

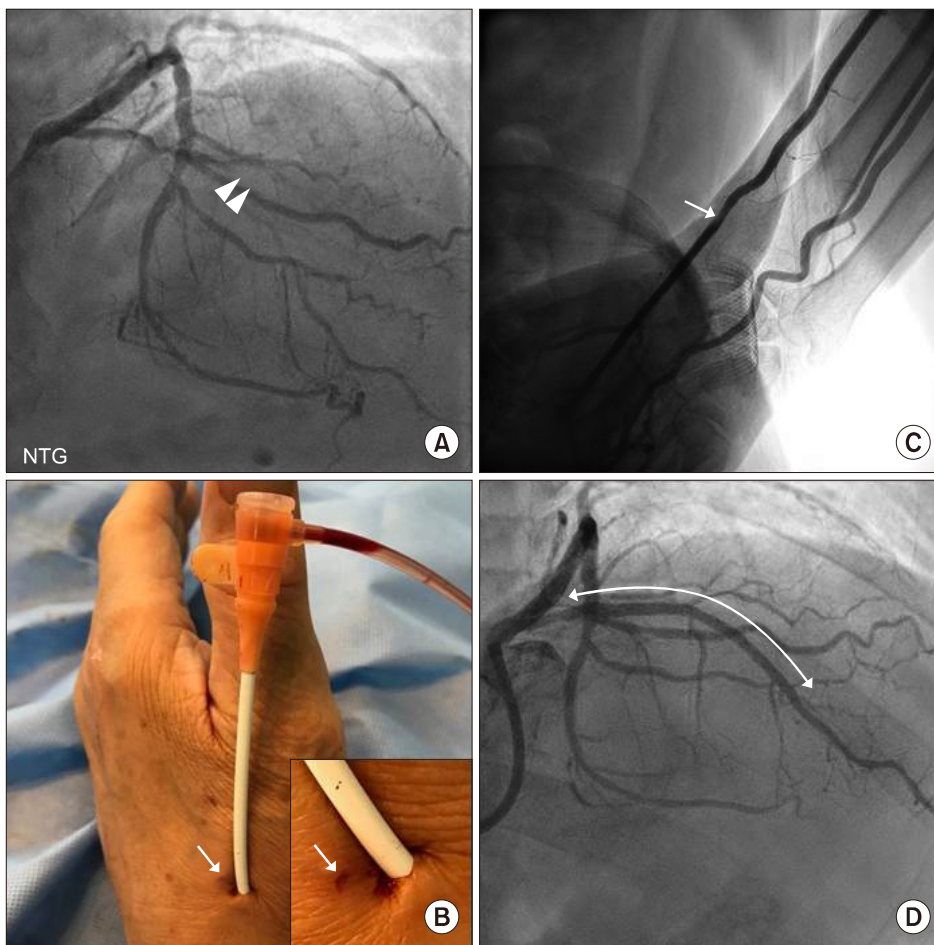
## Snuffbox Approach for Coronary Chronic Total Occlusion Intervention Using a 7-French Sheath

Yongcheol Kim, Dae Yong Hyun, Kyung Hoon Cho, Min Chul Kim, Doo Sun Sim, Young Joon Hong, Ju Han Kim, Youngkeun Ahn, and Myung Ho Jeong\*

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

A 69-year-old man was scheduled for coronary angiography (CAG) due to effort angina. CAG was performed via the left snuffbox approach using a 5-French (Fr) sheath (Radifocus® Introducer II; Terumo Corporation, Tokyo, Japan) and demonstrated a chronic total occlusion (CTO), 0 point of Japanese CTO score, in the left anterior descending artery (LAD) (Fig. 1A). The following day, gated myocardial

single-photon emission computed tomography imaging demonstrated a significant reversible perfusion defect at the left ventricular apex; thus, percutaneous coronary intervention (PCI) was scheduled for the treatment of the CTO. Since the left distal radial artery was patent and the wound of the previous puncture site was clear, the same approach was used with a repuncture of the left distal radial



**FIG. 1.** (A) Diagnostic CAG demonstrating CTO in the LAD artery (arrowheads, CTO segment). (B) A 7-Fr. sheath inserted via the left snuffbox approach (arrow, previous puncture site for diagnostic CAG). (C) Peripheral angiography of the left arm demonstrating no radial artery spasm after the insertion of the 7-Fr. sheath (arrow, tip of the 7-Fr. sheath). (D) Post-percutaneous coronary intervention CAG demonstrating successful stenting of the LAD lesion (both arrowheads). CAG: coronary angiography, CTO: chronic total occlusion, Fr: French, LAD: left anterior descending artery.

**Corresponding Author:**

Myung Ho Jeong  
Department of Cardiology, Chonnam National University Hospital, 42 Jaebong-ro, Dong-gu, Gwangju 61469, Korea  
Tel: +82-62-220-6243, Fax: +82-62-228-7174, E-mail: myungho@chollian.net

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artery, followed by the insertion of a 7-Fr. sheath (Fig. 1B). Peripheral angiography demonstrated no radial artery spasm after the insertion of the 7-Fr. sheath (Fig. 1C). Developed ipsilateral bridge collaterals at the CTO site led to antegrade approach for the CTO procedure without contralateral injection. Successful CTO intervention was achieved using a 2.75×19 mm and 2.5×40 mm bioabsorbable polymer sirolimus-eluting stent (BioMime, Life Sciences Pvt. Ltd., Vapi, India) after successful passage of a Gaia second guidewire (Asahi Intecc, Nagoya, Japan) with a microcatheter (Finecross™; Terumo, Tokyo, Japan) to the distal LAD using an extra backup type guiding catheter (RunWay™; Boston Scientific, Natick, MA, USA) (Fig. 1D). The patient was subsequently discharged without puncture-site bleeding complications after 6 hours of hemostasis using the compressive bandage method.

A coronary CTO intervention is the most challenging part of PCI field. Therefore, the feasibility of snuffbox CTO-PCI remain questionable as there are limited data regarding snuffbox PCI for complex lesions using a 7-Fr. sheath.<sup>1,2</sup> With regard to repuncture of the distal radial artery, only 1 case report has been published.<sup>3</sup> According to authors's experience, repuncture is not a difficult procedure if the patient has adequate pulsation of the distal radial artery. However, prospective studies are needed to confirm the safety and efficacy regarding repuncture of the distal radial artery. In terms of feasibility of 7-Fr. sheath and guiding catheter, there is only 1 published case report.<sup>4</sup> It might be a good option to check the distal radial artery diameter by vascular ultrasonography to see if 7-Fr. sheath is suitable or not. This case highlights the feasibility of re-

puncture of distal radial artery and the snuffbox approach for complex PCI using a 7-Fr. sheath.

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## CONFLICT OF INTEREST STATEMENT

None declared.

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