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Letter to the Editor

Letter to the editor regarding "Undesirable complication after transradial coronary angiography: A case report"

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Dear Editor,

We read the article by Altınbaş et al. [1] titled "Undesirable complication after transradial coronary angiography: A case report" published in Issue 1/2024 of the journal with great interest. We would like to draw attention to this rare and important issue in cardiology practice.

In recent years, in line with the developments in catheter technology and the clinical experience gained, transradial access (TRA) for coronary angiography has become a frequently used technique. However, this technique sometimes has serious complications. It is necessary to be very careful in this regard. Complications reported in the literature regarding transradial coronary angiography include arterial dissection, spasm, failed radial access, hematoma, radial artery perforation, radial artery occlusion, pseudoaneurysm, arteriovenous fistula, carpal tunnel syndrome, local neuropathy (thumb numbness), compartment syndrome access, bone base inflammation/necrosis, thromboembolization, hand ischemia, finger amputation, and stroke [1-3]. A single-center prospective randomized study found that distal transradial access (dTRA) is a less preferred technique than conventional transradial access (cTRA) during routine coronary procedures due to the higher incidence of arterial spasm and the need for access bypass [2]. The majority of local complications following dTRA were clinically minor complications. Individuals with diabetes were particularly susceptible to dTRA-related complications [2]. The main drawback limiting vascular access was vasospasm and tortuosity in the distal part of the radial artery [2]. If advancing to the forearm portion of the radial artery (RA) with a standard wire fails, a 0.01400 coronary wire can be used. Therefore, routine use of ultrasound guidance may increase the likelihood of successful arterial punctures and first passes and reduce the number of puncture attempts. Factors contributing to failure of radial artery access are low forearm RA pulse volume, low BSA, and higher BMI. Some of these factors may cause difficulties in localizing and puncturing the artery or may reflect the inappropriately small size of the RA [2]. As a result, in order to avoid complications of transradial coronary angiography, it is necessary to perform the Allen test before the procedure, use hydrophilic introducer sheaths and smaller sheath sizes, apply nitroglycerin, heparin, diltiazem or verapamil during the procedure, and avoid reused materials. Again, careful patient selection and, if necessary, access to the radial artery under ultrasound guidance may help minimize radial access complications.

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REFERENCES

1. Altinbas O, Isik M. Undesirable complication after transradial coronary angiography: a case report. Turk J Vasc Surg. 2024;33:51-4.
2. Koziński Ł, Orzałkiewicz Z, Dąbrowska-Kugacka A. Feasibility and safety of the routine distal transradial approach in the anatomical snuffbox for coronary procedures: the ANTARES randomized trial. J Clin Med. 2023;12:7608.
3. Alur İ, Çıtışlı V, Pekel G, Güneş T, Tanrısever GY, Önem G. A rare complication after conventional coronary angiography: left homonymous hemianopia . Abant Med J. 2015;4:158-60.