conventional radial approach? No, it does not

A debate: Abordaje radial distal. ¿Aporta valor adicional respecto al abordaje radial convencional? No

José Ramón Rumoroso Cuevas*

Unidad de Cardiología Intervencionista, Servicio de Cardiología, Hospital Universitario Galdakao, Galdakao, Vizcaya, España

SEE RELATED CONTENT:
https://doi.org/10.24875/RECICE.M25000534

Question: Are there anatomical reasons to propose distal radial access over conventional radial access?

Answer: The answer is yes. The hand has 2 arterial arches: a superficial arch, formed by the ulnar artery and the distal radial artery under discussion here, and a deep arch, formed by the radial and ulnar arteries. It cannot be denied that access via superficial radial artery is useful due to its location in the anatomic snuffbox, over bones such as the scaphoid and trapezium, which make it easily compressible. This results in a 49% lower hemorrhage rate after use and a 49% lower rate of thrombosis[1] compared with conventional radial access. Furthermore, in the presence of a superficial radial artery occlusion, either the radial or ulnar artery could later be used as an alternative access site.

However, in my opinion, this access is more difficult to perform, with a longer learning curve and a higher puncture failure rate, which leads to a greater number of cases in which conversion to a different type of access (cross-over) is necessary. On the other hand, conventional radial access is available in the 2 hands, and both ulnar arteries are equally feasible for vascular access, with less tortuosity.

Q.: What evidence exists in favor of distal radial access?

A.: The meta-analysis conducted by the University of Kentucky working group[2] with data from 18 randomized clinical trials with 8205 patients found a significantly lower rate of radial artery occlusion ($P < .001$) and a significantly shorter hemostasis time ($P < .001$). Although these figures are statistically significant, the rate of radial artery occlusion with conventional access ranges from 4% to 10%, compared with 0.3% to 2.8% with distal access.[2] When best clinical practices are implemented with conventional access, such as controlled non-occlusive hemostasis, the occlusion rate is 0.91%.[3] These are very low rates, closer to those of our routine clinical practice, which reduces the relevance of that theoretical benefit.

Q.: What specific complications can be associated with this vascular access?

A.: Performing distal radial access is more complex and challenging, likely because we initially learned conventional radial access, and any change feels less comfortable. The study results show several important points:

- It takes more time to cannulate the artery, puncture duration is longer and more puncture attempts are nedded.[4]
- The learning curve is longer (> 200 patients to achieve > 94% success rate).[5]
- Cross-over is 3 times more common, requiring an alternative access site to successfully complete the procedure.[4] Although there are no serious complications, delays occur in the management of patients in interventional cardiology units.

Q.: Are there situations in which this access might be particularly indicated?

A.: Yes, indeed. Whenever we need to preserve the radial artery patency, the lower risk of occlusion should be considered—for example, in patients requiring an arteriovenous fistula for hemodialysis or in cases where the radial artery may be needed as an arterial graft for coronary artery bypass graft surgery. On the other hand, in patients with prior bleeding complications associated with conventional vascular access, or in those with severe obesity in whom effective compression of the radial artery becomes more difficult, distal radial access may be considered because it is more easily compressible and has lower hemorrhage rates.[1]

* **Corresponding author.**
E-mail address: rumo@secardiologia.es (J.R. Rumoroso Cuevas).
𝕏 @RumoJose

Online 14 October 2025.
Full English text available from: https://www.recintervcardiol.org/en.

FUNDING

None declared.

STATEMENT ON THE USE OF ARTIFICIAL INTELLIGENCE

None used.

CONFLICTS OF INTERESTS

None declared.

REFERENCES

1. Corcos T. Distal radial access for coronary angiography and percutaneous coronary intervention: A state-of-the-art review. *Catheter Cardiovasc Interv.* 2019;93:639-644.
2. Mufarrih SH, Haider S, Qureshi NQ, et al. Distal Versus Proximal Radial Arterial Access for Percutaneous Coronary Angiography and Intervention: Updated Meta-Analysis of Randomized Controlled Trials. *Am J Cardiol.* 2024;218:34-42.
3. Aminian A, Sgueglia GA, Wiemer M, et al. Distal Versus Conventional Radial Access for Coronary Angiography and Intervention: The DISCO RADIAL Trial. *JACC Cardiovasc Interv.* 2022;15:1191-1201.
4. Ferrante G, Condello F, Rao SV, et al. Distal vs Conventional Radial Access for Coronary Angiography and/or Intervention: A Meta-Analysis of Randomized Trials. *JACC Cardiovasc Interv.* 2022;15:2297-2311.
5. Roh JW, Kim Y, Lee OH, et al. The learning curve of the distal radial access for coronary intervention. *Sci Rep.* 2021;11:13217.